

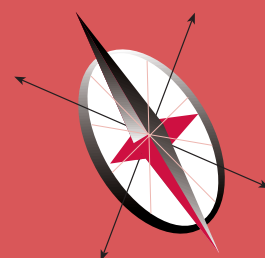
autism

children with autism

strategies for accessing the curriculum
key stages 3&4

department for
education and skills

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acknowledgement

This book is the result of work that began in Lancashire LEA in 1991.

The National Autistic Society (NAS) seconded a member of staff, Mick Connelly, to advise Lancashire with regard to the needs of children with autism.

A part of this work was the development of curriculum access documents. The foundations for this were laid out in the report 'Autism in Lancashire' by the NAS. The curriculum work was then taken forward by the Autism Research Team (1992-1995), The Complex Learning Difficulties service (1995-98), the Blackpool Physical, Sensory and Complex Difficulties Service (1998-1999) and finally the North West SEN Regional Partnership (1999 and ongoing), facilitated by Diane Whalley.

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The document was taken to the Autism Good Practice Working Party at the Department for Educational Skills (DfES) in July 2003, discussed and disseminated for critical commentary. Very positive feedback was received from Nigel Fulton (DfES) and John Brown (CQA) which has been incorporated into the text. Anne Rushton, Senior Educational Psychologist in Manchester, then gave the document a final proof reading.

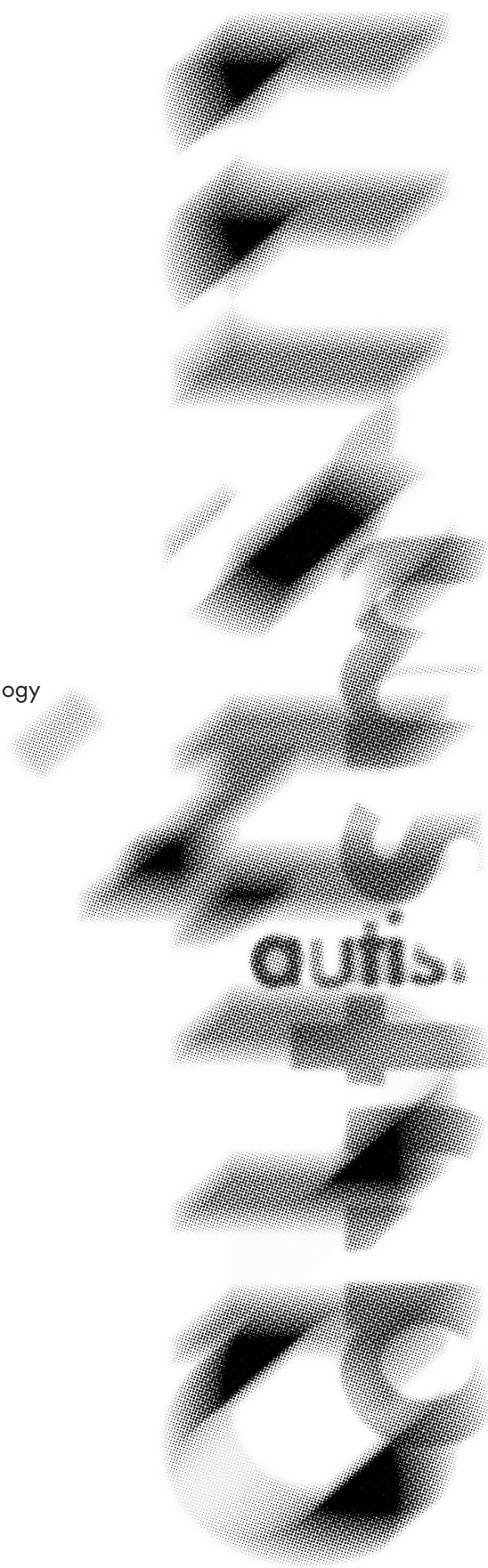
The partnership would like to thank Ian Southern and Amanda Marshall of Lancashire County Council for their forbearance and their unwavering support.

The strategies discussed are the result of real work in real schools. They reflect the ingenuity of dedicated teachers, learning support assistants and parents/carers. Most importantly they reflect upon the amazing nature of pupils with autism. To them, all of us are grateful.



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introduction

autis.



Introduction

Autism, Asperger syndrome, infantile autism, pervasive developmental disorders, these terms and many more are all used to describe individuals with a particular developmental disability. Some features of Autistic Spectrum Disorder (ASD) are also seen in pupils described as having other conditions e.g. Pathological Demand Avoidance syndrome (PDA), Semantic Pragmatic syndrome and Oppositional Defiance Disorder (ODD). Collectively they are referred to as Autistic Spectrum Disorders. Despite the range of terminology used there are common features, which include differences in social development, language and communication development, insistence on sameness and social imagination. This is often accompanied by difficulties processing sensory information. The social impairment is characterised by a level of social detachment and a lack of responsiveness to other people. The communication problems can range from a total lack of language or communication skills to individuals who may speak fluently but with a voice that lacks intonation or expression. They generally find the complexities of language difficult to understand. Individuals are often intolerant of changes in their environment and routine. Despite these collective descriptors the children are as uniquely individual as any other child.

Pupils with an autistic spectrum disorder face great challenges when accessing learning alongside their peers. Their range of ability is as great as the learning difficulties they face. The purpose of this document is two fold. Firstly, it provides colleagues with a framework to help them to a better understanding of the needs of such pupils. Secondly, it provides examples of general strategies around which they may develop short-term targets to meet the objectives outlined in section 3 in the pupil's Statement of Special Educational Needs or at School Action Plus (SA+). This is a working document that will continue to be reviewed, developed and added to in the light of the successful work being undertaken in the many schools in the North West working with pupils with asd. It has been written by practitioners and is intended to be used by practitioners, particularly hard-pressed teachers who have a myriad of other duties and responsibilities.

The current government's policy of promoting educational (and social) inclusion of pupils with special educational needs into mainstream schools means that colleagues on the shop floor will need to be aware of the needs of children with pervasive developmental disorders that are within the autistic landscape. Bearing that in mind, the document includes an outline of Autism and Asperger syndrome as the most common examples of autistic spectrum disorder to be found in mainstream schools.

On the assessment side, there is already a requirement for schools to assess all pupils who have SEN and to prepare individual education plans that address the identified need. This document directly focuses upon assisting this process at Key Stages 3 and 4.

Pupils with an autistic spectrum disorder will be educated in the whole range of provision provided within and outside the local education authority (LEA). However, this document is directed in the main towards those pupils who are within the mainstream sector.

NB Throughout 'he' is used to reflect the male/female ratio. The term asd has been used although it is recognised that this is an over- simplification.





Introduction

"School days provide the earliest opportunity for social contact for the vast majority of people, and yet, I remember those days with trepidation....If only I had had the right sort of professional support at school while on school premises, life would have been so much easier. Someone to make me less oblivious of the impression which I was giving other pupils, and to give strategies". (Thomas Mader)

We hope that this document will be a practical and helpful tool in your day-to-day work.

Mick Connelly

Blackpool Education, Leisure and Cultural Services.

On behalf of the above contributors and the North West SEN Regional Partnership

The document may be accessed as a whole or as subject areas.



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utism & asperger syndrome

Autism is considered to be a disorder of development. The causes of autism still remain unknown although genetic factors, complications in pregnancy or during the child's birth and other medical aspects such as infection, viral disease or even vaccination have all at various times been considered to play some part in the onset of autism. The terms autism and Asperger Syndrome were used and the syndrome described in the early 1940's by Leo Kanner (a psychiatrist working in America) and Hans Asperger (a paediatrician working in Vienna) respectively.

Although we have a greater understanding of prevalence rates there is no consensus. Figures from the MRC's Review of Autism Research: Epidemiology and Causes (Dec 2001) suggest that:

'There appears fairly good agreement that the asd affect approximately 60 per 10,000 under 8 years, of whom 10 - 30 per 10,000 pupils have narrowly defined asd. These estimates confirm that asd is far more common than previously generally recognised.'

It is therefore likely that in each secondary school of 1,000 you could well expect to find at least 6 pupils with asd.

The most consistently held view of asd at present is the result of research by Lorna Wing & Judy Gould working in the late 1970s. They identified the three common features or core aspects of asd, more commonly known as the "Triad of Impairments".

These are:

- impairment of two-way social interaction.
- impairment of verbal and non-verbal communication.
- impairment of flexible thinking and social imagination

Asd is now generally seen as a continuum or a spectrum disorder. Individuals with asd can display a wide range of intellectual ability, from those who are severely intellectually challenged through to some who may be of average or even above average ability. Whatever the ability level of the individual all three core aspects must be present for asd to be identified.

Whilst some parents may be unaware of their child's problems in the very early weeks of life, research indicates that a small number are certain of some abnormality in their child's development before the age of twelve months. Many parents are unaware of any problem until the birth of their second child; (statistically the majority of children with asd are first born). In many cases, it is not until a child enters a pre-school setting and direct comparisons with other children are made, either by the child's parents or professionals that any question of developmental delay is raised. The average age of diagnosis of asd is 5.5 years and for Asperger Syndrome is 11.3 years. Diagnosis often lags behind recognition causing frustration and difficulties amongst parents, teachers and not least pupils.

The majority of pupils at pre-school level will at times display examples of behaviour or a 'lack' of behaviour that can be associated with the 'triad of impairment'. Isolated incidents of impairments of social interaction, communication or rigid thought patterns should not immediately lead to a consideration of asd for any pupils. Repeated evidence of a combination of impairment from all three areas would suggest the need for further assessment.

Impairment in social interaction

Pupils in play schools, nurseries and other pre-school settings are by nature egocentric.

Questions should be asked only:

- if a child consistently shows a marked lack of awareness of others, both adults and peers, particularly
- if the child displays a similar lack of awareness about others' feelings
- if a child is completely unmoved and even unaware of another child's distress
- if distressed does not seek comfort.

Pupils with asd often display a propensity for imitative ability however, they have great difficulty in showing appropriate, social imitation. There are obvious consequences for the child's learning when action-rhyming games etc have little or no social meaning.

There is therefore a delay in the development of social play. Pupils with asd do not actively participate in simple games and may reject, sometimes with extreme force, their parents or other adult's early attempts to join in with them.

Autism is considered to be a disorder of development.

Impairment of communication

From the earliest stages communicative activities will be marked by an 'inappropriateness', and by a lack of communicative intent. Eye-to-eye gaze, use of facial expression to convey information, body posture or gesture, all may be absent or used inappropriately to initiate or modulate social interaction.

In social situations inappropriate body language may be used, such as a child turning their back upon people or getting too close, invading personal space when curious to know more about the person.

Role playing and acting out imaginative activities may not feature in the repertoire of a pupil with asd. This absence limits many opportunities for language and communication development. Older pupils often lack interest in fictional stories preferring factual events or information.

The child's speech is often abnormal with an inability to use volume, pitch, stress, rhythm and intonation appropriately. Speech may be pedantic or have a monotonous tone. Echolalic speech is a common feature, where the child may repeat anything from single words, short phrases through to whole conversations, with little notion of context.

Where language and speech does develop it is often characterised by errors in structure. The child may be unable to use language in an appropriate social context, or may use their own idiosyncratic structure. "Go on green riding" may mean, "I want to go on the swing".

"Go on green riding" may mean, "I want to go on the swing"

Impairment of flexible thinking

As social impairment can be seen to affect language development so impairment in language development has an effect upon the thinking of an individual with asd. A child's inability to make sense of their own environment may result in the child being constantly in conflict with their world. Many researchers believe that individuals resolve such confusion through their insistence on following known routines or their dependence on real objects and their lack of response to people who can be unpredictable. Such views are supported by the writings of the more able individuals with asd who describe their feelings of security developed through such actions.

Wendy Lawson, an adult with asd describes looking at life as a video in which she can't take part.

So pupils may use concrete objects to develop a personal feeling of control. Many pupils with asd develop obsessions for particular objects, often with inappropriate responses, sniffing or smelling them, feeling their textures. Pupils may simply sit spinning the wheels of a toy car or watching the washing machine with fascination or fear.

With a difficulty in making sense of the environment any changes, even trivial aspects such as moving a picture, can alter the child's perception of the whole environment. Changes in routine or environment are unsettling and for individuals to accommodate such changes requires a major effort. Pupils then, will go to extreme lengths to maintain the 'sameness' and any inability to maintain the 'status quo' can cause major problems. This need for security is often manifested in a restricted range of interests. Pupils may line up pieces of Lego, (not building creatively), amass facts about meteorology or pretend to be the same character over and over again.

Christa went away on a school trip and whilst away her mother decorated her bedroom as a nice surprise. Christa destroyed everything in the bedroom on the first night back.

One of the consequences of these impairments is a heightened perceptual difficulty, which reinforces the individual's lack of understanding. Being unable to predict outcomes and events can result in the child developing a high degree of insecurity and anxiety. As a response the child then adopts his or her own unique stress reducing behaviours or coping strategies, commonly at odds with the demands of the school routine.

The aspects of the triad are all inter-linked. Each strand will interact with and affect the others eg a child who is totally detached from others will lack an understanding of the need to communicate. The factors change and shift over time and context rather like a child's kaleidoscope.

note: within the strategies presented it is important to address the 'triad of impairments' rather than the manifest behavioural symptoms, which are themselves a result of the child attempting to come to terms with a confusing and inexplicable environment and social structure.

psychological insights

A great deal of research has been done on the medical understanding of the pathology of asd. Lorna Wing described it as rather like trying to grasp mercury - you think you have it but end up having to chase lots of smaller pieces.

This research is crucially important, however insights from psychological research and studies have far greater implications for the practioners.

Briefly there are three interrelated areas of study:

- Theory of Mind
- Executive Function
- Central Coherence.

Theory of Mind:

A lack of understanding that other people have thoughts, feelings, wishes and desires that are different from their own.

A lack of basic perceptual/affective abilities for the person to engage in "personal relatedness" with others.

"The face bone is connected to the mind bone" (Meltgoff and Gobnick 1993)

Michael came into school and told the teachers that his Grandma had died and his Mum was crying but he didn't know why his Mum was crying.

Implications of Theory of Mind

- predicting behaviour
- reading intentions/motives
- explaining own behaviour
- understanding effects of own behaviour
- communication/language use
- sharing attention/eye contact
- imagination - fiction - role play
- deceiving/understand deception

Executive Function:

Difficulties with problem solving, planning, sequencing, organisation, attention and disinhibition, (often also seen in pupils with ADHD and/or epilepsy).

"Impairment of the ability to maintain an appropriate problem - solving set for the attainment of a future goal" (Lauria 1996)

Gill didn't know when to finish a task and carried on writing until the book was full.

Karen couldn't start an exam paper because she had noticed that the questions were numbered wrongly. Staff had to take the paper away and correctly number it.

Implications of Executive Function Deficit

- difficulty in perceiving emotion
- difficulty in imitation
- difficulty in pretend play
- difficulty in planning
- difficulty in starting and stopping

Central Coherence

The difficulty with taking parts of information and making it into a whole eg seeing the woods for the trees.

"The ability to experience wholes without attention to the constituent parts" (Leo Kanner 1944)

Sheila Griffin took pupils to the woods near her school. They spotted a squirrel sat on top of an overflowing rubbish bin. Simon commented with great excitement 'Look someone's thrown away a perfectly good squirrel'.

Implications of Central Coherence Deficit

- idiosyncratic focus of attention
- imposition of own perspective
- preference for the known
- inattentiveness to new tasks
- difficulty in choosing/prioritising
- difficulty organising self/materials
- difficulty seeing connections/generalising

These psychological insights may be seen to be describing deficits but as they are the learning style of the pupil with asd they could be seen as strengths. The strategies described in this document have tried to incorporate them in a positive way. We believe differences is a better description than difficulty, deficiency, deficit or disability to reflect the way a person with asd views the world.

(with thanks to Julia Dunlop for assisting with the preparation of this material)

Pupils with asd in mainstream schools

Listed below are the three areas of impairment and some of the common characteristics that pupils with asd may display. In addition, poor motor co-ordination and sensory perceptual differences are listed. Although not diagnostic features, they are commonly found in pupils with asd in mainstream education.

1. Impairment of language and communication.

- the pupil has a superficially perfect spoken language, which may seem formal and pedantic.
- their voice may lack expression.
- when listening to others the pupil understands the words rather than the meaning, this is often the case when reading (Known as 'hyperlexia').
- the pupil may understand others in a literal way, without understanding the implications of what has been said.
- the pupil is limited in their use of non-verbal communication and often cannot make sense of the gestures, facial expressions and body language of others.

2. Impaired social interaction.

- the pupil may be socially isolated amongst his peer group (but may not be worried about it) or may wish to join in with his peers but cannot and becomes upset and concerned about it, lacking the strategies to develop and sustain friendship.
- the pupil may feel tense if others approach him and make social demands.
- the pupil fails to pick up social cues and unwritten rules. This makes him appear odd and prone to teasing and ridicule.
- the pupil may behave or use language in a socially inappropriate way.

3. Rigidity of thought and behaviour.

- the pupil may have an all - absorbing interest which peers find unusual.
- the pupil may insist on the adherence to certain routines.
- the development of the ability to think and to play creatively will be limited.
- the pupil will have difficulties in generalising skills from one setting to another.

4. Poor motor co-ordination.

- the pupil may appear gauche in their movements - attracting ridicule from their peers.
- the pupil's presentation of work may be poor and tasks are often unfinished.
- the pupil may have difficulty with self organisation, eg packing school bag, finding way round school.
- the pupil may have difficulties with handwriting and in some cases they may be dyspraxic.
- the pupil's difficulties may be severe enough to warrant the label of 'dyspraxia'.

5 Sensory perceptual differences

- over or under sensitive to smell, taste, touch, sight , sound
- under/over sensitivity to heat and pain.
- inability to filter out extraneous noise/stimuli and focus on the salient information/speaker.
- unusual visual perception, may have difficulties picking out the foreground/background of a picture.
- perseveration on one detail in a picture despite its relevance to the subject.

Strategies

The following suggestions are offered as a series of 'tips' that have been gathered from parents, teachers and support staff. Consideration of these simple 'tips' will aid the drawing up of individual education plans.

Social Interaction.

- understand that the young person may feel threatened by the close proximity of others - especially those his own age.
- allow the young person time for solitary reflection.
- proceed at the young person's pace when trying to develop interaction, it may be necessary to 'move down' developmentally.
- identify what the young person likes and dislikes socially - use this knowledge when planning activities.
- the young person is more likely to interact with familiar people, so give him or her time to get to know you. Introduce new people sensitively.
- do not presume that the young person will want to please you.
- watch for anyone who subtly annoys the young person.
- identify anyone who feeds off and feeds back inappropriate behaviour.
- be aware of the young person's vulnerability that may lead to bullying and teasing.
- peers may need to be shown how the young person with an asd finds things difficult so that they are aware and can help the young person cope with different situations.
- consider the opportunity to work 1:1 with the young person for short periods in a quiet area in order to teach new concepts or to build upon existing ones.
- establish a 'buddy' system in class/school.
- ensure that both staff and peers allow the young person to develop as much independence as possible. Do not do for the young person what he can do himself.
- create co-operative learning opportunities with peers. Build up specific skills through natural activities with one peer, a few peers etc.
- be aware that the young person may be defensive of his own personal space.
- focus on shared interests, use interests and strengths.

The following social skills may need to be taught specifically:

- | | |
|--------------------------------|-------------------------------|
| ● turn taking | ● complimenting |
| ● negotiating | ● responding |
| ● inviting | ● waiting |
| ● greeting | ● repairing breakdowns |
| ● joining others | ● accepting answers of others |
| ● accepting success of others. | ● taking the lead |
| ● following others' ideas | ● joking and 'teasing'. |

Strategies

Communication.

- specifically engage attention visually, verbally or physically.
- slow down the pace.
- give the young person time to respond.
- simplify your language.
- be concrete and specific.
- keep facial expressions and gestures simple and clear.
- give one instruction at a time, not a sequence.
- avoid using vague terms such as; later, maybe 'why did he do that'.
- use gestures, modelling, and demonstration with verbalisation.
- if necessary for understanding, break down tasks into smaller steps.
- give a clear indication of the amount of work required, teach what 'finished' means and what to do next.
- use additional visual (or written) clues to aid the young person's understanding
- sensitive to the young person's attempts to communicate.
- teach the young person how to ask for or refuse help and how to indicate that he needs a break.
- set up situations, which will encourage the young person to communicate.
- don't assume that as the young person has repeated an instruction that he has necessarily understood.
- explain:
 - metaphors (eg 'frog in your throat')
 - idioms (eg 'save your breath')
 - double meanings (most jokes have double meanings)
 - sarcasm (saying 'that was very clever' as a child kicks the ball out of the ground)
 - nicknames
 - cute names (eg 'Sweet', 'Pal', 'Wise guy').
- remember that facial expressions and gestures used in regulating classes - the raised eyebrow or the arms folded while ominously waiting for quiet and other social cues or indicators may not work.
- provide accurate, prior information about change.
- provide accurate prior information about expectations.
- don't rely on emotional appeals.
- don't give options if there are no options - be absolutely consistent.
- teach safety phrases such as 'are you pretending' to give the young person a vocabulary of questions to help them to gain information (they will not know how to do it naturally) so that they can determine the nature of the situation and respond appropriately.

Strategies

- remember an increase in unusual responses probably indicates an increase in stress.
- if the young person becomes agitated understand that the usual strategies for calming a young person (e.g. physical comfort, verbal reasoning) may have the opposite effect and make the situation worse!
- for a young person who has an obsession - don't try to stop it. Make it manageable, limit it and try to use it positively.
- allow modifications as needed to deal with over or under sensitivity to environmental stimuli.
- build in choice making, problem solving and self-reflection.
- avoid pressure to be 'good' or other abstract expectations.
- avoid punitive measures that lower self-esteem, increase anxiety and are not understood.
- disciplinary action should never be contingent upon behaviours that are part of the child's disability:-
 - avoidance of eye contact.
 - talking to self
 - slow response time
 - lack of respect for others.
 - repeating words or phrases.
 - upset in crowd or with noise.
 - anxiety
 - persevering on topics of interest
 - upset caused by change.
- encourage awareness of location of materials and specific activity areas.
- introduce activities to develop gross and fine motor control.
- offer alternative methods for recording activities.
- use labels/diagrams/maps to increase the young person's awareness and understanding of his physical environment.
- if necessary use a sequence of pictures/instructions to develop organisation of materials and activities.
- provide frameworks/scaffolds for activities that require spatial and sequencing skills.
- colour in the areas/ pictures you need the young person to focus on so that it can be recognised against the background.

