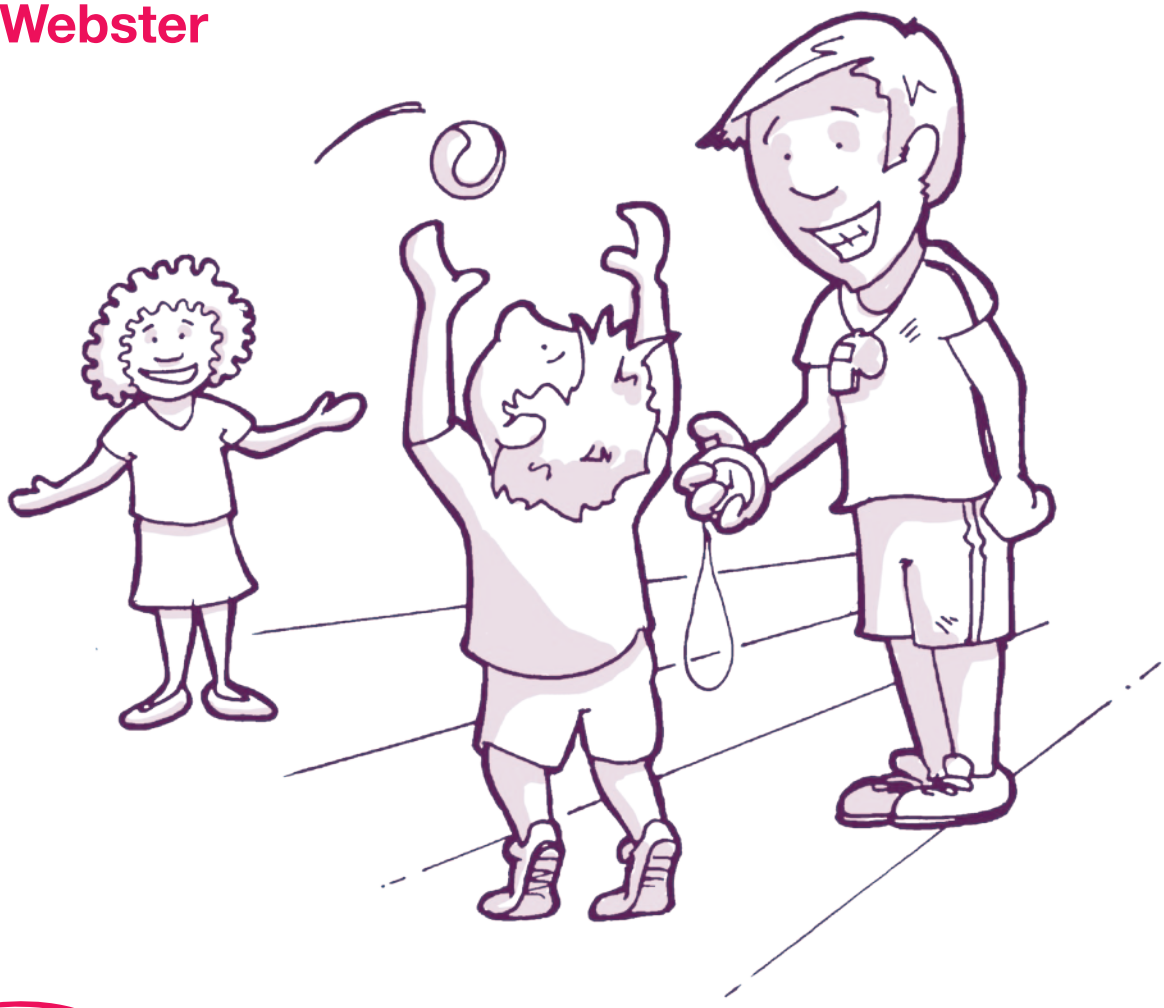
The National Autistic Society

Autism, sport & physical activity

Practical strategies to implement in your delivery of sport and physical activity when working with autistic people.

By Amy Webster



Until everyone understands

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Foreword by our Sports Ambassador Tom Morgan

Rugby has been in my life since I was three years old. I struggled a lot at school and found it difficult to pay attention in lessons. But when it came to sport, I was like a different person. I'd get on the pitch, and I'd switch on. I'd forget about everything besides what was happening on the field. I really enjoyed it and it made school easier.

You do a lot of thinking in rugby. You're always on the go, and you get out a lot of aggression as well! In other sports, you might have one job, but in rugby you get to do a little bit of everything. I've tried many different positions in my career, from playing in the centres and the second row to being a flanker. I've played both rugby union and rugby league.

The game has helped me to build social skills, make friends, and it has taught me to come together with my teammates like a band of brothers. I've got a lot of confidence from that. Training and playing matches gave me something to look forward to during the times in my life when I was struggling. Even today, when I'm feeling anxious, going to the gym or playing rugby helps me get out my hyperactivity.

People think autistic people aren't good in a group, or that they only like individual sports. There's nothing wrong with individual sports, but for me, playing rugby – a team game – has given me so much confidence. It has changed my life.