These strategies should be seen as constructive approaches that address the learning differences of pupils with asd. In this way it enables us to be proactive rather than reactive to the behaviours/responses.

sd at key stages 3 and 4

Adolescence brings physical, intellectual and social changes for all pupils. The challenges faced by pupils with asd stem not from their own, changing behaviour but from the altering expectations of society, educational establishments, and family. It is the difficulties inherent in understanding and responding to these changes that makes adolescence for pupils with asd particularly stressful.

At this age the consequences of the triad of impairment for a pupils with asd are not lessened by the response of those around them. The impact of social naiveties demonstrated by the younger pupils becomes more manifest in the social structure of teenage life and within a secondary school environment.

Social Impairment.

Pupils with ASD will have difficulty in understanding the subtle and unwritten rules of social interaction. They will have difficulty, due to their lack of social empathy in understanding the demands of peers and teachers. As a result their behaviour often will appear odd, unusual, or abnormal in the majority of social contexts, regardless of their age or level of intellectual ability. They do not choose to be different or rebellious or challenge authority, in the way some teenagers do, through dress or habits. Their problem is a lack of intuitive understanding as to how to fit into the social conventions of their school, family and local community. Social impairment, therefore, must be clearly distinguished from anti-social behaviour. Pupils with asd rarely have a good understanding of social rules and thus have no concept of the consequences of breaking them.

Brenda would feel it necessary to explain to the teachers when she felt they had got it wrong. If she felt that the teacher hadn't listened to her she would follow them into the staff room and back them into a corner to explain their mistake.

Again the lack of understanding of the subtle and unwritten rules of social interaction means that very often the pupil's manner is inappropriate to the social situation.

Even in an informal group Richard would stand upright as if he were 'at attention'. He would formally shake hands with other pupils even though he had been with them for the whole of his school life.

John another pupil with asd had learnt that it was polite to say "after you" and allow the person through if there was a queue. This became problematic when queuing up for his lunch in the school canteen he proceeded to allow everybody to go in front of him, saying "after you" as the other pupils arrived.

Peers (who are increasingly fragile in their own self-image) often regard pupils with asd as eccentric.

From being in one class with one teacher, pupils find themselves with several teachers who will probably have little practical experience of the social impairment of pupils with asd. They are mixing with a greater number of peers who, coming from different primary schools, may also have little awareness of autism.

Sam a Y8 youngster was prevented from going to the pupils' toilets by Y7 pupils so logically he went to staff toilets where he was found and given a detention for using them.

asd at key stages 3 and 4

Very often pupils with asd wish to be sociable but fail in their attempts to make relationships with some of their peers. They are often to be found on the edge of the social group as they watch the interaction but do not have the skills to join in or when they do so, may ask embarrassing personal questions and make inappropriate approaches. In some fellow pupils this can evoke sympathy, in others it leaves the pupils with asd vulnerable to teasing and bullying. They become the butt of group jokes thereby reinforcing their failure to make appropriate social overtures.

These pupils have little ability to understand the concept of friendship and the reciprocal sharing of ideas and feelings that this involves. It may be shown as a complete lack of interest in others resulting in a solitary school and home lifestyle. Another pupil with ASD may want friends but try to have a friendship around an imposed set of rules that are followed as if by rote. The comments of an able man with asd throw some light on the complexities of friendship for an individual with asd.

"People seem to expect me to notice them and relate to them no matter who they are, just because they happen to be there. But I don't know who people are. I don't know how (or why) to talk to them. I don't have much sense of people in general as things to be involved with. And I don't know how to have prefabricated relationships. If I happen to be involved with some person in particular, I practically have to learn to talk all over again to develop a common language with that person". (Jim Sinclair).

The pupils may not know how to express sympathy when others are upset or show their own pleasure and happiness.

Richard would not seek comfort when in distress or use physical gestures of empathy, such as shuddering with horror, smiling or grimacing appropriately during a conversation.

"No-one ever bothered to explain to me what words meant. No one ever told me that they expected to see feelings on my face, or that it confused them when I used words without showing corresponding expressions. No one explained what the signals were or how to use them. They simply assumed that if they could not see my feelings, I could not feel them". (Jim Sinclair)

Any work within the secondary school setting that requires working in-groups or within teams will pose problems. The problems already discussed in communication means that co-operative activities present particular problems for the pupils with asd. There is not only the difficulty in learning to communicate with several people but also the pupils often lack an understanding of the rules and conventions of team games, indeed the very concept of a team activity is difficult for them to comprehend. In addition they may struggle to understand how to co-operate and interact with other people in order to achieve a group target.

Rigidity of thought.

The problems inherent in making sense of a constantly changing world to some extent drive the pupil's need for consistency, sameness, a desire for routine. People with their changing voices, clothes and moods are unpredictable. Some pupils with asd prefer attachment to objects. Objects remain the same and are predictable. These may be carried around even when inappropriate. Some researchers feel that there is a link to fundamental language impairment, believing that pupils with asd have an inherent difficulty in applying language or labels to all facets of life, labels for concrete objects being easier to apply than those for emotional or transient states.

sd at key stages 3 and 4

The insistence on sameness, routine and an obsession for real objects are an all too obvious response to the stress and anxiety caused by having to live in a world of which you are unable to make sense.

The insistence on sameness is a major cause of behavioural problems. Where a routine is broken pupils may become anxious or stressed and may respond with tantrums or outbursts: it may be as simple as a change in the morning routine at home, a different route to school or a change of timetable at school for an event or because of exams. (e.g. supply teacher, exam stress)

This rigidity of thought manifests itself in a pupil's literal interpretation of life. The world is seen in very black and white terms, which presents difficulties for the pupils, as they get older. Language may often be taken literally, often causing either amusement or offence.

A teacher should not be surprised if they tell a pupil to "pull their socks up" and that is exactly what they do. Situations where the same word has one or more meanings are fraught with problems. There is also for many pupils with asd an inability to lie. Sometimes their responses are considered to be downright insolent. If a pupils is told to get on with his or her work and they want to do something else they will often simply refuse to do it.

Impairment of communication.

Impairment of communication presents a range of difficulties. Where pupils have spoken language their diction is often rather formal, sometimes 'fussy'; pedantic or 'robot-like'. Very rarely do they adopt a local accent. Often they will fail to adjust their speech to fit in with the social context. Use of language in a social context presents problems. Many pupils with asd are unable to take account of the interests of different listeners but take every opportunity themselves to talk, sometimes at length about their own particular obsession.

Some pupils will display marked impairments of non-verbal means of expression.

Imran does not make eye contact during conversation, shows no facial expression, uses no gesture, does not nod or shake his head in agreement or disagreement and has a monotonous voice.

Joyce makes use of large flailing gestures with no correspondence to what she is saying.

Jake has a vocal intonation that changes markedly from high to low without the usual prosodic fluidity to be found in conversational speech.

The concept of pupils with asd having islets of ability is a common one. Indeed some pupils do display a propensity for certain activities and some have highly developed skills in isolated subjects. These pupils are the exception rather than the rule and in the majority of cases their ability is not functional. The individual may be able to perform calculations in their head involving six figure sums but they could remain unable to solve simple practical problems or shop for themselves.

On a visit to a classroom Thomas asked the educational psychologist to give him a hard sum. 10 x 6 he dismissed as too easy, 104 x 14 was also dismissed until finally 1,234x168 pleased him and he calculated the correct answer.

sd at key stages 3 and 4

The teacher commented that last week Thomas had, a tantrum over the question how many apples are there if there are 3 trees and 4 apples on each tree. He complained that she hadn't taught him how to do that.

Pupils with asd lack skills that most people learn by intuition and 'osmosis'.

They have to ask themselves these questions on a regular basis:

- What would most people think in this situation?
- What would most people expect me to do now?
- What do most people assume I understand?
- What can I assume most people understand without being told?
- How would most people interpret my behaviour in this situation?
- How do I make a choice?

"I understand a lot about not understanding. I usually understand when I don't understand something, and I'm beginning to be able to recognise gaps between what I actually understand and what other people assume I understand. Some of the missing connections that I can finally have are funny and some are sad and some are infuriating. In some ways I am terribly ill-equipped to survive in this life - an extra-terrestrial stranded without an orientation manual". (Jim Sinclair)

"When non-autistic people adopt eccentric behaviour, they have made a conscious choice to be different for any number of reasons. Quite a few people seek attention by deliberately doing bizarre things, especially in highly competitive fields such as rock music. In spite of such diverse motives for eccentric behaviour, non-autistic people have in common one thing that is generally lacking in asd. They are aware that most people will view their unusual behaviour as odd". (Margaret Dewey mother of a pupil with asd)

At the age of around seven years old or maybe younger, boys and girls seem to kick and push each other a lot. Mum has told me that this is often because they actually like the person they are kicking - and AS kids are considered weird!! AS kids reading this, I am not by any means explaining this so that you think you have to do this kind of stuff. Just be yourself. I am merely highlighting the fact that to get to where we are now - a bag of nerves or a gibbering wreck (these both mean very nervous) in the face of a fanciable person - we have not had the same social experiences as non AS kids. (Luke Jackson pupil with asd)

Staff who are working with pupils with asd should address the triad rather than reacting to the behaviour

Look through the behaviour and find the child

subjects

autis.

english key stages 3 and 4

autis.

'English is the language of the future, the language of the computer. English is the most important tool you'll ever need, no matter what career you choose. you have the right to English. Make it your right!' (Benjamin Zephaniah)

Programme of study

Teaching should ensure that work in speaking and listening, reading and writing is integrated. During key stage 3 pupils develop confidence in speaking and writing for public and formal purposes. They also develop their ability to evaluate the way language is used. They read classic and contemporary texts and explore social and moral issues.

During key stage 4 pupils learn to use language confidently, both in their academic studies and for the world beyond school. They use and analyse complex features of language. They are keen readers who can read many kinds of text and make articulate and perceptive comments about them.

Speaking

1) To speak fluently and appropriately in different contexts, adapting their talk for a range of purposes and audiences, including the more formal, pupils should be taught to:

- A structure their talk clearly, using markers so that their listeners can follow their line of thought
- B use illustrations, evidence and anecdote to enrich and explain their ideas
- C use gesture, tone, pace and rhetorical devices for emphasis
- D use visual aids and images to enhance communication
- E vary word choices, including technical vocabulary, and sentence structure for different audiences
- F use spoken standard English fluently in different contexts
- G evaluate the effectiveness of their speech and consider how to adapt it to a range of situations.

Strategy:

Central to the diagnosis of pupils with asd is a degree of social impairment, varying in severity from child to child. A key feature of this difficulty is an inability to empathise with other individuals. Some degree of empathy is obviously essential in understanding the needs of a listener or accepting others' viewpoints. An accompanying aspect of social impairment is an inability to learn and understand the complex rules governing social interaction.

A further aspect of the diagnosis is impairment of language and communication. These impairments make talking generally, and talking in a large group specifically, even more stressful than it is for the majority of pupils. Pupils with ASD often have speech which seems formal and pedantic and lacking in expression. Non-verbal aspects of communication such as facial expression, gesture and body language may be poorly developed or absent altogether. The conventions of conversation, such as taking turns, repairing misunderstandings and demonstrating interest, are also not easily understood. The rules that in 'normal' development are acquired at an early age may require specific teaching.

Giving fluent, unrehearsed talks will be difficult for most pupils with asd and presentations will be challenging. The speech of pupils with asd often lacks differentiation and has a particularly monotonous speech pattern. Whether talking to family, friends or the staff at school pupils will use the same style of speech. This is often a formal style, frequently lacking in local dialect, making them stand out from their peers. Spoken English may be precise and without the accents, overlaps, unfinished phrases, that normal conversation has. Pupils with asd will tend to talk at, rather than to, their audience.

Meena was able to express her ideas and thoughts coherently when using a cassette recorder. Her speech could then be played back to the class making her contribution far less stressful. The technique was so effective in assisting her to develop confidence that she eventually managed to give a talk to the whole school, as a finalist in a public speaking competition.

Pupils with ASD are typically more confident when talking about a preferred topic, but as these may be different than their peers' interests, e.g. supermarket plastic bags, comparative heights of mountains. It is advisable to agree the topic in advance, to avoid social embarrassment.

Any major contribution will require a substantial amount of pre-planning and it may be necessary to be highly prescriptive in telling the pupils how to present oral work. Aspects of communication such as tone and volume of voice, posture and facial expression, accompanying gesture and timing that are either absent or inappropriate, may be developed through additional teaching or speech and language therapy.

Some pupils with asd do appear to enjoy and respond to drama lessons. This may be a means of encouraging them to observe others speaking or by pointing out how other pupils vary their voices for differing audience and then providing an opportunity in a controlled manner to practice such differences themselves. Use may be made of television programmes to help pupils note the differing style of speech used, such as hushed or shouting, and then helping them to understand why.

Some pupils may be able to listen to themselves on a cassette recorder and work out how they can improve their tone and expression. Others may be unable to accept that the recorded voice is theirs. Imitation is a complex skill and, while some pupils with asd seem to be able to imitate naturally, others need to be taught the skill.

Whatever approach is adopted, the generalising of the skills being taught must be carefully considered. It will be a far easier task to teach pupils with asd a range of differing speech patterns than to teach them when to use them. Pupils will not automatically incorporate ideas they, have heard into their own presentations.

The use of appropriate visual aids will be a significant support to a pupil with asd when talking more formally to groups. They will provide either concrete or pictorial references to structure their thoughts. This will also relieve some of their stress, by allowing the pupils to talk 'through' pictures or artifacts and may help make their limited ability to use posture and gesture less apparent. They also help the pupils to focus on the discussion topic.

It may be possible to utilise the specialised interests of such pupils to start them talking. The pupils will be most confident when the talk is based upon, or requires nothing more than, a factual description. When consideration of abstract issues and concepts is required, such as the introduction of new ideas, hypothesis or debating, the disability caused by the pupil's language impairment will become more apparent.

If such an approach is required from the pupils, consider basing the content of the debate or discussion as close as possible upon 'real life' situations and/or characters the pupils knows. The more the pupils can use their own life experiences to work from, the more likely that they will attempt some contribution.

Listening

2) To listen, understand and respond critically to others, pupils should be taught to:

- A concentrate on and recall the main features of a talk, reading, radio or television programme
- B identify the major elements of what is being said both explicitly and implicitly
- C distinguish features of a presentation where a speaker aims to explain, persuade, amuse or argue a case
- D distinguish tone, undertone, implications and other signs of a speaker's intentions
- E recognise when a speaker is being ambiguous or deliberately vague, glosses over points, uses and abuses evidence and makes unsubstantiated statements
- F ask questions and give relevant and helpful comments.

Strategy:

For all pupils who have an autistic spectrum disorder this programme of study will prove to be one of the most difficult targets to achieve. The understanding of speech and language is affected for a pupil with asd by all aspects of the Triad of Impairment, language impairment, fixed and rigid thought structures and impaired social empathy.

"As I grew up, I often had problems following conversations and would often blank out while trying to listen to what other people are saying. Very often in grade school (and on through high school), I would say 'Huh?' or 'What?' because I failed to hear what someone had said to me. This would especially be the case if I had to selectively listen to one person in a room full of chatter or noise." (Sarah) Claire Sainsbury

Many pupils with asd have poor listening skills especially when the topic has little interest for them. Others may listen intently but try and remember everything, failing to be selective and realise the main points or thread of a talk or argument. Details may be noted and remembered while the central theme is forgotten.

Try and prepare the pupils in advance, highlighting the main points to listen for. Simple listening skills may be promoted by activities such as listening for a particular word in readings or T.V. programmes or listening for the answers to questions on a sheet which has multiple choice tick boxes. Be aware though, that many pupils with asd are unable to 'multi-task' in this way (ie. listen and record at the same time).

Speakers often assume a shared knowledge of the world and use these shared 'points of reference' implicitly whilst communicating. Pupils with asd may see the world from a different perspective and may not understand these same viewpoints. They will need to be made more explicit, to help them understand. This will almost always be the case when discussing situations involving an understanding or knowledge of feelings and emotions.

Programmes such as 'Think It - Say It - Improving Reasoning and Organisational Skills' by Luanne Martin, may help develop understanding of inference and reasoning.

Pupils' inflexibility of thought has many consequences in conversations. Jokes, irony and metaphors are rarely understood. Language is translated very literally. Metaphors of speech may be quite alarming when the pupils can only interpret them literally, "I wish the earth would swallow me up", "You would lose your head if it wasn't fixed on." The teacher will need to teach common metaphors quite methodically.

The difference between fact and fiction will require explanation. Inferences will not be drawn and abstract concepts may not be understood. Pupils will take meaning from what the words say and not from what the speaker means.

A common question asked by those with asd is "Why can't people just say what they mean?"

Group discussion and interaction

3) To participate effectively as members of different groups, pupils should be taught to:

- A make different types of contributions to groups, adapting their speech to their listeners and the activity
- B take different views into account and modify their own views in the light of what others say
- C sift, summarise and use the most important points
- D take different roles in the organisation, planning and sustaining of groups
- E help the group to complete its tasks by varying contributions appropriately, clarifying and synthesising others' ideas, taking them forward and building on them to reach different conclusions, negotiating consensus or agreeing to differ.

Strategy:

Many pupils may be anxious in large group situations and will achieve more and possibly at a higher level when working either individually or in a small group. Success is more assured when pupils are encouraged to contribute in small group discussions or debates. The pupils may then be given confidence, through the support of the smaller group, to contribute to a larger class discussion, or may simply have their contribution in the group acknowledged.

It is unlikely that the pupils with asd will be able to extend and develop another person's ideas unless they happen to concur with their own. They may be able to modify their own ideas, however, if given appropriate information and the relevance to their own argument is pointed out.

As indicated previously they are unlikely to understand that opinions can vary and are not necessarily related to fact.

Class debates with no formal structure to them can be the most stressful, and in turn meaningless activity for a pupils with asd. If the activity is to be of more value, the pupils will require a high level of support, most likely 1:1, to help in understanding and responding appropriately. Good support will be essential where, as sometimes can occur, the pupils becomes distressed if ideas expressed are different to their own. They may have difficulty in 'agreeing to differ'. If asked to justify a point of view or explain how their judgement was arrived at, they may be unable to explain how they acquired this knowledge, or identify its basis. Support will be necessary to assist them in analysing and explaining their information to others.

It may be helpful to prepare a framework of questions for the pupils with asd so that they can organise their own thoughts about a subject and then compare them to another person's.

"Social stories may be helpful in explaining how people may react to different situations."
(Carol Gray 1993)

Drama

4) To participate in a range of drama activities and to evaluate their own and others' contributions, pupils should be taught to:

- A use a variety of dramatic techniques to explore ideas, issues, texts and meanings
- B use different ways to convey action, character, atmosphere and tension when they are scripting and performing in plays (for example, through dialogue, movement, pace)
- C appreciate how the structure and organisation of scenes and plays contribute to dramatic effect
- D evaluate critically performances of dramas that they have watched or in which they have taken part.

Strategy:

Some pupils with asd respond well to drama, while others find it very stressful.

Drama can be a useful way of helping pupils with asd develop social skills and understanding and further develops their communication skills. Lunchtime drama clubs are also a useful means of structuring leisure and helping to develop social relationships during what is sometimes, for pupils with asd, a stressful period.

Daniel, 14 years, often had difficulties at lunch times when he was unsure about where to go and what to do. Certain pupils took advantage of his social naivety to tease him. He was encouraged to join the school lunchtime drama club and not only had a more controlled and structured environment but established a friendship and gained self esteem from taking part in the school Christmas production.

Unscripted plays and improvisation are likely to be more difficult than scripted plays but, given the appropriate support, may be useful ways of helping pupils explore different responses to situations.

Gesture, facial expressions and posture can be taught in drama situations but care needs to be taken that the relevance of these to real life situations is pointed out, as the skills may not transfer and generalise automatically.

Language used in drama may cause some difficulties as previously indicated as pupils may interpret literally. ('I'm freezing to death.' 'I'm rather tied up at the moment.')

Pupils will find it difficult to transfer any ability thus learnt to real life situations. Pupils with asd can and do imitate different voices without realising it. They may progress well in a drama session but then use the same voices in class without understanding the meaning behind such actions. They are not being 'cheeky'.

Daniel, a boy with Asperger's syndrome used the teacher's accent to repeat something the teacher had just read.

David, used a variety of accents depending on which bit of learning he was using, as he used the accent of whichever teacher had taught him that particular thing. He had great difficulty in distinguishing relevant factors in learning and used the whole lot, just in case.

In drama there is a need to ensure that pupils are aware that an audience may laugh at the role they are playing but is not laughing at them. It may be necessary to give some pupils with asd characters to play that are not likely to draw reactions from the audience that may cause distress but others may enjoy having a central role which attracts attention. This highlights the need to know the child.

Standard English

5) Pupils should be taught to use the vocabulary, structures and grammar of spoken standard English fluently and accurately in informal and formal situations.

Strategy:

Many pupils will use a formal manner of speech in their everyday life. Even when their parents have marked dialects, they may still tend to speak in a formal, possibly pedantic, and stilted manner. The use of standard English is not therefore, usually a problem. They may, however, be unable to use anything other than standard English styles either in speech or written work. Trying to teach non standard English often leads to it being used in a somewhat artificial way.

Pupils will need some support in deciding appropriate levels of formality for differing situations. They may use a similar style of communication regardless of the audience resulting in inappropriate language to both peers and others. Pupils with asd may greet the head teacher very informally as other pupils might greet their friends in the playground or, alternatively and more often, use very formal language with their peers which singles them out.