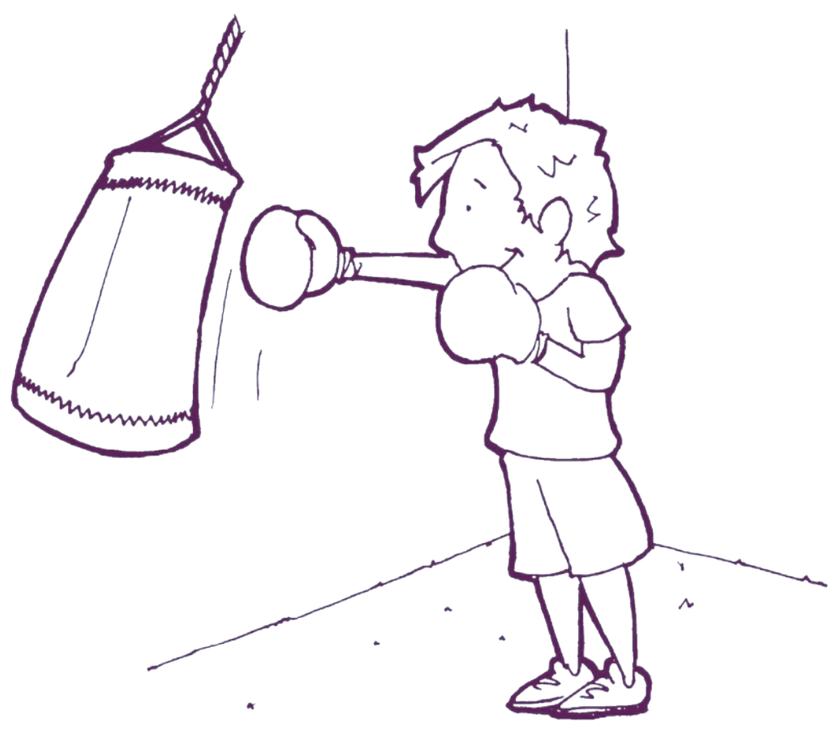
The best coaches I've had didn't overload me with information, but they didn't sugar coat anything either. I knew where I stood, and I wasn't overloaded with pressure. They kept things very clear and basic, which is important for an autistic person. What this book does is help you to become a coach like that. It teaches you about how the autism spectrum works and how you can do different things for different kinds of autistic people. Some people handle things differently, but if you're open from the start things can work really well.

Tom Morgan

Introduction

As well as helping to keep people fit and well, taking part in sport and physical activity can increase self-esteem, develop social skills and improve mental health and general wellbeing. Many people on the autism spectrum miss out on these benefits because sport and physical activity leaders aren't always aware of the impact of the condition's 'hidden' differences, such as heightened fear and anxiety in social situations, sensory challenges, and differences with understanding body language and metaphor. Certain behaviours are sometimes perceived as being a problem, when in fact there may be many other reasons that explain the behaviours, such as a reaction to coping with a sensory sensitivity or misunderstanding certain communications.

This resource will act as a guide and provide practical strategies for delivering sport and physical activity to people on the autism spectrum. It is important to remember that every autistic person is an individual and therefore this resource should act as a guide only; you will find, as with any of your participants, that there is not a 'one method suits all' approach when delivering sport and physical activity.



What is autism?

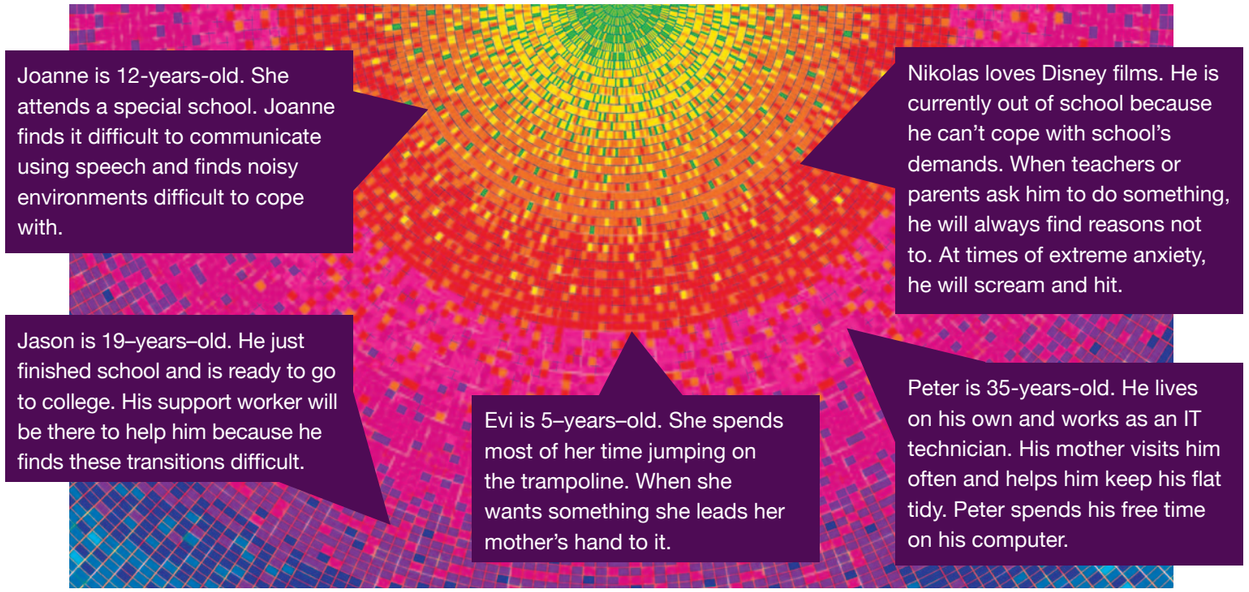
Autism is a lifelong developmental disability that affects how a person communicates with, and relates to other people. It also affects how they make sense of the world around them. It is a spectrum condition, which means that, while all people on the autism spectrum share certain differences, their condition will affect them in different ways. Some autistic people may also have accompanying learning disabilities, mental health issues or other conditions, meaning different people need different levels of support.