Elliot would politely approach another pupils saying "Excuse me. May I borrow your eraser, please? Other pupils in his class would have simply said "Lend us your rubber?"

Language variation

6) Pupils should be taught about how language varies, including:

- A the importance of **standard English** as the language of public communication nationally and often internationally
- B current influences on spoken and written language
- C attitudes to language use
- D the differences between speech and writing
- E the vocabulary and grammar of **standard English** and dialectal variation
- F the development of English, including changes over time, borrowings from other languages, origins of words, and the impact of electronic communication on written language.

Strategy:

Pupils with asd often find the 'technicalities' of language easier than other aspects.

A few pupils find dialects difficult to understand but others like to copy and play around with different dialects.

Nita Jackson describes how she uses a range of dialects, including Glaswegian and West Coast American, but does not have a 'voice' of her own. (Standing Down, Falling Up, Lucky Duck Publishing 2002)

When both the language and setting is outside the experience of the pupils with asd, as in Shakespeare, more frustrations may be apparent and individual support is likely to be needed.

Many pupils talk in a similar manner to their writing, in complete sentences and very formally. They may find it difficult to understand the differences.

".....I rehearsed what I was thinking of saying to the extent that I felt my words were somehow contrived, or artificially constructed to suit the occasion. I actually talked as if reading from a script, despite trying to appear spontaneous, which only isolated me more."
(pp17 Standing Down Falling Up, Nita Jackson)

Reading

Understanding texts

1) To develop understanding and appreciation of texts, pupils should be taught:

Reading for meaning

- A to extract meaning beyond the literal, explaining how the choice of language and style affects implied and explicit meanings
- B to analyse and discuss alternative interpretations, ambiguity and allusion
- C how ideas, values and emotions are explored and portrayed
- D to identify the perspectives offered on individuals, community and society
- E to consider how meanings are changed when texts are adapted to different media
- F to read and appreciate the scope and richness of complete novels, plays and poems

Strategy:

Many of the problems that pupils with asd experience when using spoken language will still apply when reading. They may try to interpret the words very literally, fail to understand the differences between fact and fiction, misunderstand metaphors and similes and are likely to have difficulty in understanding texts at an allegorical level. The literal, rather than the symbolic meaning, is more likely to be grasped.

Some pupils appear to read text very well, but are unable to gain information from what they have read (this is known as hyperlexia). Their comprehension may be improved if the text is read out loud by the teacher or another pupils. They need to read out loud themselves, in order to understand the text, much like a younger child, and cannot read 'in their head'. If this is the case, they should not be told to be quiet, but rather given a quiet place to read where they will not disturb others.

Some pupils are helped by reading to a cassette recorder and listening to it afterwards. Stories on tape, with an accompanying book are useful, providing the recording follows the text exactly.

Many literary works have now been made into films and are available on video. These may help pupils understand both the characters and the story better, providing that they are true to the book.

Andrew, a young boy with Asperger's syndrome, became quite agitated when reading 'Sheep-pig' by Dick King-Smith during year 8. He had seen the video 'Babe' based on the book and was convinced that the book was 'wrong', as it did not follow the video story exactly, and refused to read it.

Many pupils with asd dislike reading fiction books and prefer to read non-fiction, often only books about their own interests. Some pupils will read fiction if it contains aspects of their present interest (eg. books about dinosaurs or space).

Poetry may be enjoyed by the few who like playing games with the sound of words, but may cause confusion to others.

'Hidden' meanings are unlikely to be realised without support.

"I also strongly began to dislike fiction during this period. I somehow got it into my head that since fictional works do not describe actual events, writing fiction is tantamount to lying."
(pp59 *Martian in the Playground*)

Understanding the author's craft

- G how language is used in imaginative, original and diverse ways
- H to reflect on the writer's presentation of ideas and issues, the motivation and behaviour of characters, the development of plot and the overall impact of a text
- I to distinguish between the attitudes and assumptions of characters and those of the author
- J how techniques, structure, forms and styles vary
- K to compare texts, looking at style, theme and language, and identifying connections and contrasts.

Strategy:

Pupils with asd are **unable** to intuitively understand things from different points of view and need to do this quite systematically.

It is often helpful to treat character analysis as a 'detective' game, writing 'clues' down as they arise in a framework. Subtle indications of character will be difficult to understand, as will implied information. The teacher will need to be very supportive and directive.

The teacher will need to make the links between literary works explicit to the pupils with asd and point out the relevance to daily life experiences.

English literary heritage

2) Pupils should be taught:

- A how and why texts have been influential and significant [for example, the influence of Greek myths, the Authorised Version of the Bible, the Arthurian legends]
- B the characteristics of texts that are considered to be of high quality
- C the appeal and importance of these texts over time.

Texts from different cultures and traditions

3) Pupils should be taught:

- A to understand the values and assumptions in the texts
- B the significance of the subject matter and the language
- C the distinctive qualities of literature from different traditions
- D how familiar themes are explored in different cultural contexts [for example, how childhood is portrayed, references to oral or folk traditions]
- E to make connections and comparisons between texts from different cultures.

Strategy:

It will be necessary to make sure that pupils understand the social context of texts. It cannot be assumed that information other pupils would know (eg. that there were no televisions in Victorian times) are also known by the pupils with asd. There are often very wide gaps in their general knowledge due to a narrowed focus, restricted interests and the inability to learn from implication. The teacher will need to ensure that pupils with asd are not ridiculed or teased due to such gaps in their understanding and knowledge.

Many pupils with asd have great difficulty with the concept of time, and change over time, and may not understand texts set in the past, future or in other cultures. Videos and films will help them gain some understanding.

One year 8 boy with asd was being very difficult in his English classes and the advisory teacher went into school to observe what was happening. The class was studying 'Holes', a book about deserts, Detention Centres and authority figures who were evil in character. The pupil had no concept at all about any of these things and his difficult behaviour was a result of confusion and feeling left out of something the other pupils were clearly enjoying.

Difficulties in understanding relevant features of situations, in understanding attitudes (and possible bias), in using imagination and in understanding the viewpoints of others are central to the diagnosis of asd. The teacher should be careful that pupils do not become frustrated and upset at their inability in these areas.

Printed and ICT based information texts

4) To develop their reading of print and ICT based information texts, pupils should be taught to:

- A select, compare and synthesise information from different texts
- B evaluate how information is presented
- C sift the relevant from the irrelevant, and distinguish between fact and opinion, bias and objectivity
- D identify the characteristic features, at word, sentence and text level, of different types of texts.

Strategy:

Many pupils with asd are motivated by ICT and handle information much better this way. They will still need a lot of support, however, to be able to understand the difference between fact and opinion and are unlikely to be able to identify bias, unless the ideas do not concur with their own.

Media and moving image texts

5) Pupils should be taught:

- A how meaning is conveyed in texts that include print, images and sometimes sounds
- B how choice of form, layout and presentation contribute to effect [for example, font, caption, illustration in printed text, sequencing, framing, soundtrack in moving image text]
- C how the nature and purpose of media products influence content and meaning [for example, selection of stories for a front page or news broadcast]
- D how audiences and readers choose and respond to media.

Strategy:

A few groups of young people with asd have used video to try and express their needs, feelings and difficulties with a degree of success, for example A is for Asd, (NAS) and Living With Asperger's (Manchester Aspirations Organisation)

While these videos are about young people with ASD they have been produced in a way that shows how the young people have made choices as to the presentation of information in order to meet the needs of the audience. Some pupils with asd may be motivated by the technical nature of this media.

Newspaper activities may present more difficulties, especially, when is often the case, the activity is introduced as part of a history lesson.

Liam's teacher thought she had been very explicit in telling him what was required when the class were asked to write a front page for a newspaper announcing the birth of Henry the Eighth's son. While explaining, she drew a model on the blackboard, but put wavy lines to indicate where the writing should go. Liam copied the model, complete with wavy lines and was unable to compose any writing of his own without a great deal of support. The teacher wrote him a framework of questions to help, such as what day was it?, What happened? How did Henry feel? Liam was then able to write the events, but could not understand how to make the content exciting or dramatic. He simply answered the questions.

Language structure and variation

7) Pupils should be taught to draw on their knowledge of grammar and language variation to develop their understanding of texts and how language works.

Strategy:

Pupils with asd are likely to find the 'rules' of English grammar easier to understand and can often complete exercises based around these. Organisation and structure of texts will be understood more readily than more abstract matters such as the author's intentions. They may, however, then apply the rules too rigidly and not accept texts where the rules are 'broken' such as in drama or poetry. The apparent 'illogical nature' of certain texts such as poetry may cause confusion or even frustration and/or distress. The teacher is likely to need to be very explicit when pointing out how texts differ in style and try to ensure that the pupils with asd is able to transfer and generalise this knowledge. This can be done by pointing out both similar texts and by using a wide variety of texts, preferably ones that relate to real life experiences and interests of the pupils.

Writing: Composition

1) Pupils should be taught to draw on their reading and knowledge of linguistic and literary forms when composing their writing. Pupils should be taught to:

Writing to imagine, explore, entertain

- A draw on their experience of good fiction, of different poetic forms and of reading, watching and performing in plays
- B use imaginative vocabulary and varied linguistic and literary techniques
- C exploit choice of language and structure to achieve particular effects and appeal to the reader
- D use a range of techniques and different ways of organising and structuring material to convey ideas, themes and characters

Strategy:

Pupils with asd are often able to write enthusiastically about topics of their own choice but may need some help in deciding the facts that the reader will need to know and those factors which will make the reading of their work more enjoyable. This needs to be handled sensitively, as the pupil is often having to accept advice without any understanding.

Ben's class were asked to write a short story about an experience they had enjoyed while on holiday. Ben wrote several pages about a fairground he had been to. He described, in great detail, all the mechanics of each ride and how each worked.

He was very upset when the teacher told him it was far too long and very boring. He could not see how other people could fail to be delighted at his descriptions.

Pupils with asd will not draw on their experiences of other work when writing creatively unless the fact that they need to do so is made clear and links between the new work and the previous experiences are pointed out explicitly to them.

Non-fiction texts will be easier than fiction and use should be made of the pupils's own life experiences in order to make the work relevant to them.

They may be helped by story frames which organise written work into introduction, main events and conclusion and guidance can be given as to the length of each section.

Knowing how much to write is often problematic. Pupils are expected to expand answers and information for some activities, but be succinct in others. The teacher needs to give clear guidance as to the amount and type of writing expected.

Writing to inform, explain, describe

- E form sentences and paragraphs that express connections between information and ideas precisely [for example, cause and effect, comparison]
- F use formal and impersonal language and concise expression
- G consider what the reader needs to know and include relevant details
- H present material clearly, using appropriate layout, illustrations and organisation

Strategy:

Writing about their own experiences and interests for reports, pamphlets, reviews, etc will be easier than writing for imaginative purposes, which may be very challenging for many pupils with asd. Straightforward description or explanation will be more likely to achieve good results than writing for argument or persuasion.

Formal letters are likely to be well written, once the format has been taught, but personal letters are more difficult and may be written in a very similar style.

Pupils will need some support in deciding different levels of formality for different situations. They are unlikely to relate their present work to previous experience without the links being pointed out very explicitly to them.

Writing to persuade, argue, advise

- I develop logical arguments and cite evidence
- J use persuasive techniques and rhetorical devices
- K anticipate reader reaction, counter opposing views and use language to gain attention and sustain interest

Strategy:

There is likely to be difficulty in encouraging pupils with asd to reflect on their own writing in terms of clarity and meaning as, if it is clear to them, then they are likely to assume it is clear to everyone else. They will not be able to understand the possible lack of prior information or implicit understanding that others may have and the teacher will need to point it out.

"Similarly, in writing essays, I would often refuse to include particular points because they were so obvious. It had to be explained to me (repeatedly) that, no matter how stupid it seemed to me, I needed to show examiners that I did know this basic material before demonstrating more advanced knowledge." (Clare Sainsbury)

Writing to analyse, review, comment

- L reflect on the nature and significance of the subject matter
- M form their own view, taking into account a range of evidence and opinions
- N organise their ideas and information, distinguishing between analysis and comment
- O take account of how well the reader knows the topic.

Strategy:

Pupils with asd will need support to consider the needs and views of others but may be able to research a subject of interest to him or her and put together a logical analysis of information.

Some pupils will need help in structuring their ideas so that others can follow them and writing to a framework of questions to be answered may be necessary.

Again, distinguishing between fact and opinion may cause problems.

Writing: Planning and drafting

2) To improve and sustain their writing, pupils should be taught to:

- A plan, draft, redraft and proofread their work on paper and on screen
- B judge the extent to which any or all of these processes are needed in specific pieces of writing
- C analyse critically their own and others' writing.

Strategy:

Pupils with asd are often reluctant to rewrite work they have 'done' once. This may be because they have struggled to complete it in the first place, or because they do not feel there is a need. Suggesting that they write up handwritten work on a word-processor often helps.

The pupil with asd is unlikely to use, or see a need to use, imaginative choices of words but may be able to find alternative words when the need is indicated. Support in proof reading is therefore important.

Pupils will have difficulty in evaluating and criticising their own, and other people's work as this involves knowing what is expected by the readers/teachers. These expected outcomes will need to be made explicit in order for any evaluation to take place.

Writing: Punctuation

3) Pupils should be taught to use the full range of punctuation marks correctly to signal sentence structure, and to help the reader.

Writing: Spelling

4) Pupils should be taught to:

- A increase their knowledge of regular patterns of spelling, word families, roots of words and derivations, including stem, prefix, suffix, inflection
- B apply their knowledge of word formation
- C spell increasingly complex polysyllabic words that do not conform to regular patterns
- D check their spelling for errors and use a dictionary when necessary
- E use different kinds of dictionary, thesaurus and spellchecker.

Strategy:

Spelling and punctuation are often strengths of a pupils with asd and do not often cause difficulties unless the pupils also has specific learning difficulties. (Teaching approaches in this case would be the same as those used for other pupils with dyslexia)

Pupils with asd may be asked to help other pupils in this area as a means of raising their self-esteem and peer group status.

Writing: Handwriting and presentation

5) Pupils should be taught to write with fluency and, when required, speed. In presenting final polished work, pupils should be taught to:

- A ensure that work is neat and clear
- B write legibly, if their work is handwritten
- C make full use of different presentational devices where appropriate.

Strategy:

Many pupils with asd have difficulty with fine motor control and this is likely to lead to poorly presented written work. However, many are proficient users of computers and their interest in technology has led to this being an effective motivator in producing work of a much higher standard. They do sometimes reject such items as lap top computers due to the fact that this singles them out even more from their peers. Where other pupils have access to technology and it is a part of the school's everyday life laptops help the pupils take pride in producing work of a higher standard than if they had to rely on writing by hand.

Some pupils may be reliant upon a certain type, colour or brand of pen in order to write, such is their need for consistency.

Daniel took several years to adapt to using different brands of pen and still prefers to use black ink as, otherwise, he needs to go over each words three times in order to 'perceive' it.

Speed is a difficulty and it is often the case that the pupils will need help in taking notes from a speech or lectures and may not be able to keep up with the other pupils when taking notes

from the blackboard. This may result in homework difficulties later as the information needed is not to hand.

Homework may take longer than it would for most pupils and is a source of stress for many pupils with asd who may spend long hours on homework to be told they have not produced enough work.

Examinations also pose difficulties as the concentration needed to write often distracts from the pupils's thought processes. It will be necessary to apply well in advance for any dispensations as the pupils needs may not be readily understood. Pupils can have an amanuensis, extra time and paced into shorter sessions due to their difficulty with multi-tasking. They can also be prompted to move on to the next question.

Pupils who have difficulty in producing spoken language fluently and with ease are not likely to be able to write fluently and with ease.

It is interesting, however, that a number of pupils respond to the fact that writing can be a less direct means of communicating without the social pressure of face to face contact. The growth of mobile phone texting and email has helped many to maintain social links in a manner that is within their control and can be slowed to a level that allows them time to think and adjust.

Writing: Standard English

6) Pupils should be taught about the variations in written Standard English and how they differ from spoken language, and to distinguish varying degrees of formality, selecting appropriately for a task.

Strategy:

Pupils will need a lot of support, although they are more likely to talk as they would write, than write as they would talk. The tendency is towards too much formality.

Standard English is not usually a problem, but using variations may be.

Writing: Language structure

7) Pupils should be taught the principles of sentence grammar and whole text cohesion and use this knowledge in their writing. They should be taught:

- A word classes or parts of speech and their grammatical functions
- B the structure of phrases and clauses and how they can be combined to make complex sentences [for example, coordination and subordination]
- C paragraph structure and how to form different types of paragraph
- D the structure of whole texts, including cohesion, openings and conclusions in different types of writing [for example, through the use of verb tenses, reference chains]
- E the use of appropriate grammatical terminology to reflect on the meaning and clarity of individual sentences [for example, nouns, verbs, adjectives, prepositions, conjunctions, articles].

Strategy:

It is unusual for the grammatical construction of English to pose any difficulties for pupils with asd. Indeed, it is often a strength.

Although English is a difficult subject for pupils with asd, many are overcoming the difficulties to the extent that they are able to write articles and books describing their thoughts, feelings, strengths and difficulties. Luke Jackson, and others, have written, very entertainingly and informatively. A few have been able to write about other subjects and even some thought provoking poetry.

This document should be read in conjunction with The Framework for Teaching English: Years 7, 8 and 9. (DFEE. March 2001) which is based closely on the Programmes of Study for English in the revised National Curriculum of 2000.

mathematics key stages 3 and 4

outis.

mathematics key stage 3 and 4

'Mathematics is not just a collection of skills, it is a way of thinking. It lies at the core of scientific understanding, and of rational and logical argument.' (Dr Colin Sparrow)

Within the triad of impairment, social interaction, communication and flexibility of thought, problems with mathematics and the associated skills are not discretely highlighted. In fact pupils with asd are often perceived as having an excellent mathematical ability. eg the character in the film Rain Man. Some pupils display excellent computational skills and the stereo- type of a 'mathematical genius' is well established.

These skills, however, are often isolated skills, in that they are skills that the pupils cannot use in any practical or real life situation. The difficulties experienced then in both learning and applying mathematical skills can be traced back to the triad of impairment. Mathematics is as much about communication and language, flexibility of thought and social skills as any other curriculum area.

Programme of study

Using and applying number and algebra

Key skills:

Using maths in practical tasks, working on problem solving, communicating mathematically, and developing skills of mathematical reasoning.

Strategy:

Pupils with asd can find some mathematical material more accessible than other material in other curriculum areas. While they may be competent with computational skills they may have difficulties in the areas of estimation, approximation and evaluation, as well as practical problem solving tasks to do with memory, selective attention and the interpretation of feedback. The generalisation of skills and ideas from one area to another may also cause difficulties.

As in any area of work where abstract predictions are required, pupils with asd will find difficulty in making mathematical comparison spontaneously, understanding hypothetical situations and in problem solving. Pupils will understand and respond better if the teaching is firmly based on practical activities that make sense to them.

Junita got an A in GCSE Maths but had to work everything out on paper so that she knew the exact answer. She would become very distressed if there wasn't a precise numerical answer.*

In addition the pupils will require a clear framework, limiting if possible the range of potential answers. Help the pupils by prompting them, through the framework, to identify the relevant parts of the task upon which to focus.

Again when looking at communicating mathematically, practical examples may need to be used that make sense to the pupils. If appropriate, when developing mathematical vocabulary, ensure each term is specifically explained to the pupils. The level of understanding constantly needs to be assessed and assumptions should never be made upon a seemingly high level of mathematical skill. One pupil doing 'A' level Mathematics was still unable to manage his own pocket money. Therefore, care must be taken to ensure that the language used is specific and appropriate to both the pupil and situation.

Numbers and the number system

Key Skills:

Develop a range of computational approaches including the use of calculators and computers with appropriate software, understanding place value, using numerical relationships and solving numerical problems.

Strategy:

Pupils with asd may be able to carry out rapid calculations mentally, but may be unable to perform the calculation on a calculator, simply because they do not understand the process. Ways have to be found to make the process explicit, even when the pupil is correct. In fact it may be better to work on understanding the process involved when they are correct because there will not be the stress that often comes with failure.

Ewan walked out of his GCSE maths exam after 10 mins. When stopped by the exasperated invigilator he explained that he knew all the answers and didn't need to write them down.

The concepts involved in place value and the use of decimals may be difficult for pupils to understand. This is because the 'value' that a number symbol has/may be learned as its unitary value. The idea that a number's position in relation to other symbols will redefine its value may be difficult to grasp. This type of problem with flexible thinking can lead to difficulties in later work but may not be apparent at the time. Assumptions may have been made that because the pupil is able to deal with numbers in particular ways that they actually understand the underlying processes.

Understanding and using relationships between numbers may need specific teaching about each concept. Understanding and generalising facts from one concept to another cannot be taken for granted. Pupils with asd, therefore, will need to practice in a variety of practical situations before it can be certain that they know and understand any particular fact. They will also need to have access to regular practical applications of particular concepts in order that they can better understand particular computational skills.

There needs to be an awareness that an obsessive interest in number facts can develop in some pupils. While this may lead to an increase in learning in those particular areas, the obsessive nature of learning these "facts" for themselves may mean the knowledge learned is not useable because the pupils has not understood the underlying processes.

Because of difficulty in generalisation, the use of, for example, a calculator rather than doing it mentally may be a totally different task for a pupil he has no reflective knowledge about the process.

Strategy:

The use of algebra in mathematics may cause some difficulties for pupils with asd because of the symbolism involved in algebra.

Because a number is already symbolic, it requires a degree of abstract thought to make another symbol stand for a number. This degree of abstract thought may be very difficult for many pupils with asd and requires a great deal of very specific teaching for each algebraic activity that is undertaken.

Rita Jordan points out that "Abstracting the idea of 'unknownness' to attach to the symbol is liable to remain a source of difficulty. Even when the pupils has learned to manipulate the symbol in equations, according to learned (but meaningless) rules."

Space, Shape and Measures

Key Skills:

Problem solving: select the problem-solving strategies to use in geometrical work, and consider and explain the extent to which the selections they made were appropriate.

Communicating: communicate mathematically, with emphasis on a critical examination of the presentation and organisation of results, and on effective use of symbols and geometrical diagrams.

Reasoning: apply mathematical reasoning, progressing from brief mathematical explanations towards full justifications in more complex contexts.

Strategy:

For work in shape, space and measures to have any meaning for the pupils with asd there is a need for the learning to have some functional purpose. In using a variety of different representations and using a wide range of materials, making an appropriate choice may prove difficult for pupils with asd and they will need specific teaching so that they will be able to consider the appropriateness of their choice.

Pupils often show perceptual difficulties and teachers need to be certain that the underlying assumptions in terms of mathematical assumptions are in place.

Perceptual conservation-type activities can cause problems. One boy had great difficulty in seeing 3-dimensional shapes when they are only in 2 dimensions. Computer programs can assist in this, particularly ones that can move shapes around so that you can see them from different perspectives.

Perception is an area that can be difficult for pupils with asd.

Using and applying handling data

Key Skills:

Problem solving

A carry out each of the four aspects of the handling data cycle to solve problems:

- specify the problem and plan: formulate questions in terms of the data needed and consider what inferences can be drawn from the data; decide what data to collect (include sample size and data format) and what statistical analysis is needed.
- collect data from a variety of suitable sources, including experiments and surveys, and primary and secondary sources.
- process and represent the data: turn the raw data into usable information that gives insight into the problem
- interpret and discuss the data: answer the initial question by drawing conclusions from the data

B select the problem-solving strategies to use in statistical work, and monitor their effectiveness (these strategies should address the scale and manageability of the tasks, and should consider whether the mathematics and approach used are delivering the most appropriate solutions)

C communicate mathematically, with emphasis on the use of an increasing range of diagrams and related explanatory text, on the selection of their mathematical presentation, explaining its purpose and approach, and on the use of symbols to convey statistical meaning.

Reasoning

- D** apply mathematical reasoning, explaining and justifying inferences and deductions, justifying arguments and solutions
- E** identify exceptional or unexpected cases when solving statistical problems
- F** explore connections in mathematics and look for relationships between variables when analysing data
- G** recognise the limitations of any assumptions and the effects that varying the assumptions could have on the conclusions drawn from data analysis

Strategy:

Pupils with asd may find difficulty in organising the work needed to undertake any purposeful enquiries and may need assistance in the organisation of their work as well as in the equipment they may need. There may be a need to limit the choices that are available to them, as well as looking at the task when it is completed and reflecting on what has been needed. This will help pupils to work out what they may need in other situations, but even here assistance may be needed because of poor generalisation and organisational skills.

In processing and interpreting data pupils with asd may need assistance in putting the data together so that they are able to process it. They often have a good memory for personal events that are stored in relation to the context of their occurrence, but memories of facts that are stored in terms of their meaning relationships may not be very good. Some pupils do not relate personal events to other peoples' perspectives so that for instance constructing graphs etc are better to be done within the direct experience of the pupils rather than as an abstract concept.

Practical activities such as using the school canteen, paying for a snack or lunch can present problems for pupils. Although they may be able to calculate the amount on paper, they may find it difficult to recognise amounts of money when they are displayed in different ways or when confronted with a different situation. Similarly telling the time may present problems on occasion even though they recognise the time at which familiar, regular events take place. Planning for the next event and getting organised by looking at the time will need to be taught.

Estimating the time and the amount of money may prove particularly difficult for pupils who cannot understand why you would wish to do this.

science key stages 3 and 4

Science key skills 3 and 4

“Studying science teaches us to be good at analysis and helps us to make concrete things simple. It trains minds in a way that industry prizes.” (Brendan O’Neill)

The three areas of study, life processes and living things, materials and their properties and physical processes present no problems specific to asd. The general requirements of science including; systematic enquiry, application of science, the nature of scientific ideas, communication and health and safety, however, raise several issues. There are many aspects of the overall scientific process where pupils with asd will require specific assistance. This is particularly so in Key Stage 4 where the curriculum broadens both in single and double science. The following strategies then will apply to the whole range of general scientific requirements at Key Stage 3 and 4.

Programme of study

Scientific enquiry - ideas and evidence in science

Strategy:

Pupils with asd do not ask ‘how’ and ‘why’ questions spontaneously. The development of scientific enquiry, therefore, will require specific teaching;

- prompt questions, giving examples; “What would happen if...”

To address describing and communicating ideas to a listener or reader:

- work 1:1 to elicit descriptions and ideas and aid recording initially with adult, then attempt paired turn-taking to share descriptions and comparisons

To address responding to others’ ideas:

- establish “rules” in pair-work or small group teaching for listening to others’ ideas and reflecting them back.

In group situations pupils may have difficulty with questions “What will happen if ...?” It is much better to use closed questions that do not require multiple answers or put the questions in a written form with two or three choices.

In group situations use the pupil’s name to keep them focused on what is going on. Avoid “everyone will now.....”

Teachers need to be aware that pupils will have problems in processing and comprehending verbal instructions and will also find difficulties with group instruction.

- If necessary provide instructions for practical work in written format. Ensure pupils have understood any instructions given.

Irritation or anxiety may be expressed in practical tasks therefore:

- recognise source, allow extra time, and help with practical organisation of equipment or space,
- give a visual procedure diagram

To support manipulation in experiments:

- give one small task at a time to accomplish successfully and reward

Science key skills 3 and 4

When using tools and equipment:

- allow extra time for practice until well rehearsed
- ensure rules for use are understood

In situations involving first hand experience, pupils will have difficulty encoding personal experience. Variety and diversity perplex and confuse them. It is therefore better to:

- give clear organisation in terms of rules.
- concentrate on first-hand here and now experiences rather than to expect pupils to make inferences from secondary sources.

Communication is a key difficulty in asd and having a high profile in the science curriculum, pupils with asd will be hindered in experimental and investigative science.

The use of IT is a powerful tool in giving pupils the organisation they need as well as being able to retrieve information when they need it. A suitable programme via a laptop would be an ideal situation or if this is not possible, additional time on a PC working with peers.

When presenting information pupils with asd may well be able to apply logical conventions in the use of diagrams, graphs, tables and charts. Help will need to be given, however, to enable pupils to comprehend the link between the symbolic representation of the chart, picture or diagram and the concept it is representing. For instance a schematic of light paths through prisms, mirrors etc. will need to be available at the same time as the practical experiment. The pupils with asd will have difficulty in understanding the diagram if it is presented afterwards, isolated from the actual experiment.

Investigative skills

Strategy:

The four areas - planning, obtaining and presenting evidence and evaluating are highly problematic to pupils with asd as they involve making predictions, observations, reflections and drawing conclusions and a high degree of intuitive thinking skills. To be accessible for a pupil with asd, science must be based firmly upon aspects, pupils will commonly encounter in everyday life. If concepts are too abstract, pupils will struggle to understand and thus most likely will miss out on crucial concepts. If scientific work can be based around objects and actions that are familiar to the pupils in everyday contexts, the concept being explained is likely to be more meaningful and make more sense. Pupils with asd are also more likely to be able to exercise the skills and develop the necessary understanding when the experience is linked to its practical application. All previous comments about experiments and practical work apply equally.

- Pupils will require clear guidance when planning an experiment and may need initially to choose from two or three options
- Be aware of possible phobias and possible hypersensitivity when exploring new and novel materials. It may be the case that pupils will have to practise using safety glasses for example.

When producing diagrams, drawings, graphs or tables, pupils may have difficulties with organisation and presentation of work. The following may be considered:

- use of a word-processor
- pre-constructed worksheets

Science key skills 3 and 4

Pupils with asd may have difficulty grasping abstract concepts

- use concrete models, diagrams and visual cues

To support hypothesising and investigating:

- make links to previous knowledge
- give restricted multiple choice initially

To encourage relating ideas from one context to another:

- explain processes and make comparisons by example first, then seek comparisons from pupils

To support critical evaluation and consideration of alternatives

- use a routine of 3 standard questions at each major stage of the experiment

Health and Safety Issues

Fears have often been expressed about pupils with asd using potentially dangerous equipment or chemicals, but they can be taught to use these safely. Pupils once given instructions tend to follow them explicitly. They will use the equipment exactly as they are told to use it, in contrast to other pupils who may consider the inherent potential or danger within a situation something to be explored regardless of risk. The more explicit the rules are, the more pupils with asd will feel comfortable following them. Indeed their assiduousness can be problematic.

In one situation where a pupil with asd saw another boy "messing about" with a Bunsen burner whilst the teacher was otherwise occupied, he simply turned off the gas. He then told the teacher what the other pupils had done. At a personal level this insistence on following rules and ensuring that everybody else follows the same rules creates many personal difficulties for pupils with asd.

Group work

Throughout this document examples of ways of providing opportunities for pupils with asd to work in groups are provided. Science specifically often requires that pupils work in groups. This is a particular area where pupils with experience difficulties. This could present problems for the class in general. Throughout all aspects of the curriculum and the pupils' personal and social development, opportunities should be provided to develop appropriate social responses in group situations. Pupils with asd themselves will often prefer to work alone. When working alongside other people they miss social cues, may over-react and can appear rude.

Strategies:

- give specific roles and jobs within groups
- allow opportunities for partner work; turn-taking
- appreciate that social interaction is stressful
- allow opportunities for individual work
- establish "Circle Of Friends" - a group of supportive and sympathetic peers

Literal use of language

Problems can occur with the pupil's literal comprehension of language. This can create particular problems in science work.

Science key skills 3 and 4

Strategies:

- do not assume that the topic of conversation is obvious. Make sure the subject is explicit. subtleties of non-verbal communication are often not understood and additional cues, verbal explanation, visual example will be necessary. Use concrete models, diagrams and visual cues
- develop ways of rewarding pupils for their social skills, e.g. cooperating in a group during a lesson as well as for the work itself. (use rewards that are appropriate to a particular pupil's interest)
- Many pupils with ASD have difficulty learning and retrieving new vocabulary. It will help to have a vocabulary list associated with their science lessons.



design and technology

outis.

“Tell me and I forget it - show me and I may remember - let me do it and I learn.” Learning through making works!” (Pru Leith)

Pupils use a wide range of materials to design and make products. They work out their ideas with some precision, taking into account how products will be used, who will use them, how much they cost and their appearance. They develop their understanding of designing and making by investigating products and finding out about the work of professional designers and manufacturing industry. They use computers, including computer-aided design and manufacture and control software, as an integral part of designing and making. They draw on knowledge and understanding from other areas of the curriculum.

Programme of study

Developing, planning and communicating ideas

Pupils with asd may be able to follow plans, diagrams, methods and recipes but will need support in order to be able to follow them through to a conclusion. They are unlikely to be spontaneously creative.

Strategy:

The links between ‘old’ and ‘new’ learning will need to be made explicit for these pupils and they are likely to need guidance in the form of detailed and structured questions in order to complete any ‘problem solving’ exercises.

Pupils with ASD often have difficulty incorporating others’ ideas into their thinking.

Leonard was unable to accept any ideas different to his own during group work. Teaching him about turn taking and the phrase, ‘I think that we should.....’ to be used either by the teacher or his support worker meant that he was able to allow other’s ideas to be used provided his were also used on occasions.

Pupils with ASD will need help to learn that materials and tools can be used in more than one way and they struggle most of the time to organise themselves. There has to be an understanding of what one wants to do in order to plan for the implementation. These requirements are complex, inter related and abstract and as such can present formidable obstacles. When faced with such complex organisational demands, a pupil may become unable to start a task.

Systematic habits and work routines have been shown to be effective strategies for minimising organisational difficulties. Checklists and visual instructions give pupils with asd concrete support to show what has been completed, what is to do next, and where to end.

Working with tools, equipment, materials and components to produce quality products

A lot of support will be needed in the choice of tools and methods. Pupils may be able to select from a limited choice (e.g. a hammer or a saw, a spoon or a fork) better than if given an open-ended problem. Once pupils with asd have been taught the use of a tool, or shown a method, they are unlikely to forget it but may be resistant to the idea of using that tool in a different way on another occasion or using alternative methods.

Strategy:

Pupils with asd find listening to long explanations difficult. Their short-term auditory memory is often relatively weak and their sequencing skills poor, so remembering the demonstration and explanation in appropriate sequenced order is difficult. Some are unable to listen and watch at the same time. Provide diagrams, lists of instructions, lists of equipment. Show them what they are going to make, where each part fits into the whole. Give them a starting point.

Pupils with asd are easily distracted. They are unable to ignore. Tools available on the bench as the teacher is talking may provide too great a temptation.

Charles was unable to stop touching or using any equipment on his bench whilst the teacher was talking and was unable to listen to the instructions. His support assistant drew a chalk circle in one corner of the bench where he put all his equipment whilst the teacher was talking. This Charles did knowing that he could have it back after the teacher had finished talking.

Many pupils with asd become quite skilled at using construction kits as their use is often logical and orderly and they are often expert at following diagrams.

Pupils with asd may have fine motor difficulties and / or poor spatial awareness. They may need close supervision for safety reasons when using tools or handling hot or dangerous items.

Occasionally, pupils with asd develop obsessions with certain materials and become engrossed in smelling or touching them.

Ian was fascinated by hammering in nails and would hammer in as many nails as he could regardless of the suitability of this to the object he was making.

Other pupils with asd may have phobias about certain materials and colours and be unable to touch them or go near. These are real fears and should be treated with tolerance and specialist advice sought.

Jamie was colour sensitive to green. The sight of it made him physically ill. On being placed at a bench with a green border painted on it he became distressed and anxious. Moving him to another bench with a different border solved the problem.

Once pupils with asd have been taught a 'rule' they will adhere to it rigidly. A pupil taught at an early age not to go near the cooker will have great difficulty in accepting an apparent change in rules when they start food technology.

Similarly, a pupil who has been told not to touch his father's tools will have difficulty in understanding that he is now required to use similar tools. It may be necessary to point out that this is a rule at home but that a different rule exists in school. It may be necessary to enlist parental support and co-operation in this matter.

Evaluating processes and products

The inability to hypothesise and predict (a core deficit in asd) will mean that pupils are likely to need a lot of information and to be given guidelines for the completion of the tasks. There may be an unrealistic view taken of such things as time and cost. Evaluation will therefore be difficult.

Work involving less concrete elements such as electricity and magnetism, are often difficult to teach because their properties are not directly visible.

Pupils with asd will need help and support to;

- work independently and in teams
- apply skills, knowledge and understanding from the programmes of study of other subjects

Strategy:

Pupils with asd will need detailed and specific guidance, preferably in written form, concerning the activities that they are asked to carry out and the information that they will be expected to discover.

Some pupils with asd do not like investigation because of its open-ended nature and their dislike of being 'wrong' but will follow specific guidelines when they are aware of what is likely to happen.

Pupils with asd should be grouped with other pupils who will support and encourage their participation, as group working is often a source of difficulty and stress.

They are also likely to need reminding of previous learning and how it applies to the present activities as their pattern of learning is often very disjointed.

Knowledge and understanding of materials and components

Pupils with asd are unlikely to develop 'knowledge and understanding' but may remember facts and have an interest in certain areas of work.

Strategy:

Pupils with asd may be able to copy a model or follow specific guidelines. They are very unlikely to be able to be spontaneously creative.

It will probably be necessary to link activities with the pupil's own life experiences as considering 'the needs and values of intended users' will otherwise be problematic.

The inability to hypothesise and predict (a core deficit in asd) will mean that the pupils are likely to need a lot of information and guidelines for the completion of tasks. There may be an unrealistic view taken of such things as time and cost and evaluation will, therefore, be difficult. It may help to use specific questions with 'yes' and 'no' answers which are counted up in order to achieve a score to facilitate this.

Once a task has been completed in one way, pupils may not see a need to further develop the idea by using alternative means or to communicate their design ideas. Some pupils are motivated to use computer design but may not cognitively link the designs produced in this way to real life objects.

Knowledge and understanding of systems and control

Pupils with asd are likely to acquire facts rather than develop true understanding. They will require some support and guidance in linking the facts into a coherent whole. It should certainly not be assumed that the pupils will be able to generalise facts and they should be taught and related to as many factors as is practicable.

Sometimes a pupil with asd will become fascinated with certain aspects of technology (eg. bridges; clocks; towers; and engines). It may be possible to utilise these interests in order to develop ideas but care should be taken that the pupil does not become entrenched in non-productive and repetitive activities, which limit other learning activities.

Strategy:

Wherever possible, activities should be linked to the pupil's own interests or life experiences in order both to motivate and make the activities meaningful.

Keiron who was totally absorbed in football to the exclusion of everything else, and otherwise uninterested in technology, was motivated to make a model football stadium, which was used as part of his final assessment.

Health and Safety

Pupils with asd, once given the rules of safety and behaviour, are likely to adhere to these rigidly. However, do not assume that the ordinary awareness and knowledge that pupils of this age usually have will be present.

Pupils with asd, especially if they have been protected against such things, may not have an understanding of words like 'boiling', 'sharp' etc.

Scott, aged ten years, who was aware that he should not go near a kettle or pan, did not understand when the teacher told the class that that a liquid in an unfamiliar container was boiling and put his hand in to test it. He also put his hand into a candle flame on another occasion as he had never seen one before and the teacher, assuming that pupils of this age were aware of the danger, had not warned him.

It will be necessary to be very specific about safety rules at all times and a large proportion of pupils with asd require individual supervision in practical technology lessons.

Pupils with asd often have fine motor difficulties and possible spatial awareness difficulties and may require assistance and/or close supervision when handling potentially dangerous tools or substances. There may be poor organisational skills and untidy working if the rules and order of working are not made explicit enough.

The inability to predict or foresee the consequences of actions on themselves or on others may also lead to difficulties without adequate supervision.



information and communication
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“ICT has enormous potential not just for a National Curriculum. It will change the way we learn as well as the way we work.”
(Chris Yapp)

In key stages 3 and 4 pupils become increasingly independent users of ICT tools and information sources. They have a better understanding of how ICT can help their work in other subjects and develop their ability to judge when and how to use ICT and where it has limitations. They think about the quality and reliability of information, and access and combine increasing amounts of information. They become more focused, efficient and rigorous in their use of ICT, and carry out a range of increasingly complex tasks.

In addition to being an important curricular area, the use of information technology is fast becoming a standard tool for supporting the learning of all pupils. If a pupil normally uses ICT such as a lap top to carry out their work then they should be allowed to use it in examinations. For the vast majority of pupils with asd this aspect will present no problems. They often display an aptitude for technology including microcomputers. The key elements of information technology match to a greater extent than the classroom teacher the needs of a pupils with asd. They are consistent and non-judgmental. The computer's response to the pupil's interaction will never vary. For younger pupils, there is a wide range of software both for mainstream and software designed for special educational needs. Much of the latter software remains appropriate for pupils at all Key Stages.

Emma constantly rubbed out the first letter of her work because it had to be perfect. Once she started word processing she was able to produce half page of writing more than she had ever produced before.

Programme of study

Finding things out

Pupils with asd will have fundamental difficulties when given problems to solve. This will mean that the tasks in many adventure type programmes or simulation programmes will need careful structuring and support.

Developing ideas and making things happen

Any discussion of the role of ICT in modern life will prove difficult for a pupil with asd. The triad of impairment can have the most effect on these aspects of the programme of study. The pupils may simply not have the communication skills to discuss their experiences. Many pupils will find large group situations threatening and will achieve more and possibly at a higher level when working either individually or in a small group. Success is more assured when trying to encourage the pupil's contribution in a small group discussion or debate. Pupils may then be given confidence, through the support of the smaller group; to contribute to a larger class discussion, or may simply have their contribution in the group acknowledged.

Bryony was able to express her ideas and thought coherently when using a cassette recorder.

The pupils will require much more support and aid to discuss experiences and in the case of ICT the computer itself can provide the assistance. They may be able to demonstrate the activity with little need for verbal discussion. They may be able to write out their thoughts using a word processing package appropriate to their ability.

nformation and communication technology

Exchanging and sharing information

Many pupils with asd quickly adapt to the technology involved in using computers and become capable users. Computers are often a powerful motivator. Appropriate software will allow the pupils to develop and present attractive work with good layouts. The provision of appropriate pictures in the form of 'clip art' can help encourage the pupils's thinking and writing. The majority of software for writing will provide a facility for storing word-banks where single words or useful phrases can be stored. Overlay keyboards can also be used to provide easy access to information. Spell-checkers and thesaurus can provide assistance with accuracy and alternatives. Software with speech synthesis can allow pupils to hear what they have written and assess themselves whether it sounds right. The motivational power of ICT may allow pictures to be created using a suitable art package and so to communicate visual ideas.

Reviewing, modifying and evaluating work as it progresses

There is a wide range of high quality, attractive and therefore motivating adventures and simulations. These have been found to be useful for pupils with asd to create a scenario in which they can explore a range of aspects. Again, the motivational aspect of the computer maintains the pupil's interest. The use of such programmes can allow the staff to begin to introduce problem solving activities an area of learning where pupils with asd have significant difficulty.

At this point a word of caution must be given. Pupils with asd do usually display an aptitude for computers. They typically quickly learn the rules of the programme, game or activity. Care must be taken to ensure that the pupil does not become even further isolated. The computer should not become a replacement for the social contact and guidance from the teacher.