Asperger syndrome is a form of autism. People with this diagnosis are often of average or above average intelligence. They have fewer problems with speech but may still have differences with understanding and processing language. People with Asperger syndrome do not usually have the accompanying learning disabilities associated with autism, but they may have specific learning difficulties such as dyslexia and dyspraxia.

Autism is much more common than most people think. There are over 700,000 people in the UK on the autism spectrum which equates to more than 1 in 100 people.

People from all nationalities and cultural, religious and social backgrounds can be autistic. It is a lifelong condition which means that autistic children will grow up to become autistic adults.

The autism spectrum affects everybody differently. Here are five examples of people on the autism spectrum:



Facts about autism

- There are over 700,000 people in the UK with an autism spectrum condition.
- Around five males are diagnosed with autism for every female. But autism spectrum conditions are under-diagnosed in females, and therefore the male to female ratio of those who are on the autism spectrum may be closer than 5:1.
- Researchers are still investigating the cause of autism. Research suggests a combination of factors - genetic and environmental - may account for changes in brain development.
- Autism is a 'hidden condition' meaning you can't tell if someone autistic from their appearance.

Common areas of difference

It is important to be aware that the characteristics of autism vary from one person to another; but in general all people on the autism spectrum share differences in the following main areas:

- social communication and social interaction
- restricted and repetitive patterns of behaviours, activities or interests
- sensory processing.

Each section below looks at each area of difference in more detail.

Social communication and social interaction

Autistic people may have differences with both verbal and non-verbal communication. Many have a very literal understanding of language, and think people always mean exactly what they say.

Non-verbal communication

Non-verbal communication includes eye contact, tone of voice, body language, gestures and facial expressions. Some studies have shown that around 80% of communication is non-verbal. Many autistic people describe having great difficulty with identifying and interpreting non-verbal communication. This can make it very hard to understand the message someone is trying to communicate, especially if they use non-verbal hints and do not state things clearly and directly.

Verbal communication

Some people on the autism spectrum may not speak, or have fairly limited speech. They may understand what other people say to them, but prefer to use alternative means of communication themselves, such as sign language or visual symbols.

Others will have good language skills, but they may still find it hard to understand the give-and-take nature of conversations, perhaps repeating what the other person has just said (this is known as echolalia) or talking at length about their own interests.

"Instructions must be delivered step by step. They music be clear, concise and avoid any ambiguity with set rules and structures."

Andrew Edwards, recreational athlete

Because of these differences with communication and interaction, some autistic people may struggle to understand the following:

Small talk and banter

In sport and physical activity sessions, small talk is often used to develop relationships with teammates or as a starting point with new participants. Some autistic people struggle to know how to join in with small talk with some describing it as a difficult concept to understand, because they can't see a reason to discuss things that they aren't particularly interested in, such as the weather or the journey to the sessions. Others say that they would like to make small talk, but can't find the right things to say and worry they will be judged or misinterpreted. It can be tempting to skip small talk and instead talk about a topic of interest or ask for information straight away. However, people can interpret a lack of small talk as being rude or disinterested. Being interpreted in this way may limit the development of professional or social relationships.

Banter often heavily relies on sarcasm. Sarcasm can be difficult to interpret as it can be hard to identify whether someone is being serious or not. A tendency to interpret language literally, along with difficulty in interpreting facial expressions and body language, can make it particularly difficult for some autistic people to identify when someone is being sarcastic.

"Many times I would take the jokey behaviours of the other lads in my team very literally and sometimes mimic it."

Andrew Edwards, recreational athlete

Tone of voice

The way that something is said can often add meaning to what you are saying; this is referred to as your tone of voice. Some autistic people can have difficulty with monitoring or changing their tone of voice, which may lead to misunderstandings in social situations. For example, someone who speaks with a monotone voice may be perceived as being disinterested or bored, even if this is not how they are actually feeling.

"I once worked with a boy who was always getting into trouble for appearing to be too angry. We later discovered that this is how he expressed his excitement."

Teaching assistant

Formal language

Daily conversations can be quite informal, using slang terms or incomplete sentences instead of formal language. Some people on the autism spectrum do not adapt their use of language in this way. This may cause them to stand out in social situations.

Literal interpretation of language

The language used in daily conversation often contains a number of metaphors, similes and ambiguous phrases. Likewise, language used in sports sessions such as 'pull your socks up' or 'run like the wind' may confuse. Some autistic people can interpret language literally and find it hard to infer meaning from ambiguous or unclear phrases. This can make it hard to follow conversations, or understand instructions, if phrases of this type are used.

"My coach was giving me some instructions during a break in the game; he told me to 'use my head' when going into the tackle. I took this very literally and ended up head butting the opposing player!"