Used effectively, pupils with asd can derive many benefits. Carefully planned and supported use of the computer can provide:-

- a safe, non-threatening, non-judgmental learning environment in which there is emotional neutrality, infinite patience and immediate feedback without value judgement. Personal works "on screen" can lend a distancing effect, which supports self-criticism, a particular area of difficulty as many adolescents are hypersensitive to criticism.
- a final presentation that can look as good as anyone else's with mistakes in spelling and grammar corrected via a spell-checker and re-drafting.
- assisted problem-solving without conveying the impression that their communication difficulties are holding the class back or preventing them sharing their own 'innovatory' ideas.
- greater visual clarity compared with hand-written text. Results of surveys/questionnaires can be shown graphically thus reproducing the "visual cueing" to which many pupils respond best.
- interactive packages enhance independent learning and provide almost infinite resource base. In this way a deeper and more reflective outcome can be produced. Information gathering skills like skimming and scanning are learnt along the way and grouping, organising, and classifying become an integral part of the learning process. Carrying out this kind of original research allows for comparison between sources and conclusions are drawn about fact or opinion; intention of writer and how information is presented. This kind of multi-media can present problems from real-life situations. Here there are a wider variety of clues to assist understanding and memory. Previous knowledge is drawn on and connections between events are made easier.

nformation and communication technology

- computer modelling to allow pupils to visualise abstract ideas. It can also facilitate the testing of ideas, which may be too expensive, impracticable or dangerous to try out! ("What if.....?" from a relatively safe position!)
- a way of making changes or alteration to text that is easy, thus allowing focus on the creative process, making writing more closely related to thinking. Use of visual and sound packages further assist and use of picture sequences with speech bubbles can serve to create more extended story or play script. This kind of work can lead naturally to turn-taking, sharing and collaborative styles of working.
- opportunities to use games on the computer. This can have benefit if carefully used. Teachers have noticed that all pupils learn to change the ways in which they play in order to win or improve their score! Some of these games clearly have not only literacy and numeracy benefit but have potential for collaborative learning.

Additionally, when the pupil's ability and experience are carefully matched, paired and shared group work can reduce anxiety about learning and promote greater achievement. Share responsibility for a 'wrong' answer can lead to analysing 'why' and 'how' for next time.

Clearly the teacher must give explicit directions as to what the task is, but most importantly, indicate explicitly that:

- this is a situation in which pupils will be working in groups but will need to produce individual results; or
- pupils are working on a collaborative/co-operative task to produce a group result.

A significant limitation of extensive use of the computer is that it can reduce the need for social interaction. It is worth remembering that certain individuals with asd can develop a particular "affinity" and/or expertise, preferring the computer dominated activity to the complexities of human interaction. Knowing when and how to intervene is therefore of paramount importance to the teacher. The relationship between pupils and teacher changes over time.

Initial stage:

Teacher as manager of pupils' learning - i.e. teacher tells pupils what and how to do it.

Interim stage:

Teacher as adviser to help pupils' set own task and goal - i.e. teacher prompts a logical sequence and outcome, redirecting, suggesting strategies, providing new pieces of information.

Proficient stage:

Teacher is established as a facilitator, but with particular note to the following areas of challenge: -

If introducing pupils to their 'asd' the ability to access asd friendly information is important as well as 'safe' chat line sites (under supervision).

Lunchtime computer clubs can also be a sanctuary for pupils. This is a place where their knowledge and skills are valued and yet the pupils can relax during the 'recreation' time.

history

autis.

"History is made by people. When you understand people you can live a full life." (Charles Miller Smith)

History at Key Stages 3 and 4 is an exciting opportunity for pupils with asd. Learning about significant individuals and events in the history of Britain, Europe and the World should present little difficulty at a factual level. However difficulties may be encountered where pupils are expected to make connections, comparisons, evaluations and analyse. Interpreting events in different ways will need to be taught explicitly and directly rather than relying upon the pupils intuitively grasping an abstract (to him) concept. The emphasis on ICT opportunities should be grasped for pupils with asd particularly where group work is required.

Programme of study

Chronological understanding

Strategy:

The purely factual aspects of history for some pupils with asd can prove an area where they may excel and find great enjoyment. There is much recorded evidence of their abilities to memorise lists of information such as railway timetables. The learning of such aspects as a list of dates of events or a full chronology of say, accessions of kings and queens can for particular pupils prove instinctive. Unfortunately there is rarely a similar ability to evaluate this information or to utilise it to construct a narrative or provide any possible explanation for a series of events.

Helen was on a visit to London with her class and whilst looking at Mansion House she recognised the person coming out as Mrs Thatcher, then Prime Minister. As Mrs Thatcher was getting into her car Helen shouted out, "Mrs Thatcher", followed by the names of all British Prime Ministers from Edward Heath to Walpole. She recounted all these names in accurate chronological order. She had, however, no knowledge of what these people did or the role of a Prime Minister or even how long ago some of them lived. Helen although quite able to memorise chronological events was pointedly unable to make any use of this information in any historical context. Mrs Thatcher looked bemused!

There is a need to provide as many opportunities as possible in the history lesson when the pupils can be provided with information that they can put together in a meaningful way so that the pupils attention is drawn to how particular events go together. They may need explicit opportunities to reflect on the events and directed away from giving a list of unrelated detail when recalling a historical event.

Having commented on the ability of some pupils to memorise lengthy lists, in general pupils with asd show better memory skills when recalling visual images rather than those given verbally. Where possible, it is better to provide visual material and evidence that will help pupils, giving them a clear image rather than an abstract concept to recall. Sequencing of events and activities will be more effective when the pupils can recall visual material. If text is provided as source material one should be aware of the often-superficial reading ability of some pupils with asd. The reading skills may be better than oral skills but often the meaning of words may not always be understood, or the pupils may focus on specific words and not grasp the overall meaning of the whole sentence.

Knowledge and understanding of events, people and changes in the past

Strategy:

Pupils with asd may have a good memory for personal events that are stored in relation to the context of their occurrence, however their general world knowledge or memories of facts stored in terms of their meaning relationships can be limited. Even though they may be able to remember lists of dates etc. it may prove difficult to memorise a story and any attempts to do this may finish up being a list of random details with an inability to explain the essential parts of the historical story.

Louis used to write lists of Kings and Queens names from King Stephen onwards as a de-stresser.

A pupil with asd may have difficulty in comprehension of language and understanding of what is said or written may be very literal. They may understand what the words mean, but not what the speaker or writer intends. This can lead to a number of difficulties ranging from misinterpreting instructions to problems of interpreting different viewpoints etc. in history. To help this you need to check your own language for any ambiguity and be aware of any areas that may lead to misinterpretation, as well as not being misled by the pupils apparent verbal skill which may be superficial.

Historical interpretation

Strategy:

Pupils with asd may have particular difficulty in distinguishing fact from fiction so that where possible it is better if the work being undertaken has an element that can be seen personally by the individual concerned. Looking at history in relation to the local area or a particular pupil's experience may be more meaningful to them.

Pupils with asd have difficulties in understanding how others feel or think. This is often described as a failure to have a theory of mind and it can make it very difficult to look at history from other people's perspectives. It needs to be recognised that this is a central difficulty in asd. It may be useful to set up a discussion on an historical topic that the pupil is able to relate to and then use other pupils to demonstrate different perspectives, e.g. Alan - "I think this" Brian - "I disagree, I think it is" Then help the pupils with asd to identify the different views. "What does Alan think?", "What does Brian think?", "What do you think?".

Patrick was asked to write about suffragettes and even though he had spent a whole lesson on this subject he was unable to complete his homework. When asked which section in the library he might go to find out further information he replied 'farms?'.

It may also be helpful to teach the pupils particular strategies to help them recognise which information is factual and supported by evidence, and which is derived from an individual's point of view. Help a pupil to discriminate between the relevant and the irrelevant by getting him or her to focus on the most important information, possibly by highlighting or providing a list of key words. Indeed for some pupils separating out fact and 'fantasy' is a problem.

Sometimes the pupils will have difficulty with concepts of time and understanding which events happened in recent past and which longer ago. It may be helpful to have a visual time line encompassing the topics that will be covered.

Time must be given to allow for the reflective process.

Historical enquiry

Strategy:

There may be difficulty in the generalisation of information so that the connection between a picture of things in the past and the actual artefact or place may be lost.

Pupils may need more help to organise themselves and they may have to be shown the relevant parts that are being looked at. Misunderstandings can also arise in the way in which the pupils with asd view historical events.

Peter had been studying the First World War and in particular how the German soldiers of the time dressed and the weapons they used. He was enthusiastic about particular parts of the German uniform, such as the helmet. He seemed to accept all this in the historical context of the First World War until he went to a World Cup football match in which Germany was playing. He was very disappointed when the German team came on to the pitch, that they were not all wearing German army uniform and in particular did not have any helmets on!

It is important to remember that pupils with asd have a capacity for such idiosyncratic thought. Care needs to be taken to ensure that such misunderstandings do not arise, because once accepted it may be difficult to introduce alternative perspectives.

Organisation and communication

Strategy:

The pupil with asd may lack personal organisation skills and may find it difficult to gather the items needed to get started on a task. Once they are working on a task they may find it difficult to get the pace of work right. They may also have a problem in setting out their work in a coherent way. Providing a checklist of all the items that they may need can help. It may also be useful to provide an outline showing the particular steps needed in the task, with some indication of how long each step should take. Guidance may also be needed on how to set work out.

Pupils may also have difficulties in the presentation of their work and the use of particular worksheets may help by taking away some of the tedium and give the pupils a better chance of finishing the task. Appropriate use of a computer may also assist in getting good presentation of the work they have done (the use of ICT is a powerful tool here).

Pupils with asd may also find it difficult to cope with the demands made in any collaborative group work in history and there needs to be an awareness of the anxiety that this type of work can cause. There needs to be a development of the positive interaction with others building up to small group work via partner activities. It may also be helpful to give the pupils a very clearly defined role in the group. Initially this may be passive but building up gradually so that they are able to make a bigger contribution to the group (see 'buddies in PSHE').

geography

autis.

“Geography brings theory down to earth. And in a world where 80 per cent of information is referenced to location, it develops spatial awareness.” (Dr Rita Gardner)

Programme of study:

Geographical Enquiry and skills.

The programme of study requires that pupils have the opportunity to investigate places and themes, focussing on ‘where is it’, ‘what is it’, type questions. Looking at how and why things and places change. Looking for geographical patterns and the implications of people’s interaction with their environment. Developing an awareness of a global context and regional interdependency. These skills should be developed through classroom and fieldwork.

Geographical skills to be developed include, identifying appropriate questions and investigation techniques. Collecting recording and presenting evidence. Analysing and evaluating evidence, drawing up conclusions and communicating findings.

Pupils:

- use an extended geographical vocabulary.
- undertake fieldwork
- make and use maps and plans
- gather secondary evidence
- use IT to access and present additional information

The nine areas of thematic study through which the above skills are to be taught do not in themselves present specific difficulties. The problems inherent in studying geography for a pupils with asd lie in the key skills indicated above.

Knowledge and understanding of places

Strategy:

Much of the factual content of geographical work will appeal to the pupils with asd. Gathering facts and figures is a feature that many pupils with asd find easy to cope with. Being asked to gather information about a specific town, country, agricultural system or any similar aspect will rarely present a problem for those pupils with an appropriate reading ability. Indeed a common feature of more able pupils with asd is the collection of detailed facts and figures albeit of often highly specific interests. Pupils will require direct assistance to identify patterns within the information gathered. For instance a pupil may be able to remember the name and location of all the major ports in the world after being asked to find them. He or she would have to be told, however, that the feature these have in common is that they are all by the sea. Simple connections may have to be explicitly taught.

Knowledge and understanding of patterns and processes

Strategy:

A combination of the core deficits of social impairment and language impairment has a direct effect upon much of the key area of developing geographical skills. The level of social impairment makes it difficult for a pupils with asd to show any sense of empathy with others. This makes developing an understanding of how people in different regions function, a difficult procedure. The impairment in language makes it even more problematic for these pupils

to formulate questions that would focus their understanding of the human structure in different regions. Pupils will require assistance to answer seemingly simple questions such as “what is it like?” “why is it changing?”

Map work

Strategy:

The core deficit of flexible thought, characteristic of a pupil with asd will create perceptual difficulties for that pupil when interpreting and understanding much of the geographical evidence and information. As with many subject areas this impairment will present problems for the pupil in coping with much of the symbolic nature of information in geography. Attempting to convince a pupil with asd that the schematic map shows their school when it looks nothing like their school requires a carefully structured approach. Initial work with such geographical evidence as maps, photographs, aerial photographs or computer information will have greater chance of success if it is initially based firmly on aspects well within the pupils own experience. First hand experience will prove easier to work with than expecting pupils to make inferences from secondary sources. Where this is not possible the pupil should at least be able to visualise the areas or aspects from graphical source such as pictures, slides or video. The inability to conceptualise what cannot be seen is difficult enough for all pupils. For those with asd it can lead to fundamental misunderstandings.

However, even in situations involving first hand experience, pupils may have difficulty encoding their personal experience. The very diversity and variety of information may perplex and confuse them. It is much better to base organisation around clear and unambiguous rules. There may be difficulty in the generalisation of information so that it cannot be taken for granted that information that is common to different geographical concepts is linked.

Knowledge and understanding of environmental change and sustainable development

Strategy:

Aspects of geography that require reflection and interpretation can prove problematic. There may be difficulty in the comprehension of language used. Interpretation of what is said or written may be very literal. Pupils with asd often understand what the literal meaning of a word is. They do not understand connotation that is often applied by the speaker or writer. The misinterpretation of instructions can obviously result in the pupil getting work set completely wrong. This is only one of the difficulties that can result! Staff should carefully monitor their own language for any ambiguity. They should be aware of possible sources of misinterpretation of their own language. Some pupils display verbal skills that appear to be as good if not better than their peers. Until the teacher realises a pupil’s apparent verbal ability is purely superficial they will often use language that is far too sophisticated for the pupil to comprehend.

The programme of study requires that the pupils should be taught appropriate geographical vocabulary, such as ‘ecosystem,’ ‘tertiary industry,’ ‘sustainable development’. Such abstract concepts will prove extremely difficult to convey to a pupils with asd. New terminology will be more likely to be understood if it can be displayed in some concrete or graphical form. A verbal discussion will be insufficient for most pupils. In many cases it may be helpful to ask questions about features when out of the school on fieldwork. Successful understanding of concepts will be more likely if the topic is discussed when actually in the field looking at the feature.

Fieldwork

Strategy:

Fieldwork will present problems for pupils with asd. Any changes in routine are problematic with pupils often becoming anxious. It is for this reason that many pupils will demand routine often presenting various levels of challenging behaviour when their routine is upset. Where possible and if this presents a serious problem, arrange for the pupils to undertake their fieldwork within the school grounds or at some location where they are happy. If it is essential that fieldwork is undertaken outside of school then preparation will be necessary to inform the pupils of the potential changes. It may be that learning to accept such changes may be part of a personal development program that could be developed in conjunction with the geography work. If the work involves contact with the general public, completing a questionnaire or visiting another establishment then detailed preparation will again be necessary. (See section on PSHE for further information.)

A buddy system could be utilised to give the pupils some degree of support and back up. It may be that they can gather necessary information on their normal routes to school or elsewhere. Prompt the pupils to make note of things that happen to them on journeys or when looking at geographical features. A possible option is to develop their questioning as paired work. In this approach they would answer specific questions, such as "What is this place like?" together. When questioned at a later point the pupils with asd may be able to answer the question if asked what did their partner see? They are able to give a better answer because they can see the other pupils in relation to the place or route. An alternative support system may be to provide the pupils with a card detailing his or her needs with a contact number for further information.

This may go some way to addressing the problems of generalisation when working with a pupil with asd. It must not be taken for granted that any newly acquired skill will be used in similar situations. A pupil may be taught to look up their home town in an atlas but do not take it for granted that we will be able to look up other places without specific instruction.

Maps, scale, representation

Strategy:

Representations and symbols are areas that can cause problems for pupils with asd. The symbolism involved requires a high degree of abstract thought that would be difficult and therefore any concepts involving symbols, such as map work, may need a greater degree of specific teaching.

Because of the difficulties in perceiving representation in map work, there is a need to start any new work by looking at areas that are familiar or making connections between the new work and the familiar. The idea of representation on maps also needs much work with aerial photos to ensure that they are able to make the connection between the symbol and what it represents.

Communication

Strategy:

The pupil with asd may lack personal organisation and may find it difficult to gather the items needed to get started on a task and that once they are working on a task they may find it difficult to get the pace of work right. They may also have a problem in setting out their work in a coherent way. Providing a checklist of all the items that they may need can help. It may also be useful to provide an outline showing the particular steps needed in the task, with some

indication of how long each step should take. Guidance may also be needed on how to set work out.

Pupils may also have difficulties in the presentation of their work and the use of particular worksheets may help by taking away some of the tedium and give the pupils a better chance of finishing the task. Appropriate use of a computer may also assist in getting good presentation of the work they have done.

Pupils with asd may also find it difficult to cope with the demands made in any collaborative group work in geography and there needs to be an awareness of the anxiety that this type of work can cause. There needs to be a development of the positive interaction with others building up to small group work via partner activities (see 'buddies' in PSHE). It may also be helpful to give the pupils a very clearly defined role in the group. Initially this may be passive, but building up gradually so that they are able to make a bigger contribution to the group.

modern foreign languages

autis.

modern foreign languages

*“Learning a language makes our minds stronger and more flexible. Actually it gives us an entirely new experience of the world.”
(John Cleese)*

One of the key features of pupils with asd is difficulty with many aspects of their first language. They usually understand the literal meanings of words and grammatical construction, but have difficulty with the pragmatics of language. i.e. using language in social situations and knowing what to say and how to talk to others. These difficulties will also be apparent when using a second language.

Programme of study:

Acquiring knowledge and understanding of the target language.

1) Pupils should be taught:

- A the principles and interrelationships of sounds and writing in the target language
- B the grammar of the target language and how to apply it
- C how to express themselves using a range of vocabulary and structure.

Strategy:

Many pupils with asd find the mechanical learning of a modern foreign language relatively easy. They may quickly assimilate the sounds and grammatical rules and learn new vocabulary more rapidly than many of their peers.

However, they do experience great difficulties in social communication skills; so conversations with peers, role-play and shared games are all areas which could cause great anxieties. It may be easier for them to do these activities with an adult, and they may be helped by using visual clues to cue them into the response. Role-play may not be a familiar activity to a pupil who is used to more formal class activities and they will need support and explanations as to what is expected.

Pupils with asd can have difficulties turn-taking, so conversations, which obviously require this, are fraught with difficulties.

Many pupils with asd do not like being singled out in class to answer questions and being asked a question, or being expected to answer, in an unfamiliar language, may cause them even more stress than in other subjects. It may help them to take part in such class activities if the question is written and placed on their desk as an ‘early warning’, giving them time to process and prepare their answer before it is asked verbally.

Developing language skills:

2) Pupils should be taught:

- A how to listen carefully for gist and detail
- B correct pronunciation and intonation
- C how to ask and answer questions
- D how to initiate and develop conversations
- E how to vary the target language to suit context, audience and purpose

modern foreign languages

- F how to adapt language they already know for different contexts
- G strategies for dealing with the unpredictable (for example, unfamiliar language, unexpected responses)
- H techniques for skimming and for scanning written texts for information, including those from ICT based sources
- I how to summarise and report the main points of spoken or written texts, using notes where appropriate
- J how to redraft their writing to improve its accuracy and presentation, including the use of ICT.

Strategy:

Some pupils with asd have great difficulty with listening skills. They often find that, the harder they try and listen, the more difficult it becomes. They are not able to select what is relevant to listen to and may try and listen to, and remember every word, getting frustrated as it becomes more and more difficult. They also find it difficult to 'multi-task' and cannot translate as they listen to another language.

The cassette recordings often used when teaching languages may cause even more frustration and upset for many pupils with asd as they tend to move too fast and have an unfamiliar tone and possible additional noises from the cassette player.

Pupils respond much better if given a high level of visual support such as a written script or, at least, relevant artifacts and pictures.

Conversation skills are poor in their own language so it is unlikely that they will be able to ask questions or initiate conversations in another. They will certainly not be able to vary their language for audience or context as this is an area of difficulty definitive of asd.

It will be possible to teach set conversational routines that may be practised with an adult or supportive peer. It is unlikely that pupils will be able to adapt the language to other situations, or cope with unexpected responses, but may be able to learn to use a simple phrase to explain that they do not understand or know how to respond.

Word or sentence cards would aid recall and act as prompts until the routines are established, so the pupils could concentrate on the social routine initially, and then add the words.

Role play with a sympathetic and supportive peer could help, but be wary of putting the pupils in a larger group situation, or in front of an audience. This could cause stress and make it more difficult to either learn or perform appropriately.

Some pupils with asd have benefited from watching video recordings of themselves speaking the target language and have been able to adjust their accent as a result.

Pupils with asd have difficulty in picking out what is relevant in information and will need support in order to skim and scan written texts or summarise main points. The teacher will need to highlight main points and important information and make sure that the pupil is given plenty of time, and support if necessary, to make notes.

Many pupils with asd have fine motor difficulties and their handwriting may be slow and untidy. They will be more confident and more willing to redraft their work using a word-processor.

modern foreign languages

Developing language learning skills:

3) Pupils should be taught:

- A techniques for memorising words, phrases and short extracts
- B how to use context and other clues to interpret meaning (for example, by identifying the grammatical function of unfamiliar words or similarities with words they know.)
- C to use their knowledge of English or another language when learning the target language
- D how to use dictionaries and other reference materials appropriately and effectively
- E how to develop their independence in learning and using the target language

Strategy:

Most pupils with asd are able to memorise words well. Rote learning is an area of strength, unless the pupil has additional difficulties such as a specific learning difficulties like dyslexia.

They will learn what they have been asked to learn, but may not be able to use the learning in contexts outside of the classroom.

Some pupils with asd have taught themselves a foreign language using computer programmes but are often unable to generalise the learning to other situations.

It may help them to generalise a little if a pen-pal or email contact is set up for them with someone who speaks the target language. They will need to be interested in similar things to the pupils with asd, however, if the contact is to be maintained.

The difficulties that the pupils has in their own language will be also apparent in the target language. Understanding and use of the language will be very literal and rules applied rigidly.

Jonathan had a good knowledge of the French language and was expected to get a good result in his examination. Part of the examination was to translate a letter from French to English. Jonathan became quite agitated and would not translate the letter as it was addressed to 'Cher Richard'. He knew that it was improper to read a letter addressed to someone else.

Developing cultural awareness

4) Pupils should be taught about different countries and cultures by:

- A working with authentic materials in the target language, including some from ICT based sources (for example handwritten texts; newspapers; magazines; books; video; satellite television; texts from the internet)
- B communicating with native speakers (for example, in person, by correspondence)
- C considering their own culture and comparing it with the cultures of the countries and communities where the target language is spoken.
- D considering the experiences and perspectives of people in these countries and communities

modern foreign languages

Strategy:

Pupils will benefit from first-hand experience of people and seeing and handling artifacts from the country of the target language. Videos and films will also be helpful. They may be interested in sampling food or in their own particular area of interest in that country e.g. finding out about train services etc.

Pupils with asd are likely to have a limited understanding of other cultures and countries unless they have travelled and experienced them personally.

Many schools arrange residential trips abroad to support the pupils' language learning. Pupils with asd would need a lot of preparation for such trips.

A 'scrap-book' with photographs from previous school visits, outlining what will happen, how the pupils will travel, where they will stay and what will happen each day, will help the pupils with asd feel more confident. It will be very important to discuss the pupil's individual needs with his parents and individual adult support will probably be required during the trip. Many of the pupils with asd have eating and sleeping routines that are essential to them if they are to cope with unfamiliar surroundings.

Caroline, a young girl with Asperger's syndrome, coped well at high school and felt she had some friends. This all changed when she went to Paris with the school in year 8. She felt very frightened and stressed without all her usual routines and reverted to stereotypical behaviours that she had never, up till then, displayed in school. She describes how her friends then realised how different she was to them and how embarrassed she was at her inability to cope. She was unable to maintain her friendships in school after the trip and her behaviour rapidly deteriorated. She tried to live up to her perception that the other pupils now believed her to be 'weird and wacky' and was excluded from the school by year 9.

Although visual aids and first-hand experiences help the pupils with asd to know the context of the target language, it will be almost impossible for them to understand the perspectives and possible different viewpoints of the people.

It is important, however, that they are given the opportunity to learn about other cultures and countries in order to be able to see themselves as citizens of the world as well as their own immediate communities.



art and design

autis.

art and design

Art and design is not just a subject to learn, but an activity that you can practise: with your hands, your eyes, your whole personality.'
(Quentin Blake, *Children's Laureate*)

Teaching should ensure that investigating and making includes exploring and developing ideas and evaluating and developing work. Knowledge and understanding should inform this process.

Programme of study:

Exploring and developing ideas

There should be few problems in presenting a range of opportunities for pupils with asd unless they have a specific interest. If pupils already work well with pencil and paper getting them to work with another medium will be a process that should not be rushed. If problems arise allow them to continue working in their favoured medium but ask them to try the new medium once they have finished. Attempts to coerce them are highly likely to result in some form of challenging behaviour. This behaviour is more than likely a result of their anxiety than a desire to provoke trouble.

A pupil may prefer to work solo as working in large groups often causes problems for pupils with asd. The very nature of the social impairment aspect of autism can make even working in close proximity to others difficult.

Strategy:

Strategies used when introducing pupils to group work should take account of the pupil's need for routine and 'sameness'. Whichever group the individual is placed in should be carefully chosen and not simply the result of peer grouping. Where possible ensure that;

- the pupil is working with a sympathetic 'buddy' or class member, or working with an adult, or with someone that they know
- give the pupils a specific job in the group so that they know exactly what is expected of them.

Beware when working with some new media of the possibility of hypersensitivity to sensory stimuli. Some pupils may react quite strongly and adversely to unexpected tactile experiences as in finger painting, working with clay. They may object to certain materials in textile work or getting glue on their fingers.

Paul became very distressed on having to work with clay. He flapped his hands, stepped back away from the bench. No amount of coercing and reassurance could produce more than a cursory touch with the tips of his fingers. On being given a pair of rubber gloves such as the first aid people wore, he was able with support to participate and did manage to produce a model.

Some pupils react quite strongly to the smells of the differing media used. Be aware of this. Allow pupils to work with alternative media away from the main group.

Investigating and making art, craft and design

Pupils with asd have problems in using materials and tools in differing ways. The inability to generalise and adapt previous learning to differing situations is part of the core deficit of autism.

Strategy:

Gather resources and materials, using them to stimulate and develop ideas.

Pupils with asd can have problems organising and collating equipment and ideas, so could need specific help with this.

- the help of a sympathetic friend or adult can be crucial in ensuring they have all the appropriate equipment
- the use of any visual clues/written lists can aid their memory, a photograph or picture of the pieces of equipment that they need

Recording responses, including observations**Strategy:**

- the pupil may have difficulty writing. Encourage the use of visual aids (let them draw response) or a computer
- the pupil may not see the 'whole' and may need the help of an adult/buddy

Evaluating and developing work

This is an area where pupils with asd can experience great difficulty. The core deficit of social impairment leaves many pupils incapable of understanding emotions. They can often lack empathy with others. This clearly makes it difficult to understand concepts of emotions and feelings.

Strategy:

- use visual clues, pictures or photographs to attempt to help pupils begin to understand emotions
- use simple, clear, unambiguous language
- let them work with a sympathetic friend

Many pupils with asd do not like having to revisit, adapt or refine their work. Once they believe they have completed a piece of work they will resist having to do this.

Craig became uncooperative on being asked to adapt and refine his art work by adding more and more to it. He was shown the work of others who were doing the same. He eventually became so frustrated and stressed and had to leave the lesson.

To support this:

- show a finished piece of work at the commencement of the topic
- unpick and back track on a finished piece of work
- prior to commencement of topic schedule each session with what they will be doing

The core deficit of rigidity of thought means that many pupils lack the normal imaginative skills of their peers. They often cope much better with real objects and concrete ideas, rather than abstract thought.

- pictures/photographs will help them develop their imaginative thought processes

- allow them to work from models that they can see rather than demanding imaginative responses, for example when drawing a monster provide several models for them to create their own amalgam
- talk ideas through in a 1-1 situation with an adult or 'friend'.

Knowledge and understanding

Pupils should be taught about the visual and tactile qualities of materials and processes and how these can be manipulated and matched to ideas, purposes and audiences

Strategy:

Visual and tactile elements in art could prove to be an area of strength for pupils with asd but take note of previous comments concerning those pupils who may be hypersensitive to smell and touch. Pupils frequently appreciate order and routine, and by the use of visual clues can create some good work. This work, however, could be very 'formal' and they may need help to create an imaginative piece of work. However, they can have a very good eye for detail.

Pupils should be introduced to the work of artists, designers and crafts people from Western Europe and the wider world.

Again as this is a visual area, it could be seen as an area of strength for pupils with asd. They should be able to describe clearly the content of pictures etc. (as long as they can see them), but may have problems explaining the associated moods and emotions. It is also possible that they may 'tune in' to one specific part of the picture and miss the 'whole'. They can become obsessed by certain things and have difficulty moving on from that to other details.

Jason on being asked to draw a picture of a house would start with an item of furniture in his own bedroom and then continue to add more and more until he had eventually drawn the whole of his house in this way, room by room.

Strategy:

- talk to the pupil individually to ensure they have seen the whole picture
- as the pupil to reproduce the picture, or show them a picture done in the same style, it would be possible to ascertain from this if they have assimilated the mood/ethos of the original picture.
- the use of pictures/photographs/artifacts, etc. in class could help pupils to organise their thoughts and also help to compare and contrast.

Breadth of Study: Develop ideas from direct experience and imagination

Pupils with asd may experience difficulty with imaginative thought. Work with autistic savants indicates that while often technically capable at creating representational drawings with meticulous care for detail and perspective, they will only draw exactly what they see. Such individuals rarely if ever draw or paint what they think they have seen. Their pictures will characteristically lack embellishment. They would not add to a picture they have drawn with imaginative detail. However, such traits can be found in the work of many acknowledged masters, for example L S Lowry's meticulous emphasis on detail and perspective and the lack of emphasis upon the 'match stick men'.

Strategy

Imagination allows a pupil to look at ways in which the picture can be changed from accurate representation they have built up to one that shows more imaginative insight.

It is important to allow the pupil time for reflection and to offer support in looking at how the picture can be changed.

Explore and use 2 and 3 dimensional media

For the exploration and the use of 2 and 3 dimensional media to have any meaning for a pupil with asd. The learning needs to have some functional purpose. Making a choice is an area of difficulty for pupils with asd. When asking them to use a variety of methods of representation or a range of materials the very nature of having to make a choice may impede further progress.

Strategy:

Ensure that where there is a choice to be made for a pupil with asd it is a limited choice. Such decision making will require specific teaching as will teaching them to consider whether their choice is appropriate to the task in hand.

Knowledge and Understanding**Strategy:**

The attention to detail given by pupils with autism enables them to be very adept at recognising different styles etc. of different artists or crafts people. There is a need, however, to use pictorial information to assist them in recognising the whole picture and particularly the artists intent. The pupil may be able to identify a particular artists' pictures or style but would not be aware of the feelings and emotions, say from a picture of Hieronymous Bosch.

Symbolism within art will be difficult for many pupils with autism to grasp. For instance within art the use of colour to express mood would often be lost. For the pupils to gain understanding of such perspectives there needs to be time for reflection. Staff should direct pupils to look for detail that is not readily observable.

Pupils should be taught to use materials, tools and techniques for practical work and in accordance with health and safety requirements.

Many pupils with autism have not developed any sense of danger either to themselves or others, therefore this is an area where they may need a lot of assistance.

Strategy:

- show pupil individually how each piece of equipment should be used
- ensure they know the rules surrounding the use of each piece of equipment
- write the rules down so that they can see them visually and not have to remember them
- use clear, unambiguous language. Pupils with asd can take language very literally
- make sure instructions are comprehensive; do not assume pupils with asd know the obvious; they may not do so.

music

autis.

“Music is our daily medicine which aids far better communication with others and ourselves.” (Evelyn Glennie OBE percussionist)

Music at KS3 presents the exciting possibilities of developing social interaction skills in a fun and enjoyable context. The language of music has an inherent structure and predictability that is less complex than normal social communication. Throughout a large number of specialised settings for pupils with asd the role of music is strong. It is used as a tool to help staff communicate with pupils, to help pupils express themselves, as therapy and simply to have fun. It can be a powerful force for calming, de-stressing and creating atmospheres. Music like other ‘creative’ curriculum areas is particularly useful for developing social and communicative interaction skills. However it is a truism that the majority of pupils with asd respond well to music. like any pupils in any school each child will respond individually to sounds and music.

In particular, music offers opportunities to:

- experience a sense of pride and achievement in their own work
- demonstrate their ability in an area not dependent on language skills
- improve listening, concentration and attention skills
- develop imitation skills
- practise turn-taking
- choose, discriminate and justify decisions
- experiment and try new ideas where there are no right or wrong answers
- develop co-ordination and fine motor skills
- support the development of movement and mobility
- encourage co-operation, tolerance and a willingness to work with others
- develop self confidence
- foster community involvement
- involve pupils in activities that may provide a fulfilling hobby or pastime and promote lifelong learning.

Programme of study:

Controlling sounds through singing and playing - performing skills.

- A** sing unison and part songs developing vocal techniques and musical expression.
- B** perform with increasing control of instrument-specific techniques
- C** practise, rehearse and perform with awareness of different parts, the roles and contribution of the different members of the group, and the audience and venue.

Possible strengths of pupils with asd:

- often respond positively to the structured musical elements of rhythm, pattern and pulse.
- find this a low academic demand lesson (limited writing needed) so often respond enthusiastically.
- have an opportunity for success and achievement at the same level as peers.
- may be able to follow notation, keep steady pulse etc with accuracy and attention to detail.

- may find the repetitive nature of practising the same songs/tunes promotes confidence.
- have good rote memory.
- are often interested in managing, organising facts and figures etc. eg might like collecting names of composers.
- show lack of social embarrassment:

All the other pupils were very anxious about how their performances would be seen by their parents/peers and various dignitaries. John had no such fear as central to asd is the inability to take other people's perspectives. John gave the most magnificent rendition during the performance, showing no nerves and was the star of the show.

Pupils with asd may have difficulties with:

- co-operating with others when performing as a group.
- performing for others.
- coping with an audience.
- communicating musical ideas/personal interpretation of music.
- following musical notation, pulse etc with literal rigidity and without creative interpretation.
- interpreting words, phrases in songs especially 'nonsense songs', may object to lack of sense in the language used.
- being hypersensitive to noise.
- being over stimulated by exciting, noisy environment.
- poor concentration and attention skills.

Strategy:

- present tasks in progressive, structured sequences making lesson objectives clear e.g. write on the board or give a task card etc.
- reduce noise levels and irrelevant stimuli when giving group instructions and make directions very specific and with clear intentions, using pupils' names:

The teacher was conducting the group music session, each group was signalled to start playing: 'Drums, now tambourines, the pupils with asd didn't join in when directed - he said "I am not a chime bar".'

- use a 'buddy' to help during 'group' tasks.
- use clear, unambiguous cues, especially visual during 'practice' and performance eg a stop/go/loud/ quiet sign or specific signal with the hand.

A teacher was conducting his session with 'a look' to cue the pupils for their turn. The pupils with ASD needed a buddy to interpret this 'look' for him and cue him in appropriately.

- give a pre-warning before sudden unexpected or unfamiliar sounds, noises - provide means of escape e.g. headphones
- teach pupils how to tell you they aren't coping with noise levels, type of music and teach the coping strategy e.g. leaving room, hands over ears etc.



A particularly tuneless and discordant headmaster led the singing sessions enthusiastically under the misapprehension that he had a quality voice. A pupil with ASD found this so distressing that he became very disruptive and had to be removed.

- focus on a specific object/task to help block out extraneous stimuli and aid concentration.

A pupil who was fidgeting and struggling to concentrate during assemblies was given a piece of blue-tac to fiddle with and focus on which helped him to block the background noise.

- practise performing in front of others, de-sensitising by gradually increasing group size and familiarity of the people.
- use repetition over a longer time frame, introduce song in advance e.g. send home tape, song etc to build up familiarity.
- explain a performance situation and what will be involved eg using a social story
- position appropriately during performance if pupil is anxious eg near exit
- control noise levels, to reduce over stimulation, sensory overload, eg have quiet times during sessions, allow pupils to 'take a break' away from situation.
- make use of headphones to block noise out aid concentration/ focus.
- model and explain how to make a 'creative interpretation' of each piece of music, use terms that make sense or motivate them, eg 'Play this piece like a warrior '.
- tape record or video efforts to compare and contrast and offer suggestions.

Creating and developing musical ideas - composing skills.

Pupils should be taught how:

- A improvise, exploring and developing musical ideas when performing.
- B produce, develop and extend musical ideas, selecting and combining resources within musical structures and given genres, styles and traditions.

Pupils with asd:

- may respond positively to structured rules of composing, numerical nature of chords, intervals etc.
- are motivated and skilled in use of the ICT found in keyboards, software etc.
- display good rote memory for patterns.
- may enjoy the intellectual challenge of composing for a target audience or purpose.
- can be highly motivated as the possibility for success is high.
- have different and unique perspective on tasks which may lead to an innovative result.
- are able to focus, concentrate on task when motivated with intensity.

Pupils with asd may have difficulties with:

- poor organisational skills e.g. never really gets started, doesn't know how to finish.
- lack of flexibility of thought leads to impaired ability at creative leaps, generalisation etc.
- being over stimulated by the instrument and exploring sounds so never really starts composing task.



- the appreciation of others' perceptions/preferences, e.g. struggles to compose a piece for a specified audience or unable to offer opinion about others composition.
- restricted interests and strong preferences resulting in lack of appreciation, interest or motivation to explore different styles, genres etc.

Strategy:

- use ICT resources e.g. software for composing,
- use headphones for concentration.
- making up a composition based on one of their interests, eg a TV programme, computer game, cartoon etc.
- concentrate on the areas they are good at and try not to focus too heavily on deficiency, eg emotional interpretation.
- break task into manageable chunks, spread over time.
- structure multi-layered, open-ended tasks, give one objective at a time e.g. add stresses to a composition first, next add dynamics.
- differentiate task carefully by scaffolding task, using structure e.g. provide the first chord and last chord for each phrase.
- may need repeated modelling of task, demonstrations and examples.
- model tasks clearly, give visual, oral example of how completed task should look/sound.
- start with familiar musical styles and build from what they understand.
- differentiate by outcome, set clear expectations eg the class is composing an 8 bar tune based upon folk music styles, the pupil with ASD is completing a 2 bar repeating pattern tune.

Responding and reviewing - appraising skills.

- A** analyse, evaluate and compare pieces of music.
- B** communicate ideas and feelings about music using expressive language and musical vocabulary to justify their own opinions.
- C** adapt their own musical ideas and refine and improve their own and others' work.

Pupils with asd may:

- show a lack of social constraint leading to open, honest evaluations and may accept critical appreciation easily.
- be able to tackle task at the intellectual level.
- be able to focus on details can be precise and analytical.
- have strong opinions and views.

Pupils with asd may have difficulties with:

- limited communication skills.
- accepting/understanding others' perspectives and subjective viewpoints as valid.
- finding abstract concepts such as feelings, emotions etc very hard to understand.
- appreciating the feelings of others, truthful openness interpreted as rude:
- understanding the more complex, ambivalent emotions and feelings.



- expressive vocabulary.
- and, restricted interests may mean they have had limited exposure to different styles of music, contexts etc.

Strategy:

- provide clear explanations for musical terms e.g. a musical term's booklet/dictionary.
- allow for a longer time span to become familiar with a piece of music, repeat playbacks eg send home a tape etc.
- use verbal means as well as written recording for appreciation questions etc.
- give opportunities for generalisation and practise of a musical term, vocabulary across a range of contexts.
- give clear, written examples and explanations of how to analyse, evaluate and compare music. Keep these written notes to hand as an aide-memoire whenever a pupil engages in such a task.
- differentiate and structure each task accordingly, avoiding open ended questions eg 'describe the changes in dynamics' rather than 'how does this music make you feel?'
- try to get a balance between focussing on their deficiencies and using their strengths.
- use favoured preferences, cartoon/film score etc to motivate interest in listening to music.
- use music at other times to create an atmosphere, tune their ear to listening to different types of music.
- be aware of definite preferences and extreme reactions to types of stimuli.
- try to put the type of music into its real life context eg show video of Chinese life when studying their music.

Listening, and applying knowledge and understanding.

- A** listen with discrimination and to internalise and recall sounds.
- B** identify the expressive use of musical element, devices, tonalities and structures.
- C** Identify the resources, conventions, processes and procedures, including use of ICT, staff notation and other relevant notations, used in selected musical genres, styles and traditions.
- D** identify the contextual influences that affect the way music is created, performed and heard (for example intention, use, venue, occasion, development of resources, impact of ICT, the cultural environment and the contribution of individuals).

These areas are taught through the interrelated skills of performing, composing and appraising that were listed earlier.

physical education

autis.

“Physical education is about pupils learning about themselves: their capabilities, their potential and their limitations. It is the foundation of all sports participation. But it goes beyond the individual and understanding themselves - it’s learning how to work with and to respect others.” (Lucy Pearson, England Cricketer and Teacher)

Teaching should ensure that, when evaluating and improving performance, connections are made between developing, selecting and applying skills, tactics and compositional ideas, and fitness and health.

These requirements present additional learning opportunities for pupils with asd who need to develop an increased awareness of self and others. Emphasis on local community activity and outdoor pursuit provides enhanced access, which could transfer usefully into adult life.

The identified areas of difficulty for pupils with asd are in:

- social interaction, particularly interpersonal exchange
- language and communication, both verbal and non-verbal
- thought and behaviour, showing rigidity of thinking and impaired imagination. additionally,
- difficulties in gross and fine motor skills may be apparent in some pupils.

These pupils may bring a range of strengths and weaknesses to the teaching situation. Some pupils will possess a range of skills which may be compatible with their age group, others will wish to be active but will require a supportive level of adult intervention and some may be significantly dependent on an adult for successful participation.

Aspects of challenge for pupils with asd include:

- social interaction eg turn-taking/sharing/partnerships/team-membership
- language and communication eg following/giving instructions
- thought and behaviour eg problem-solving, predicting/anticipating the problem-solution
- fine and gross motor control eg spatial awareness, planning and sequencing movements.

Aspects of benefit for the pupils with asd include:

- exercise and relaxation is known to reduce stress and anxiety in pupils with asd and is thought to be so useful that exercise prior to a learning activity is sometimes advocated as a mechanism to induce successful academic learning
- increased knowledge of games enhances the chances of inclusion in playground activity or other social exchanges
- developing shared interests may lead to opportunities and confidence in joining clubs, outdoor pursuits, etc.
- learning about rules and team playing and learning how to apply them can help alleviate the burden of appearing as ‘highly individual/eccentric/odd’
- learning about body image in relation to the world assists in development of ‘self’ and ‘other’, cause and effect, essential for the pupils experiencing asd.

Acquiring and developing skills

Although not a core deficit, some pupils with asd may not have naturally good motor control. This is often seen as a general clumsiness in gross motor activities. This will obviously affect their skill acquisition of area. Some pupils with ASD will have problems with:

- planning and intending motor movements
- knowing how to use body space

and may have:

- impairment of messages or information from joints and muscles

Strategy:

- analysing the essential elements of the task and set parameters of level of difficulty and duration
- praise the performance at the pupil's individual level.
- giving clear physical and visual prompts. however, beware of pupils who get upset at being touched at all
- limiting the space being used
- in a one-to-one situation explore space alone with pupils when hall is empty

Selecting and applying skills, tactics and compositional ideas

Often pupils can perseverate with actions. This means that their movements can become "locked". This can be the result of poor ability to organise, plan, or make decisions about movements, especially if the display was shown as continuous movement

Strategy:

- teacher models movements and asks pupils to copy or video model movements and use "freeze frame"
- alternatively, a still video camera linked to a digitizer can create an image or series of images on television to be used as visual cues

Pupils with asd may fail to understand competitive or win/lose situation.

This can be caused by the pupils':

- lack of empathic quality
- poor idea about affecting how others feel or think, impaired motivation to please
- poor sharing of attention
- impaired ability to know what others know
- difficulty in reading non-verbal signals
- poor idea of how to achieve a group target

Strategy:

- demonstrate his or her own and others' enjoyment of the tasks set
- make explicit the "feel good" quality
- use other pupils to illustrate, explaining clearly why they may experience dejection at failure, - point out their self-belief in "the next time" I will improve, do better.