Tom Morgan – National Autistic Society Sports Ambassador

Autistic people often have difficulty recognising or understanding other people's emotions and feelings, and expressing their own, which can make it more difficult for them to fit in socially. They may struggle with the following:

Reciprocal conversation

The rules of conversation are complex and often unspoken. Autistic people can find it difficult to work out what these rules are, and may need to put a lot of effort and focus into following them. Some people describe having to think hard about every moment of their conversation, trying to figure out:

- how to start a conversation
- when it is appropriate to join in the conversation
- when to stop talking
- whether their comment is appropriate or right
- whether they understand the conversation fully.

Conversation can become a complicated and stressful process, and some people may find it easier to avoid conversations altogether.

"I get mentally tired very easily and quickly because social interactions are such hard work."

Alis Rowe, Olympic-style weightlifter (non-competitive)

Eye contact

Eye contact is a social convention that holds a lot of meaning to many people. This is because looking towards another person's eyes makes them feel they are being listened to and understood. Some autistic people may not follow the conventional rules of eye contact – they might make too little eye contact or it might be too intense.

For some people this can be a sensory issue, as they may find the intensity of eye contact makes them feel uncomfortable. For others, it might be too difficult to consciously follow the rules of eye contact while also trying to engage in conversation.

"When I meet new people, I can avoid eye contact especially when I am talking a lot and can look through that person."

Andrew Edwards, recreational athlete

Physical boundaries

The rules of physical boundaries between people in certain physical activity situations change depending on factors such as the closeness of your relationship, the size of the area and the type of activity. It can be difficult for an autistic person to navigate these complex rules and work out how close or far away to stand from other people.

Empathy

Empathy is the ability to understand and respond to another person's feelings. The first step in showing empathy is often to work out how someone is feeling from the non-verbal cues that they give. Difficulty with identifying non-verbal cues can make it hard for some autistic people to work out how someone is feeling. Some people describe how they need to see a very clear indication of a person's feelings to pick up on them and act appropriately. They might, for example, need to be told in words that a person is upset, or see a physical sign such as tears. If there is no clear indication of how someone is feeling, an autistic person may misinterpret their actions or may appear to have a lack of empathy.

Differences with social interaction can mean that autistic people may find it hard to form friendships; some may want to interact with other people and make friends, but may be unsure how to go about this. Others may form friendships easily but with the wrong people and be taken advantage of, being eager to please, and not knowing how to end relationships.

Restricted and repetitive patterns of behaviours, activities or interests

Patterns allow us to understand and predict other people's behaviour, make sense of abstract ideas, and to imagine situations outside our immediate daily routine. Differences with patterns mean that autistic people sometimes struggle with:

Change

Many people on the autism spectrum describe experiencing high levels of stress and anxiety around change. This can be environmental changes, such as changes to the activity space; relationship changes, such as a new participant or new coach joining a team; or situational changes, such as facing a new team in tournaments or playing to new rules because the referee is different. Some people describe having a strong need for routine and structure in all aspects of their life, because they find it so difficult to cope with change.

"I have always struggled with the routine of not training whilst ill. I have been known to moan relentlessly about my routine being interrupted. I also struggled with a different instructor and have gone home early due to this."

Andrew Edwards, recreational athlete

Change can be particularly difficult to cope with if it is unexpected, unexplained or occurs at the last minute. Being given advance notice can help people to prepare for and cope with change.

"Routine is incredibly important to me and a disruption to my routine can make me feel very stressed and upset - so much so that it can ruin the entire day."

Andrew Edwards, recreational athlete

Hypothetical thinking

Making predictions about future outcomes or consequences can often require hypothetical thinking; imagining situations which have not been directly experienced. Some autistic people can find it very difficult to think hypothetically, particularly about social situations. Hypothetical thinking can be important when participating in physical activity.

Knowing what the next progression in the activity is can help you to succeed in the session. Many coaches often require participants to think hypothetically. For example, an activity leader might ask 'What can you do differently next time to get the ball to the target zone?'

A coach at a disability football club

This inability to predict the consequences of certain behaviours or actions may also have an impact on a person's sense of danger. You may notice some participants have a limited sense of danger which may put them at risk of injury.

Single focus

There are often strong demands on people to do more than one thing at a time. For example, during a training session you may be required to listen to instructions, watch the demonstration, and think of questions or suggestions to improve the activity.

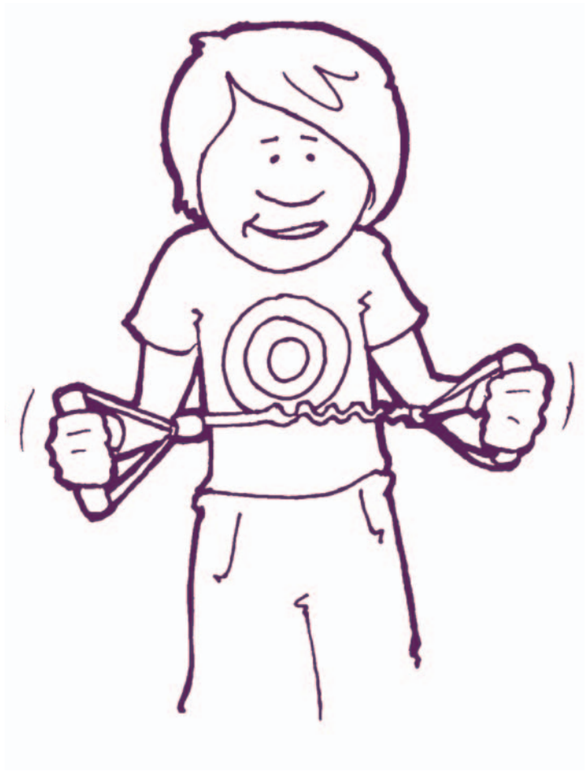
Many autistic people describe having 'single focus' attention, which can make it very hard to focus on multiple things at once. This affects people in different ways. For example, some people find that they are very easily distracted from their activity by noises from the surrounding environment and find it difficult to regain their focus after being interrupted.