Evaluating and improving performance

There will often be a lack of analytical ability by the pupils, often this is because they do not know how to;

- begin or initiate activities
- carry out or continue activities
- respond to change

Strategy:

- breaking down the task into small individual steps
- teacher partnering the pupils, making explicit what is required and how to do it
- gradually introducing an empathic/ understanding pupils a partner
- increase the numbers of partners gradually

Knowledge and understanding of fitness and health

Pupils with asd often display no sense of danger. This most commonly manifests itself as an apparent lack of "common sense" and arises as a result of a lack of awareness of self - poor idea of their own body in space

Teachers should establish universal rules for where pupils can and cannot go, must or must not do and ensure that they are followed.

Breadth of study

During each key stage, pupils should be taught the knowledge, skills and understanding through four areas of activity. These should include:

A games activities

and three of the following, at least one of which must be *dance* or *gymnastic activities*:

B dance activities

C gymnastic activities

D swimming activities and water safety

E athletic activities

F outdoor and adventurous activities

The following are some points that need to be considered in all areas of study.

Pupils may have problems when following instructions given to the whole class. They might not follow instructions or carrying them out may make an incorrect response. The most likely cause being the level of social impairment and their response to the language used. Unless an instruction is directed specifically at them it is ignored. It may also be because of tunnel attention, eg the spoken label of an item is not connected with the item

Strategy:

- stand close to the apparatus to be used
- give clear, unambiguous instructions a stage at a time

Pupils may display an unwillingness, or avoidance of, or apparent “inability” to follow instructions successfully may be due to a:

- difficulty in receiving any auditory information
- difficulty in processing the information, i.e. knowing what is required and how to demonstrate knowledge of the requirements
- an inability to organise, plan and make a decision

Strategy:

- use of clear visual cues to narrowly focus the pupils to recognise that a particular signal has been given and this requires a particular outcome
- make sure that the pupils knows that he or she is part of a group following universal rules
- a useful “trick” is to ask the pupils to check if everyone else is, “standing still” for example. This has the effect of momentarily distracting the pupils from non-compliance and reinforces the original message
- use visual representation, such as cards with sticker men showing positions, goals/penalties, etc.
- be aware, pupils may now know how to but not why.

Changing for PE

This is an area of possible challenge for pupils with asd. A pupil may resist at this stage by outright refusal or by using a strategy such as crying or having a tantrum. It is not unusual for the pupils to get inadequately changed.

David went to the baths as part of his Year 7 games lessons. He walked out of the changing room naked holding his trunks in his hand. He announced to the staff that his trunks were upside down.

This response may be due to

- the desire for situations to remain constant, often the classroom becomes a safe haven and changing for PE signals a move to somewhere where the rules, activities and interactions all change.
- hypersensitivity to lighting, space, proximity of others, noise of voices raised in changing room or hall
- a lack of social embarrassment
- aversion to bare skin or clothes with different feelings and textures
- aversion to changing clothes,
- change in movement including the altered rate and pace of pupils movement as opposed to seated at desks when the pupils are sat in class

Strategy:

- pre-warn the pupils
- rehearse routine of changing for PE and then cue sequence usually at first and then verbally
- allow more time in a quiet environment

Going into a gym/hall

In some situations the actual act of going into the gym/hall will present problems. Upon going into the hall or gym pupils may become extremely anxious showing signs of distress, crying or even having a full-blown tantrum. They may however just begin pacing up and down or around the perimeter of hall. This reaction could be due to

- the change incurred in the pupil's environment
- the change in acoustics in a hall with most likely an increased noise level
- not understanding the activities
- not liking physical activities at which he or she may not do well due to poor co-ordination
- not being able to cope with the space
- changing gym apparatus
- heightened sensitivity to invasion of private and personal space

Strategy:

- pre-warn the pupils
- prompt change with visual clues
- "Break up" space with floor tape mat, hoop and let pupils use this area initially
- time - gradually increase time spent and numbers of pupils participating
- if the problem is persistent a possible strategy is to allow the use of a personal stereo to block out the echoing noise but this has safety implications, ear-plugs or ear-muffs could be used but with the same reservations

At times of high anxiety and stress and where there is refusal to participate, it is sometimes possible to appoint the pupil as scorer, timekeeper, etc. so that some involvement is maintained. Avoid low-status, menial tasks as this contributes to low self-esteem and confirms lack of skill.

James refused to take part in all games that meant he was wet, cold or dirty. When he was coerced into taking part he made sure that he was sent off. We negotiated which games he would take part in. Consequently he spent the winter months playing badminton with the girls. He was happy because he was warm and dry.

Pupils with asd will find it difficult to use skills developed for one situation in another or to evaluate and improve these sequences. They often lack any ability to generalise skills and thus find it difficult to create sequences from previously learnt skills.

They may display:

- impaired ability to compose or develop and assess imaginative or free expression sequences and to apply aesthetic criteria
- impaired ability to generalise skills
- limited emotional range of expression, spontaneity and development of communicative intent

physical education

Strategy:

- teacher models movements or video or photograph as above
- photographs can be taken of other pupils at work and the pupils asked to select a sequence and copy them
- choose an empathic pupil or pupils to assist

Swimming activities and water safety

Swimming is often a relaxant. There are often local swimming clubs, which are specifically run for pupils with disabilities. Instruction should be very specific with the teacher using the pupil's name frequently. Visual instructions may also need to be used in the interests of safety.

citizenship

outs.

*“Create a society where people matter more than things.”
(Desmond Tutu)*

Citizenship gives contexts in which all pupils can move from a personal view of the world to a much wider perspective, in order to think about other people and ways in which they can make a difference to others and the world around them. Many pupils with asd struggle to understand the world around them especially the social world. Citizenship offers the opportunity to really explore the rules, procedures, laws and conventions that are often hidden and inexplicable to them. As pupils mature they need to continue to explore social issues that may not have been relevant when they were younger. There is also an entitlement for them to have opportunities to express informed opinions and build up vital independent living skills.

In particular Citizenship offers opportunities to:

- explore complex social issues in greater depth.
- learn to express opinions and listen to others in a safe, structured and secure way.
- practise skills that will be important for future independent living.
- learn about the local community and foster community involvement
- find out about local resources that may be important for their adult life and encourage life long learning.
- encourage co-operation, tolerance and a willingness to work with others
- develop self-confidence.
- build independent living skills like taking on responsibilities
- practise turn taking and other more sophisticated communication skills.
- opportunities to use ICT in a structured and active way.
- widen their horizons to encompass other countries/types of society.
- learn about society in greater depth in order to can make more informed decisions in later life.
- improve communication skills, oral presentations, debating skills etc.
- provide a grounding in basic law, obligations they’ll be faced with in society.
- skills enhanced in knowing how and where to find out information about their community/society at large.

Programme of study:

Knowledge and Understanding about Becoming Informed Citizens.

Pupils should be taught about:

- A the legal and human rights and responsibilities underpinning society, basic aspects of the criminal justice system, and how both relate to young people
- B the diversity of national, regional, religious and ethnic identities in the United Kingdom and the need for mutual respect and understanding.
- C central and local government, the public services they offer and how they are financed, and the opportunities to contribute.

- D the key characteristics of parliamentary and other forms of government
- E the electoral system and the importance of voting
- F the work of community-based, national and international voluntary groups
- G the importance of resolving conflict fairly
- H the significance of the media in society
- I the world as a global community, and the political, economic, environmental and social implications of this, and the role of the European Union, the Commonwealth and the United Nations.

Possible strengths of pupils with asd:

- good factual memory.
- often interested in how rules/structures/systems/the law operate.
- logical thinking with literal understanding.
- once taught a skill clearly may use reliably

Pupils with asd may have difficulties with:

- decision making skills.
- the social understanding behind factual knowledge
- understanding relationships
- understanding shades of grey/ambiguity.
- social hierarchies
- resolution of conflict.
- topics beyond experiences and perspective
- abstract concepts.
- the difference between opinion and fact
- analysing information.
- poor self-awareness and reflection skills.
- wanting to follow their own agenda.

and once taught a strategy/technique may only be able to use in a rigid application.

Strategy:

- Never assume prior knowledge, check depth of understanding

Callum asked his parents to tell him all the 'laws' as his homework was to find out a good law and give reasons for it. He couldn't complete this task as he didn't know all the laws.

- start from their own knowledge base, use own experiences e.g. start with school hierarchies before moving onto countrywide.
- use immediate visual experiences eg videos; speakers; visits,
- be specific about learning outcome and objective of session, avoid open-ended questions such as 'how does Parliament vote?'.

- use practical activities eg when discussing voting - carry out a vote in class.
- provide clear handouts with factual lists etc. of key facts, 'need to knows'.
- use scaffolds/frameworks in work sheets.
- explain specific vocabulary carefully - provide meanings before hand.
- flag up and make explicit when an opinion or a fact is being offered.
- play games that focus on 'what is true and what is false'
- use ICT to access/explore subject e.g. Internet.
- limit choices, structure choice/decision making.
- involve parent/home life in exploring issues - preparation,
- explore difficult issues in safe environment/situation e.g. individual discussions before group discussion.
- provide source books, fact books, reference, web pages to fully prepare before topic starts.
- focus on the key points/objectives - help to filter out extraneous information eg use highlighter pens on important text.
- differentiate to take into account language level, concentration and understanding of the subject.
- take the individual learner style into account when delivering topics. Many pupils with asd are very strong visual learners.

Developing skills of enquiry and communication:

Pupils should be taught to:

- A think about topical political, spiritual, moral, social and cultural issues, problems and events by analysing information and its sources, including ICT-based sources
- B justify orally and in writing a personal opinion about such issues, problems or events.
- C contribute to group and exploratory class discussions, and take part in debates.

Possible strengths of pupils with asd:

- strong ICT skills and motivation to use ICT.
- often possess resolute opinions and enjoy expressing them.
- strong analytical skills, enjoy intellectual challenges.
- ability to express self orally often better than in writing.
- able to rise to the occasion - no social embarrassment to hold them back.
- perform well in structured situations like debates that have clear rules for participation, turn taking etc.

Pupils with asd may have difficulties with:

- limited depth and range of vocabulary.
- impaired social understanding.
- accepting and understanding other's viewpoints, perspectives.
- poor oral presentation skills such as debating.

- ability to empathise (see p6).
- negotiation skills.
- turn-taking rules being difficult to understand during open or heated discussions.
- topical issues being beyond experience or interest.
- group discussion especially those involving larger groups could lead to stress, anxiety dealing with raised noise levels, ideas, concepts and rules of discussions etc.
- expressing personal opinions as the topic being discussed is not part of their restricted interests and therefore holds no interest for them.
- lack of motivation to find out about topics.
- reading situations correctly, can get confused by different social cues, expressions etc.

Strategy:

- use peers to model, prompt and explain in their own terms.
- explore any possible literal interpretations and offer different perspectives through role play, visual representations such as 'thought bubbles'.
- provide role/prepare with a learnt role before debates etc.
- practise key skills before hand like 'discussion skills, giving opinions, the difference between opinion and fact.
- play games/ quizzes that focus on listening, taking turns etc.
- models of expectations - allow observation of discussion/debate initially.
- provide clear expectations of how debate/discussions will take place eg use a social story.
- teach acceptable behaviour for leaving if the pupil is easily stressed.
- provide or work with them before hand on a written script/ use notes as an aide memoir.
- use pupils' interests as focus/motivation for some discussions.

Developing skills of participation and responsible action

Pupils should be taught to:

- A use their imagination to consider other people's experiences and be able to think about, express and explain views that are not their own
- B negotiate, decide and take part responsibly in both school and community-based activities
- C reflect on the process of participating.

Possible strengths of pupils with asd:

- may take responsibilities very seriously and be committed to carry them out to the letter.
- may enjoy offering opinion and having the opportunity to talk about their own viewpoints.
- strong intellectual and analytical frame of mind.
- often want to take part in social world but don't know how, lack social skills to access the opportunities.

Pupils with asd may have difficulties with:

- imaginative thinking, which reduces ability to think creatively.
- empathy and understanding others' experiences.
- offering opinions not their own.
- reflection on own behaviour - may not have that level of self-awareness.
- acquiring and applying the sophisticated vocabulary needed.
- literal interpretation of language, social events.
- taking part in community, school activities as may find these social situations very stressful, anxiety inducing.
- key social skills lacking often lead to rejection from peers eg they're not wanted in a club/ not told about a social activity.
- being aware that others think they are different or odd so may avoid social situations out of fear of 'getting it wrong'.

Strategy:

- possible opportunities to join lunchtime clubs where pupils with asd are given opportunities to play games, express their opinions and learn about fairness and diversity as well as listening to others
- organise visits to the bank, Post Office or library to explain how to access local community resources.
- have a place or person to go to in school where problems/issues can be discussed with staff.
- encourage pupils to join activities, to help them to feel part of the school community but provide an appropriate support system e.g. a buddy, befriender, list of rules etc.
- work from strengths and interests to build up responsibilities, wider participation eg could be the moderator for a web debate, could be assigned as a computer tech for a primary aged after school club.
- encourage the taking on of special responsibilities around school e.g. buddy for younger child, message taker.
- work on empathy, carry out 'mind reading' activities (ref. Baron Cohen)
- explain other's opinions using visual approaches eg comic Strip Conversations (ref Gray)
- make use of ICT to express opinions etc chat rooms, forums, emails etc. many people with asd use this method as they find it less socially confusing and are able to engage in this single channel mode.
- allow pupils to participate at their own level/ pace eg may take years/terms before they feel confident enough to express an opinion spontaneously or attend a club but they may observe or attend part of the session.
- use video/ tape recorders/ web cams etc to record and playback to allow time to explore issues, viewpoints etc over longer time frames or as a framework for further exploration.
- may need some very relevant topics to be covered at greater depth and over a longer time span than scheme of work allows, make use of support staff, parents, further individual research etc.

- use social stories to explain how to act in different situations.
- contact local groups that offer support to pupils with asd to access the community eg Aspirations, NAS.
- involve interested peers as volunteers with asd organisations or other SEN groups eg MENCAP, they may bring back a more open attitude about differences to the wider school community.
- include speakers who can explain/talk about their work/understanding of asd as part of the speaker programme, (the pupils may not want others to know about their difference so be sensitive).

personal, social and health education

autis.

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".....helps pupils to lead confident, healthy and responsible lives as individuals and members of society." (DfEE)

"Entitlement and opportunity comes from recognising and valuing difference - not denying it." (Dr Rita Jordan)

Please refer to the general information on asd spectrum disorders and 'Strategies' which can be found earlier in the document and which will inform your practice across all aspects of the National Curriculum and the wider school curriculum.

The importance of PSHE for all pupils, regardless of individual ability, is for them to be able to take their place as a member of their community and society in general.

The aim of the PSHE and citizenship curriculum is to prepare pupils adequately for all aspects of society enabling them:

- to be accepted by society and the communities in which they live
- to form appropriate relationships with their peers, family, at school and in the community
- to develop in a good knowledge of the risks to personal health posed by particular lifestyles and how they might avoid these dangers.
- to develop in them a set of personal values based firmly on those common to their society.

Pupils with an asd spectrum disorder have even more difficulty with such abstract concepts than their peers. The very nature of the core difficulties/differences, outlined earlier in the document, has the most profound effect upon the development of these skills. Adults working with the pupils need to remain constantly aware of the differences and be prepared to implement specific programmes to teach skills and concepts which other pupils acquire as a matter of course.

The following anecdotes illustrate pupils' lack of understanding of socially acceptable structures and their inability to generalise the behaviour they see around them to their own behaviours.

Peter got into trouble with the police because he phoned 999 and complained that no one had told him that the new Mr Bean video was on sale.

Mark was being treated by an occupational therapist as he had a very unusual gait that caused others to laugh at him. After hours of looking at a video taken of Mark in the school playground, it was noted that his walk imitated that of Wallace in the Wallace and Grommit film "The Wrong Trousers". The characters obsessed Mark and he particularly wanted to be like Wallace. He could not understand that other people did not.

Richard was obsessed with "Tom and Jerry" cartoons, to the extent that he would attempt to copy their antics. This resulted in him putting his head through a window, breaking the glass, and shouting "Ka Pow", as in the cartoon. He was completely oblivious of the blood and the fact that he was cut.

On returning home from school Sheila and Michael, twins with asd, would go straight to their bedroom and write out the London Telephone Directory. Their most happy time was when the new phone directory came out and they could then make amendments.

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Jason spoke in perfect imitation of his speech therapist, using very correct English, which was somewhat at odds to his clear ethnic culture. The consequences for him in his own community away from his school was a total inability to fit in. His speech was so different that he was continually mocked, bullied and even beaten up on occasion. Jason could not learn to change his speech and yet could not understand why he was the target of such abuse.

Craig's family were having a meal. At the end of the meal his mother stood up (she was going to make a pot of tea as she always did after the meal). Craig's father said "You sit down, and I will do it". Craig looked at his father and said, "How did you know?" He had no idea how his father was able to know that his mother was going to make a pot of tea.

Pupils with asd spectrum disorder can be seen as being anti social whereas they are actually asocial having to learn and process skills that others acquire at an intuitive/innate level. Teaching self-help skills might be possible but it is far more difficult to teach someone to be intuitively socially adept. Individuals with asd develop their own idiosyncratic view of the world and life. Consequently they also develop an idiosyncratic way in which they cope.

One adult with asd described herself as being like "an anthropologist on Mars". At night she would treat the day and all the situations she had found herself in like a video; she would fast forward - freeze frame, etc. and do this around all the situations of the day until she had understood them as best she could. Having reviewed the day she would wipe it clean just as you would a video.

There is a clear conflict in providing a set of social rules and routines for an individual who sees the world from a different perspective. Our aim should be to enable pupils with asd spectrum disorder to function as independently as possible. Everyone needs to be aware of the implications of their actions for these pupils and the whole school community, aiming to be asd friendly, will contribute to the development of their PSHE skills.

The focus of PSHE at KS3/4 may be on giving pupils opportunities to:

- learn about the nature of friendships and relationships, including sexual relationships.
- recognise the risks in some situations, making safe choices, and communicating the need for, or refusal of, help. This includes basic emergency aid procedures and where to get help.
- appreciate what makes a healthy lifestyle.

Knowledge, skills and understanding

1.Developing confidence and responsibility and making the most of their abilities

Target Area:

Reflect on and assess their strengths in relation to personality, work and leisure (including development of individual abilities, leisure skills, work experience and records of achievement)

Possible strengths of pupils with asd:

- able to follow instructions accurately
- good at routine tasks
- cope well with 'boring' activities/tasks/operations
- specific knowledge around a topic area

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- attention to detail
- follow rules

Activities that are repetitive and perhaps considered monotonous by others such as shelf filling at supermarkets or putting library books back on shelves are often rewarding and interesting to a person with an asd spectrum disorder.

One pupil was never happier than when he was given the task of sorting the typeface characters for the school printing press.

Pupils with asd may have difficulties with:

- following an agenda other than their own
- extending their narrow range of interests
- communicating with unfamiliar people
- managing the social demands of some work placements
- any changes to routines and repetitive interests (which might be considered bizarre by others)
- expressing fears/anxieties
- generalisation
- expectations of using flexible approaches
- problem solving such as "what would happen if" situations

Strategy:

- use the special interest as a motivator, identifying activities and times for the interest
- adapt the curriculum to include the interest, to build confidence and self esteem

Nathan was fascinated and indeed obsessed with 'farm yard manure'. His knowledge of every aspect of manure was prodigious. His support worker suggested to the teacher that Nathan be asked to design and build a muck spreader. The other pupils could then in turn use this model to test the strength of their bridges. All his fine motor skill problems disappeared when Nathan became focussed on building his muck spreader and he was fully involved in a lesson that had been cleverly differentiated'.

Christopher was so interested in cutlery that his parents could no longer face taking him anywhere where they might encounter it, including cafes, supermarkets and department stores. In school his obsession although less pressing could still cause problems. It was decided that rather than attempting to introduce a programme to eradicate this preoccupation it would be better to incorporate a cutlery topic into his course work. Cutlery was researched, books were provided, and a visit to a factory that manufactured cutlery was arranged. The information gathered and developed by Christopher was sufficient for him to give a presentation as part of his GCSE. He was commended by the external examiner who was unaware of Christopher's background for the originality and creativity of his work.

- be proactive in preparing pupils for work experience placements - involve parents.

John's work placement was in a busy local authority office in the town centre. School prepared him for the tasks he would be undertaking during the day (it was also agreed that he would

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work part time) and his mother ensured that he had the skills to travel to and from his placement and to have his lunch. This involved lots of planning by his mother building on John's skills initially travelling together, then shadowing, followed by travelling ahead and meeting him off the bus before finally awaiting a telephone call. Then began the walking from the bus stop to the office. This preparation took place during school time and was felt to be a contributor to a successful work experience for John.

- use interests to develop leisure opportunities.

By allowing pupils time for their own interests which give them confidence and self esteem they are more likely to develop new interests providing enhanced leisure opportunities.

Christopher was allowed time for his special interest his own self-esteem increased; he became more confident and developed new interests. His current interest is in stamps and with the typical obsessive approach he has developed such encyclopedic knowledge of stamps that people from around the world contact him for issues regarding philately.

- provide appropriate opportunities/mechanisms to reduce stress
- share information and be aware that some fears/anxieties may appear absurd to us but are real to the person with asd
- ensure that Records of Achievement reflect the pupils' skills and interests
- consider 'independence and autonomy' versus 'support and guidance' - work towards independence for all pupils but remain aware of the underlying differences of those with asd spectrum disorder and provide an appropriate level of support for tasks/activities
- awareness that people with asd spectrum disorder increasingly infer that others are neuro-typical and they are the ones with 'the problem'
- give specific tasks enabling pupils to see that they have a role to play

One young man could not understand the game of cricket and in the summer would go through depressive periods because he could not play. Then he was introduced to the concept of scoring which he understood and could do - he is now an expert on cricket facts and figures.'

'It is important to remember that we are not aiming to make the pupils with asd 'normal' but to celebrate their strengths and increase the tolerance of the society in which they find themselves.' (Giovanni).

Recognition of emotions and feelings

There is a stereotypical but inaccurate view that individuals with asd do not display emotions or feelings. The challenging behaviours that can be displayed prove otherwise. Certainly subtle expression of emotion is often not recognised and the communicative intent is not understood. Again these are skills that most of us acquire with little or no teaching input.

Possible strengths of pupils with asd:

- awareness on an intellectual level so will know labels and definitions
- display emotions/feelings themselves

Pupils with asd may have difficulties with:

- understanding and responding to feelings and emotion - empathy
- understanding and using facial expressions/body language

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- interpreting the actions of others
- forming relationships

Strategy:

- systematic teaching re: emotions/feelings, facial expressions/body language
- be explicit about the communicative intent of language/expressions...
- use of web cam for facial expressions
- use video to record social situations that can then be revisited and looked at in detail.
- introduce Circle of Friends, Social Stories, Social Scripting, Comic Strip Conversations, Social Communication Groups.

Self esteem and confidence

Possible Strengths of pupils with asd:

- confident when understand what, when and how
- excellent with rote tasks/activities

Pupils with asd may have difficulties with:

- Managing the "social world"

Nicola was given a work experience placement in a local supermarket where she worked in the greengrocery department. While she was very good at making a superb display with all the different varieties of apples neatly arranged and labelled discarding any slightly browned, fruit or vegetables she was less successful with interactions with customers and which went unnoticed by management. Nicola was given a badge to wear "....People are Helpful People" but if a customer asked her where the tinned peas were she became confused and simply told them to go away. On her fourth day she was using a large brush to sweep around the vegetable area when she tripped up a pensioner who happened to be in the way. Nicola was sent back to school in disgrace. She became very depressed and her self-esteem fell, resulting in her becoming completely withdrawn. The only thing that she would say to her mother was that she wanted to go somewhere that was "safe".

- inability to adapt

Strategy:

- prepare the pupils for activities/unfamiliar situations (rehearsal) - use photographs, video as reminders
- identify potential dilemmas/cover all angles
- check understanding
- build on existing skills
- teach through practical experiences (withdrawing money from the bank, paying bills at the Post Office or paying in a shop, cafe etc.)
- provide positive expectations/reinforcement
- involve peers by raising their awareness of asd

Asking Helen's peer group to ignore her odd behaviour but without providing explanations and alternatives did little to improve the relationships within the group and therefore confidence and self esteem.

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- consider sensitive explanations for those with asd so that they are aware of their differences and their strengths

When this was discussed with Luke Jackson (a young person with asd) he described having that information as the start of his life. Matthew made a similar comment and said that he now understood much more about himself and others' responses to him.

2. Developing a healthy, safer lifestyle

Skills for emergency situations and problem solving

Possible strengths of pupils with asd:

- ability to follow instructions
- good at routines

Pupils with asd may have difficulty with:

- dealing with unexpected situations/thinking flexibly

Sam was able to independently travel to school by bus. Generally the school bus was full so Sam always had to stand or sit next to someone. One morning he had to go to the dentist before school, so that when he got on the bus it was nearly empty. He still went upstairs to find someone to sit next to. On this occasion that person happened to be a pensioner, who thought Sam (who was 6'2") was about to attack her and screamed that she was being mugged. The bus was stopped, and the police called. Fortunately the school had provided Sam with a card, informing people that the holder had asd and found certain situations very stressful and difficult to understand. It also stated that if there were any problems the school could be contacted for assistance. The card was produced, explanations were given and Sam was able to complete his journey. While Sam understood what to do on the school bus that did not help his understanding of being able to resolve a developing/unfamiliar situation.

- literal interpretation of instructions/phrases

One teacher was upset that John would not take his work to her when she wrote "See me" in his English book. It was pointed out to her that he could 'see her' and so she needed to be more explicit in her instruction. "Come to my desk at 9.32" was much clearer for John and he appeared at her desk punctually.

Strategy:

- provide concrete experiences and examples
- support verbal instructions with written instructions or symbols
- provide some means of informing others of the differences and difficulties that might arise (explanation/contact card)
- offer clear written instructions
- give clear expectations of the task.
- consider literal understanding
- provide scaffolds so that pupils can record situations which can be revisited to suggest solutions

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Personal hygiene and self worth

Pupils with asd have great difficulties in understanding how they appear to others and the effect of their behaviour. They often have poor personal hygiene habits and skills and whereas most pupils learn from the subtle influence of those around them pupils with asd do not.

Possible strengths of pupils with asd:

- good at following instructions/rules
- lack of inhibition

Pupils with asd may have difficulties with:

- understanding how they appear to others
- picking up social clues/cues
- poor personal hygiene skills

Ruth lived on a farm and enjoyed all aspects of farming, regularly helping to 'muck out' before coming to school. Unfortunately she never washed after the morning's work and would often wear the same clothes.

- considering other peoples feelings
- knowing when/how to say things (may just point out the inappropriate hygiene habits of others)
- wearing appropriate clothes for the situation/occasion

Strategy:

- extend positive practice from home
- social skills group
- specific, step-by-step instructions
- modelling behaviour
- build "hygiene" into routine
- written checklist of what to do

Ruth was provided with a written checklist telling her what to do when she had finished mucking out and before coming to school; she followed the instructions to the letter and provided no more olfactory problems.

- specific teaching required
- practice demonstrations of "what to do"
- do not assume knowledge

Sex Education

Possible strengths of pupils with asd:

- will learn rules

Pupils with asd may have difficulties with:

- reading non verbal intentions
- being vulnerable to both exploitation and manipulation

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One boy was told by his 'friends' to 'moon' at a group of girls during the lunch break. This initially caused some difficulties but fortunately school was very aware of the implications of asd and had an understanding approach to the resolution of the issue.

- using appropriate approach to the opposite sex

Patrick decided that he would like a girlfriend like his brother. He knew his brother met girls in the 'pub' and so he went to the pub and positioned himself where he could see the largest number of girls. Unfortunately where he stood was immediately outside the 'Ladies' toilet. Real difficulties occurred as Patrick tried to talk to girls as they came out of the toilet.

- lacking inhibition/embarrassment
- embarrassment of staff in dealing with this area
- lack of awareness of safety issues
- understanding own feelings

Strategy:

- visits to chemists/doctors surgeries for health information
- teach what "private" means
- teach the acceptable parameters and behaviours explicitly.
- give clear, unambiguous rules for different situations 'No means no'
- provide rules that are "safe" for all concerned

'It is better to have bad rules than no rules.' Patricia Howlin

- deal with issues in a non-emotional, pragmatic way

To the amusement of his peers a boy told the teacher that she had red knickers on that day and he was just told quite simply that he and others shouldn't mention ladies underwear to them.

- involve the pupils in 'Social groups' where these issues can be raised.

3. Developing good relationships and respecting the differences between people

Reflect on the process of participating

The very nature of their differences means that generally pupils with asd do better in subjects where there is structure and individual level work rather than those where there co operation and collaboration is expected.

Possible strengths of pupils with asd:

- pupils may have unique ideas to bring to the group
- good at spotting detail
- knowledge of a specific interest/topic

Pupils with asd may have difficulties with:

- unpredictability of other people's responses, actions or reactions

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Andrew found the drama lessons exceedingly threatening until he was given the role of “teacher’s assistant”. Rather than having to interact with other pupils in improvised situations, he was allowed to set the tasks for improvisation. He was also put in charge of props and devised an inventory of the drama room equipment. His need for order and predictability was utilised in a constructive way and the fact that the teacher was able to find any given prop etc. at any given time was a real bonus.

- co-operation with others
- understanding that they are a member of a group
- following global instructions - “everyone find a space and run on the spot”

Strategy:

- create structure where possible
- give specific task/role
- gradually extend size of groups
- sensitive placement within groups
- include pupils’s name when issuing global instructions. For example “Everyone and Paul, find a space and run on the spot”.
- provide an “exit” strategy for the pupils (exit card, traffic lights)
- work with peers to support positive interactions

Communication with different people and communication with different people in different situations:

Possible strengths of pupils with asd:

- honesty
- uncluttered view of life
- logical approach

Pupils with asd may have difficulties with:

- literal understanding/interpretation
- empathy

Strategy:

- keep a situation and comments log so that appropriateness can be discussed at another time

Hugh saw nothing wrong in telling his teacher that he would rather not do the work set and wouldn’t if he felt so inclined. He saw nothing wrong in saying exactly what he felt.

- identify specific pupils (buddies) who may have developed some level of relationship with the pupils with asd. The friend can act to some degree as a facilitator who will model more appropriate behaviour. They can also ensure that the pupils follows instructions to the whole group in question. Working with a peer in this way can help develop some degree of social identity rather than becoming reliant on an adult supporter.

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- staff should recognise that in many instances if such pupils are failing to respond it is not because they are being uncooperative or disobedient, but rather that they do not understand what is expected of them which can lead to confusion.
- it is very helpful at the beginning and end of the day to have a short feedback time to go over positive experiences and also any situations that have occurred (Victory Log). These sessions allow reflection on what the teacher may have actually meant.

In one lesson a teacher responded to a pupil who threw the cricket ball as far away as possible by saying, "That was very clever".

- this confused the pupil as he felt that it was not very clever. It should always be kept in mind the pupil with asd will not readily understand sarcasm, irony, metaphor and simile.

4 Breadth of Opportunities

During the Key stages the pupils should be taught the 'Knowledge, skills and understanding' through a range of opportunities in different situations and settings.

religious education

autis.

Religious education

'God is like the wind. He lets you know he's there, but you can't see him.'
(*Religious education Non-statutory guidance on RE*)

Religious Education gives contexts in which all pupils can explore questions about life and living that are asked in all communities and cultures. The study of Religious Education offers them the opportunity to consider their own beliefs and values, as appropriate to their age and background, and to begin to understand the importance of personal commitment and responsibility. In their studies pupils will be encouraged to recognise and understand how religious beliefs and practices affect the behaviour of individuals and groups and to develop a positive attitude to those whose ideas and ways of living are different from their own. The aim is for pupils to respect the beliefs and practices of others and to develop a sensitive attitude to living in a multi-faith society.

In particular Religious Education offers the opportunities to:

- become aware of the spiritual dimension of life (morality; love; sense of wonder; hope)
- develop a sense of identity and value as a person (moral choice; emotional experiences)
- explore how people relate to each other and through that experience begin to form some concept of community
- consider their own place in the universe and their responsibility for the preservation and development of creation.
- face and discuss those questions which lie at the heart of all human experience (ultimate questions)
- learn that taking up a religious stance in life involves exploration, faith, commitment and decision
- consider the religious experience of people and through question and debate develop an awareness of religions.
- appreciate sacred texts
- learn about lives of people lived in relation to faith
- be aware of similarities and differences of great world faiths
- develop sensitivity to the beliefs of other religions and their feelings.
- communicate their own feelings and thoughts

Under the Education Act 1996 schools have a duty to provide religious education for all pupils and schools must teach according to the Locally Agreed Syllabus. This syllabus reflects the fact that the religious traditions here in Great Britain are in the main Christian but takes into account the other principal religions represented. There are two attainment targets in the model syllabuses (published by SCAA in 1994) on which the Locally Agreed Syllabus is based.

Attainment target 1: Learning about religions

- knowledge and understanding of religious beliefs and teachings;
- knowledge and understanding of religious practices and lifestyles;
- knowledge and understanding of expressing meaning.

Attainment target 2: Learning from religion

- skill of asking and responding to questions of identity and experience;
- skill of asking and responding to questions of meaning and purpose;
- skill of asking and responding to questions of values and commitments.

Our understanding of autism indicates quite clearly that Religious Education (RE) might present some difficulties for pupils with asd. Of the two attainment targets in the model syllabuses - 'Learning about religions' and 'Learning from religion' it is the latter which will cause more difficulty because of the many abstract concepts in the curriculum. Pupils might miss hidden meanings and symbolism if these are not fully and clearly explained. Additionally personal belief, opinion, reflection, analysis, evaluation and empathy might be areas of difficulty for pupils with autism.

However there are many parts of the curriculum that can be presented in a factual and visual way, often seen as the strengths of those with autism, which will be of great value and interest to the pupil. Examples are stories from all the main religions, definitions of terminology and descriptions of artifacts.

Listed are the common strengths and difficulties that pupils with autism often struggle with and then the strategies that have been found to be useful. These lists of strategies are not exhaustive, nor are they intended to answer all the needs you might encounter on this subject. We would welcome further suggestions and hope that you will find you can use this as a working document and add to it over time. However you might find that keeping these key principles in mind will help you to address other issues.

Possible strengths of pupils with asd:

- good memory for facts
- often interested in rules/structures/systems/laws
- logical thinker
- loyal and dependable
- express opinions
- responds well to structure where there are clear rules and expectations
- good concentration when interest engaged
- attention to detail
- perseverance

Pupils with asd may have difficulties with:

- decision making
- problem solving
- day to day planning so might not have correct equipment
- social understanding beyond factual knowledge
- difficulty realising what is important/relevant so might concentrate on detail
- understanding others' perspectives/accepting the opinions of others
- conflict resolution

Religious education

- topics outside experiences and perspective
- abstract concepts
- recognising differences between opinion and fact
- analysing information
- reflection
- following the agenda of others
- empathy
- with accepting others' opinions if different from own
- creativity in application
- understanding beyond the literal
- unrehearsed oral presentations
- knowing what, how much to include in oral/written presentations
- participation in discussion, following to and fro of conversation
- transferring learning and generalising between situations
- working in a group/with others
- applying social skills in addition to learning the curriculum

Strategy:

- spirituality is a very abstract idea and many pupils, not just those with asd may have difficulty coming to terms with their own and other people's spiritual awareness. Start from the real experiences of the pupil and build on these using individual and small group settings.
- many pupils with asd struggle with identity and self esteem. Positive feedback and encouragement can help develop their self-esteem and sense of value.
- many pupils with asd see the world from their own point of view. They see issues in "black" or "white" and as a result can be very moralistic whilst failing to see that there are times when other people can be hurt by their words or actions. It may help to do specific work on emotion (in individual and small group settings).
- there may be an inability to see any argument from another person's point of view because of their lack of empathy. They often don't realise the consequence of their actions and they can be impulsive. Specific programmes dealing with relationships, using videos and other visual material, and role-play may be helpful.
- the idea of the community can be an area that the pupil will cope well with, particularly if it presented in a factual and visual manner, introduced in a way which is relevant to the pupil and of which he has experience (family, school, youth group...)
- becoming responsible for the preservation of creation might be addressed in practical ways (care of the environment, care of pets...).
- provide materials, language needed... before introducing a new topic so that the pupil feels confident about content when in social settings. Pupils with asd very often have to work harder than their peers as they have to learn the academic curriculum at the same time as learning/negotiating the social curriculum which their peers learn intuitively.

Religious education

- the pupil may not have the language essential for discussion work. They may also have difficulty relating to large groups and although they may want to take part, lack the ability to do so as they often misunderstand social rules. Small group situations may prove easier for the pupil with asd to cope with, and may enable their confidence to develop.
- abstract concepts will be the most difficult for the pupil with autism to grasp. Use visual approaches (O.H.P, photographs, books, posters, artifacts...), visits, attendance at ceremonies/festivals, speakers, T.V, video, tape recordings.
- many pupils with asd lack curiosity and the need to search for knowledge unless it is related to their specific interest. Try to link interests to the curriculum.
- they also struggle with the idea of debate and sharing their ideas, and giving reasons for their thoughts and feelings. Use small group situations in order to help the pupil with autism cope with the difficult area of debate. Try to prepare beforehand and initially structure the sessions, providing a clear framework of expectation. It could also be useful to start from the pupil's own personal experiences.
- the type of language used in many religious texts is based on language which a pupil with asd will find difficult to understand because of the inferences and symbolism included in it. Provide explanations of the language used in Religious Education (story, simile, allegory, myth, metaphor, symbol, art, music, drama, dance...) and introduce activities and games to consolidate understanding
- the pupil with asd will be able to understand that the various texts teach the way of life for their particular followers, but may find it difficult to appreciate that this can have subtle differences in each religion. The different texts include a wide variety of writings (the Bible includes myths, prophecy, history, poetry, gospels, songs, apocalyptic writings, legends, letters and law. In Hinduism the meanings of texts are many layered). Pupils with autism may latch onto one meaning only and will need careful explanation of other meanings.
- the pupil with asd will be able to cope with similarities and differences in different religions if these are presented in a concrete way. However it may be on a superficial level only and abstract ideas will need defining more closely. They could struggle to understand why different religious communities have different names for their God (God, Allah, Jehovah, etc.) Presented in a factual way the differences could be accepted.
- communicating thoughts and feelings is a difficult area although pupils with asd will be able to say how they feel in some situations particularly those which they have experienced, so a useful strategy may be to start from there.
- visiting religious buildings and places of sacred importance can be a valuable learning opportunity but remember to prepare well. Be aware that new experiences can prove stressful and confusing to a person who has autism. They may dislike or react strongly to sights, sounds and smells with which they are unfamiliar.

Good preparation can include in-class work done by support staff and class teacher in small groups and possibly on an individual basis if this is necessary. The introduction of artefacts in class so that they are more familiar to the pupil, and the use of videos, photographs, and computer programmes can also be beneficial. It can also be useful to introduce plans and maps of the layout of the building and the proposed route.

Religious education

The pupil with autism may need to have explicit rules as to how to behave in the different religious buildings explained clearly but once they understand the respect that they have to give this should not be much of a problem.

- be specific about learning outcome and objective of the session.
- focus on key points, use highlighters/underlining... for emphasis.
- use clear hand outs/scaffolds/frameworks to support and develop understanding.
- pupils with autism are generally visual learners, ensure that you acknowledge this in lesson delivery.
- introduce activities (games and quizzes) to strengthen listening, turn taking...
- be aware of anxiety/stress and ensure that the pupil has coping strategies (within or outside the classroom).

After each skill area we have listed the common strengths and difficulties that our pupils often struggle with and then collated a list of strategies that have been found to be useful. These lists of strategies are not exhaustive, nor did we intend them to answer all the needs you might encounter in this subject.

We would welcome further suggestions and hope you will find you can use this as a working document and add to it over time. However you may find that keeping these key principles in mind will help you to address other issues.

NB. This is a complex area of development which may require colleagues to seek advice from the LEA Advisory staff.

bibliography

autis.

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seful websites

asd Working Party (UK) Guidance, published 2002
<http://www.dfes.gov.uk/sen/documents/ACFEFA.htm#PRINCIPLES>

web page about marriage where one partner has AS
<http://www.asperger-marriage.info/>

site for jobseekers working in asd field (UK)
<http://www.asdjobs.org/jobseek.asp>

an outstanding site built by parents of a child with ASD (AE subscriber)
<http://www.autisticangel.net>

<http://www.hunnybee.com.au/asd/asdsupport1.html>
"To you, asd might be a tragedy. For many of us on the spectrum, it is just the way we are."
Melissa Bee's gorgeous web site packed full of helpful links!

a hilarious spoof of the medical model of asd, authored by a person with asd - find out if you are one of the 9625 in every 10 000 who are neurologically typical!
<http://isnt.autistics.org/>

online Asperger Syndrome information and support
<http://www.udel.edu/bkirby/asperger/>

a highly influential group who challenge the dehumanising sobriety and detachment pervading many professional relationships
<http://www.patchadams.org/>

a diverse collection of high quality articles on ASD online
<http://trainland.tripod.com/asd99.htm>

a ground breaking article on emerging Autistic culture by Martijn Dekker
<http://trainland.tripod.com/martijn.htm>

information about carol gray's method for teaching social skills
http://www.thegraycenter.org/Social_Stories.htm

tony attwood's site, with lots of useful links
<http://www.tonyattwood.com/>

iep discussion group
http://groups.yahoo.com/group/IEP_guide

get adobe acrobat for reading pdf files about asd
<http://www.adobe.com/products/acrobat/readstep.html>

asd society of america information page
<http://www.asd-society.org/packages/packages.html>

asd europe
<http://www.asdeurope.arc.be/english/frame.htm>

seful websites

world asd organisation
<http://worldasd.org/>

sensory integration books and resources
<http://www.sensoryint.com/recommended.html>

picture exchange communication system (PECS)
http://www.asdconnect.org/asd99/html/Preview.cfm?conference_id=6&title_id=135&type=paper

intensive social interaction with a trade mark
<http://www.son-rise.org/>

division TEACCH
<http://www.teacch.com/>

USA info site with many links
<http://www.asd.org/contents.html>

a UK ABA information page
<http://www.peach.org.uk/links2.htm>

the other uk asd organisation, which provides TEACCH training
<http://www.asduk.com/main-index.htm>

national autistic society for the uk
<http://www.nas.org.uk/>

the ultimate ASD information centre, with links database
<http://www.asdconnect.org/>

list of aspie homepages
http://www.kandi.org/aspergers/Personal_HomePages/index2.html

list of links, including homepages of people with ASD
<http://www.isn.net/~jypsy/experts.htm>

Dr. Gutstein's Relationship Development Intervention (RDI) program
<http://www.connectionscenter.com/>

an article linking air pollution to various disorders, including ASD
<http://www.vaccinationnews.com/DailyNews/June2002/IndustrialPollution15.htm>

a UK-based site for working parents
<http://www.parentsatwork.org.uk/>

asd-friendly ASD resource
<http://3service.freesevers.com/asd.html>

future changes

In providing these opportunities adults should be aware of the common strengths and difficulties that pupils with asd can display and of the strategies we have found useful.

The strategies are not exhaustive, nor is it envisaged that they will answer all your questions. This is a working document and as such we would welcome your comments to inform future changes.

The document may be accessed as a whole or as subject areas.



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Response form

pupils with asd key stages 3 & 4
accessing the curriculum

Subject Area and Key Skill

Issue

Strategies

Name

Address

E-mail

Please return to Mick Connelly
Assistant Manager
Central Service for Support & Advice/PSC Co-ordinator
Blackpool LEA, Progress House, Clifton Road, Blackpool FY8 4US
Email: mick.connelly@blackpool.gov.uk