Some people find it very hard to multi-task – switching from one task to another when the first is not complete. Single focus can also lead to difficulty with following instructions which involve a number of steps. For example, if given three instructions in one go, an autistic participant may only focus on the first task and may not complete the others.

Differences with social imagination should not be confused with a lack of imagination. It is also important to consider that some people may be highly imaginative to the point of overanalysing or catastrophizing an event.

"I am not going to take part in this game because I am going to lose anyway, if I lose everyone will be laughing at me."

Autistic player at disability football club



Further characteristics

In addition to the groups described above - we will later visit sensory processing -, there are further characteristics which are often associated with autism.

Anxiety and other mental health problems

Even though mental illness can be more common for autistic people than in the general population, the mental health of people on the spectrum is often overlooked. It is important to remember that mental health problems are not part of autism, and people should receive appropriate support and treatment if they experience these problems. There are some very effective treatments for mental health problems such as anxiety and depression. It is very important that the person providing treatment is knowledgeable about the needs of people on the autism spectrum.

Related conditions

Autism is often (but not always) diagnosed alongside other conditions including but not limited to: ADHD, hearing impairment, dyslexia, dyspraxia, hypotonia, epilepsy, and hyperlexia. It is important to support people with more than one condition in a way that meets all their needs, while understanding that the needs arising from autism are distinct. For further information, please visit **The National Autistic Society website**.

"I had delayed development of my motor skills, which meant that simple tasks such as buttoning up my shirt or tying my shoelaces were difficult and took me a long time. If you think that those tasks were hard, you can only imagine the near impossibility of having to coordinate your body in order to play tennis or netball."

Alis Rowe, Olympic-style weightlifter (non-competitive)

Intense interests

Some autistic people may have an intense interest. Their special interest could be a general topic such as sport and video games, or something more specific such as Minecraft or the history of a football club. People often have an excellent knowledge of their specialist topic, which can be useful when looking for appropriate activities. However, not all intense interests are appropriate for discussion during physical activity sessions.

It can however be very beneficial for the activity leader to use a participant's special interest as a motivator for participation.

"With one participant, I used to stick a photo of Thomas the Tank Engine at the end of the pool to encourage my participant to swim towards it. On the successful completion of five widths, they were able to play with their Thomas toy for five minutes."

A swimming coach

"Fitness and weight training quickly became my special interest and before long I had developed a gym at home to meet my complex exercise requirements."

Alis Rowe, Olympic-style weightlifter (non-competitive)

Executive function

'Executive function' refers to the mental processes involved in skills such as planning, organising, sustained attention and multi-tasking. Some people on the autism spectrum have difficulty with these regulatory processes and may need support and guidance to develop skills in these areas.

Strengths associated with autism

There are a lot of strengths associated with autism which can be very useful in certain sports or activities. Not everyone will have all of the strengths listed in this section, and this is not an exhaustive lists of the strengths associated with autism.

Problem-solving skills and attention to detail

Autistic people often have strong attention to detail and tend to prefer logical and structured approaches to the task in hand. This combination of skills can mean that they are very good at identifying areas for improvement. They may enjoy problem-solving and can bring new and innovative ideas to the activity.

High levels of concentration

Autistic people often find focusing on detailed areas of activities rewarding. In training sessions and during physical activity sessions they may work persistently and without being distracted, ensuring that their input to the activity is consistent and accurate.

Reliability and loyalty

People on the autism spectrum can be very conscientious and committed to their chosen activity, and often display good punctuality, honesty and integrity. If someone has a strong preference for routine, once settled into their activity they will often be an extremely committed participant.

Technical ability and specialist interests

Some autistic people may develop highly specialist interests and skills which can be very valuable in the physical activity environment; they may become very knowledgeable and skilful in their chosen activity.

Sensory differences

People on the autism spectrum may experience some form of sensory sensitivity. This can occur in one or more of the seven sensory systems:

- tactile (touch)
- visual (sight)
- auditory (sound)
- gustatory (taste)
- olfactory (smell)
- proprioceptive (body awareness)
- vestibular (balance).

Tactile

Touch is important for social development. It helps us to assess the environment we are in and to react accordingly. It also allows us to feel pain.

Visual

Situated in the retina of the eye and activated by light, our sight helps us to define objects, people, colours, contrast and spatial boundaries.

Auditory

This is the most commonly recognised form of sensory difference. Differences with auditory processing can affect someone's ability to communicate and it can also have an effect on their balance.

Gustatory

Chemical receptors in the tongue tell us about different tastes.

Olfactory

Chemical receptors in the nose tell us about smells in our immediate environment. Smell is the first sense that we rely on.

Proprioceptive

Situated in the muscles and joints, our body awareness system tells us where our bodies are in space and how different body parts are moving.

Vestibular

Situated in the inner ear, our vestibular system helps us maintain our balance and posture as well as helping us to understand how fast our bodies are moving.

Balance is an important aspect of sport and physical activity. There are two types of balance, static and dynamic. A static balance is where the participant remains still whilst performing a balance such as standing on one leg. A dynamic balance requires the participant to keep their centre of mass in an appropriate place whilst performing a movement. Dynamic balances can be more demanding than static balances and require more focus and greater energy.

Balance can be developed through exercise over time and activity leaders can help participants to increase their awareness of their centre of balance through the use of balance activities in their sessions.

Sensory processing differences

A person's senses are either intensified (hypersensitive) or under-sensitive (hypo-sensitive). Sensory sensitivity can have a significant impact on a person's actions and ability to concentrate. For example:

- if a person is over-sensitive to sound, they may find it very difficult to filter out noises from the surrounding environment. This can make it hard to focus on what the coach is saying if they are in an activity space with a lot of background noise
- if a person is under-sensitive to light, they may require very bright lighting to be able to read task cards or concentrate on the activity. Working in a space with low levels of light may lead to ongoing problems with concentration, which may be misinterpreted as being lazy or unmotivated.

"I really struggle with the loud music at T20 cricket matches despite attending over three figures of gigs in my life. The loud music affects my enjoyment of the match as I am there to be with mates and watch leather on willow."

Andrew Edwards, recreational athlete

"My senses are 'off', which means that I find it hard to filter out background noise when somebody is talking to me, such as the P.E. teacher, and sunlight and even normal lighting can be painful for my eyes."

Alis Rowe, Olympic-style weightlifter (non-competitive)

Additional Resources

In this section you will find examples of current practices and useful templates which may be relevant to your activity. These are intended as a guide only and it is recommended that you edit each resource to make it relevant to your group or participant.

Activity registration and consent form and participant profile

Welcome to our activity. In order to make this the most positive experience possible for all participants, we are asking you to complete the following form. Please ensure that you ask a parent or carer for help if you need it. We will always attempt to provide a positive and successful environment by delivering activities and coaching that challenges all participants. We ask your help to achieve continued success and satisfaction for our sessions. Thank you in advance for this information, which will always remain confidential.

Emergency contact:

Name of participant:

Address:

Date of Birth:

Gender: Male ☐ Female ☐ Other ☐

Name of emergency contact:

Relationship to participant:

Day time telephone number for emergency contact:

Mobile number for emergency contact:

Email address for emergency contact:

In the event that this emergency contact cannot be reached:

Name of alternative contact who can be contacted in an emergency:

Relationship to participant:

Day time telephone number for alternative contact:

Mobile number for alternative contact:

Please confirm if there any activities that the participant cannot participate in?

Please give details:

Medical information:

Any specific medical conditions requiring medical treatment?

No: ☐
Yes (please give details):

Details of medication required (pain/flu/inhaler/times):

Any specific medical condition or disability? No: ☐
Yes (please give details):

Any allergies? No: ☐
Yes (please give details):

Details of any dietary requirements (vegan/vegetarian):

Consent information: please tick the boxes below

☐ I give my consent that if an emergency medical situation arises, the organisation/club may act as loco parentis. If the need arises for administration of first aid and/or other medical treatment which in the opinion of a qualified medical practitioner may be necessary, I understand that in such circumstances all reasonable steps are made.

I confirm that I have read, or been made aware of, the organisation's policies concerning:

☐ Codes for conduct for parents, coaches, participants
☐ Transport policy
☐ Changing room policy
☐ Photography, videoing, texting and use of social media policies.

☐ I can confirm that my child/adult is aware of the the club/organisation code of conduct and anti-bullying policy.

☐ I can confirm that I am aware that the information provided will be used by the club/organisation only and that it will not be distributed externally.

Signature of participant :

Print name (participant):

Date:

Signature of parent/carer:

Print name parent/carer:

Date:

Preferred methods of communication

Please provide us with details of any methods of communication that the participant prefers. We may ask if we can contact you for further details. Please let us know if you would prefer not to be contacted.

Other information not covered in the form

Please use this space to provide us with any information that will help us to meet the needs of the participant(s). Feel free to tell us about likes/dislikes, favourite activities, favourite athletes, etc.

Accessing sport and physical activity

Benefits of sport & physical activity

It is widely recognised that engaging in sport or physical activity not only helps to keeps us fit and well, it can also increase self-esteem, develop social skills and improve mental health and general wellbeing. For anybody, the reasons for participation can vary greatly, as can the benefits. This also applies to people on the autism spectrum.

All people, whatever their needs, benefit from sport and physical activity in some way. As well as the usual benefits of: increased confidence, improved health, to learn new skills, and to spend time with friends, here are some other examples of ways that people on the autism spectrum felt that participating in sport and physical activity benefitted them:

- *"It taught me I can be successful, I am three times' world champion in my sport. Helps me to release my frustration. I fit in with my team."*
- *"Slight improvement in co-ordination."*
- *"Reduces my anxiety."*
- *"I have learnt to keep trying things when they get tricky."*
- *"Better able to predict meltdowns and handle sensory overload."*
- *"Helps me to vent my frustration of having to cope with situations I am not comfortable in. I save up all my stress and release it through sport."*
- *"I can be part of a group without being forced to be part of a team."*

"My mental and physical wellbeing have been tremendously improved going to my personal trainer. It helps my autism, thought processes, stress levels and helped manage my depression. The discipline and advice from my trainer helps me incorporate it into everyday life."

Andrew Edwards, recreational athlete

Barriers/perceived challenges

General findings suggest that people choose to participate in sport or physical activity for a number of reasons such as: enjoyment, social interaction, health benefits, and to learn a new skill. Why someone chooses to participate in a particular sport or activity will depend on their individual preferences and everyone will have their own reasons for participating.

Reasons for participation will differ for each person.

"I struggled with other members of the class as I wasn't there to socialise as I already had my mates. I was there to get fitter and not to joke as that is what you do outside of training."

Andrew Edwards, recreational athlete

It can sometimes be beneficial to ask why autistic people choose not to participate. This way coaches, teachers and activity leaders may be able to identify factors in their sessions that may need to be adapted in order to remove any barriers or perceived challenges that may be preventing autistic people from participating.

In the table below there are some examples of reasons that people on the autism spectrum have given for choosing not to participate in sport or physical activity. Can you think of any potential adaptations that could be made to encourage them to participate?

Reasons to not participate	*Potential adaptation to encourage participation*
"I have been put off from bad experiences during high school."	
"Lack of confidence, lack of opportunity, lack of information."	
"Poor physical coordination, pressure to compete."	
"I couldn't follow or understand the instructions."	
"I am nervous around strangers."	
"I am uncomfortable changing into sports clothing."	
"The rules are not always easy for me to understand."	

As well as the reasons listed above, we will also explore some of the perceived challenges to participation in sport and physical activity for people on the autism spectrum, in order to try and dispel some of the myths.

Myth	*Reality*
Autistic people do not play team games.	*For people on the autism spectrum team games can be daunting. However this does not stop people from playing team games in both mainstream and adapted sporting environments.*
All people on the spectrum avoid contact sports.	*Oversensitivity to certain stimuli, such as contact with others, can make contact sports seem off putting to people on the autism spectrum. However, many people still choose to participate in contact sports such as football, rugby and martial arts. Coaches need to be mindful of sensory issues and adapt sessions when required.*
People on the autism spectrum do not listen in sessions.	*People on the autism spectrum communicate in different ways and many find eye contact difficult. This does not mean that they are not listening or paying attention. It can take longer to process information and so a response or reaction may not come immediately and in some cases there may be no reaction.*
Autistic people wish to avoid social contact.	*People on the autism spectrum are often keen to make friends but, due to some of the characteristics associated with their disability, can find this difficult.*
People on the autism spectrum cannot learn new skills.	*Autistic people can have strong academic abilities and strong visual skills, meaning that with the right support, autistic people of all abilities can be helped to reach their full potential.*

Practical Strategies

As we have seen from participants responses in the previous section; there are a number of reasons that people on the autism spectrum may choose not to participate in sport or physical activity.

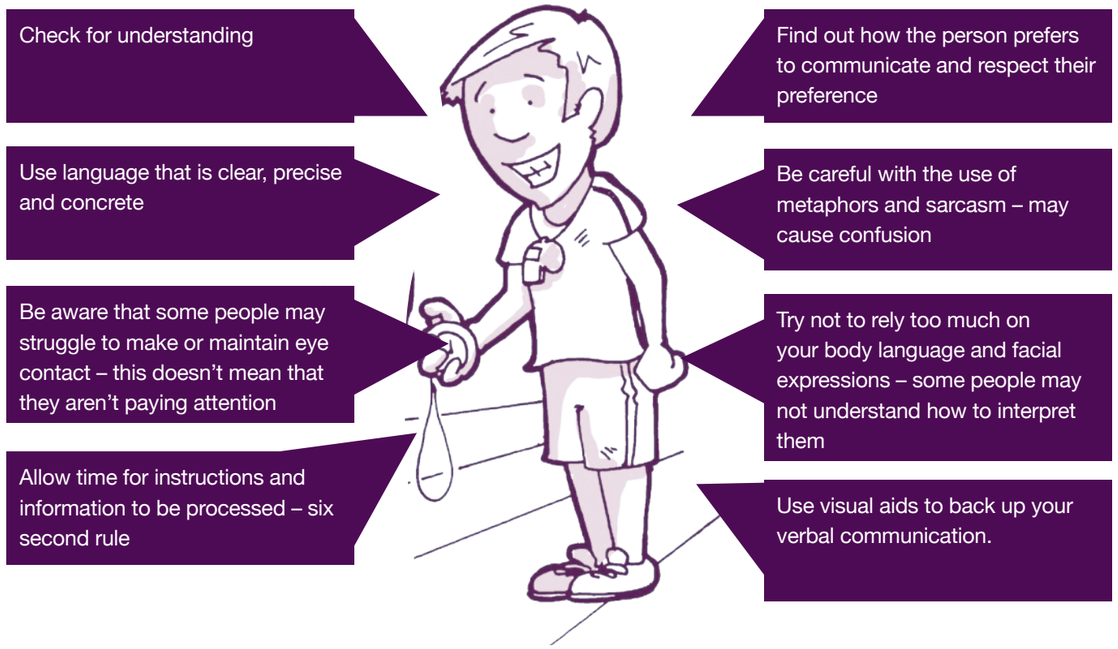
In this section we will introduce a range of practical strategies that can be used to make activity sessions accessible to people on the autism spectrum. By making activities accessible, activity leaders may find that those who were previously less inclined to participate in the sessions may find the opportunities more appealing.

We will focus on each key area of difference looking at practical considerations as well as different ways of motivating participants.

Social communication

Due to some people on the autism spectrum having difficulties using or understanding facial expressions, tone of voice, sarcasm and irony, it is important that we as coaches and activity leaders try to make communications as clear as possible.

Practical considerations:



Visual aids

You will find that the learning styles of your participants will differ with some preferring verbal instruction and some preferring visual aids. Additionally some participants may have limited or no speech. In such circumstances you may find it beneficial to provide visual aids to facilitate understanding. We have listed some examples below and included examples and templates in the additional resources section.

- picture symbols
- Visual timetable
- Now & Next

Social interaction

To recap, some people on the autism spectrum may:

- prefer to spend time alone rather than seeking out the company of other people
- not understand the unwritten social rules which most of us pick up without thinking. For example they may stand too close to another person, or start an inappropriate subject of conversation
- appear to be insensitive because they have not recognised how someone else is feeling
- not seek comfort from other people
- appear to behave differently or inappropriately, as it is not always easy for them to express feelings, emotions or needs.

Practical considerations:

Use participants names to gain attention – some participants may not make eye contact and so may not know you are talking to them

Begin with one to one activities, perhaps making use of a support worker or assistant activity leader

Respect someone's preference to spend time alone – do not force people into group situations that may be distressing

Social skill groups can provide people with a safe environment to learn and practice skills

Adopt a staggered approach to integrating participants into a larger group - very gradually add more people into the activity

Social stories and comic strip cartoons can be a good way to teach social skills and skills such as turn taking and etiquette around winning and losing

Restricted and repetitive patterns of behaviours, activities or interests

To recap, these differences may mean that autistic people find it hard to:

- understand and interpret other people's thoughts, feelings and actions
- predict what will happen next, or what could happen next
- understand the concept of danger, for example they may be unaware that running straight from the changing rooms and jumping into the swimming pool even though they are unable to swim, poses a danger to them
- engage in imaginative play and activities; people on the autism spectrum may enjoy some imaginative play but prefer to act out the same scenes each time
- prepare for change and plan for the future
- cope in new or unfamiliar situations.

Practical considerations:

Try not to promise anything that can't be guaranteed

Ensure that the environment is structured with clear boundaries in place

Help participants to prepare for change through the provision of supported rehearsal or Now and Next visual aids

Consider the use of visual aids and resources such as visual timetables, social stories and picture symbols

Offer the opportunity for participants to meet you and explore the environment at a quieter time ahead of the session

Provide a consistent structure to the session – but remember that this doesn't necessarily mean doing the same activity every time!

Sensory strategies

The sensory processing differences experienced by some autistic people have been looked at earlier on in the resource. The template below gives an example of how to find out if your participants have any sensory processing differences as well as looking at what strategies you can use to help a person with sensory sensitivities to participate in their chosen activity. It is important to remember that some people who have sensory processing differences may not necessarily be autistic, and similarly just because someone is on the autism spectrum this doesn't mean they will experience all of these sensory processing differences.

The sensory profile below is a fictional example to give you an idea of potential sensory processing differences. You will find a blank template in the additional resources section to use with your participants.

Sensory system	*Example of hypersensitive behaviour*	*Suggested strategies*	*Example of hyposensitive behaviours*	*Suggested strategies*
Tactile (touch)	*Touch is painful and uncomfortable*	*Warn the person if you are going to touch them or avoid physical contact*	*Has high pain threshold*	*Be vigilant when checking for injuries*
Visual (sight)	*Easily distracted by certain lighting*	*Use blackout blinds where possible and face participants away from bright lights*	*Sees things darker, lose features and lines*	*Use bright equipment to stimulate the visual system*
Auditory (sound)	*Noise volume is magnified and surrounding sounds distorted*	*Shut windows and doors when working inside to reduce external sound Prepare the person for noisy places through gradual exposure*	*Doesn't acknowledge particular sounds*	*Use visual cues to back up the verbal information*
Gustatory (taste)	*Certain flavours are too strong and overpowering*	*Encourage people to clean out their mouths with water*	*Pica - may eat things that aren't meant to be eaten such as grass, soil, materials*	*Busy them with activities and equipment to distract away from putting soil in their mouth*
Olfactory (smell)	*Aversion to the smell of chlorine*	*Use social stories to explain the reason for the smells. For example swimming pools will have a strong chlorine smell, but this is necessary to keep the water clean*	*Doesn't notice extreme odours*	*Encourage participants to wash after physical activity*

Sensory system	*Example of hypersensitive behaviour*	*Suggested strategies*	*Example of hyposensitive behaviours*	*Suggested strategies*
Proprioceptive (body awareness)	*Dislikes close proximity of others*	*Allow the person to stand at the end of the line when waiting their turn*	*Stands too close to others*	*Use the arms-length rule or use throw down footprints to indicate where participants should be stood*
Vestibular (balance and movement)	*Dislikes activities that require a lot of movement*	*Break the activity down into smaller steps*	*Seeks opportunity for movement*	*Allow plenty of movement breaks during an activity*

In addition to the strategies suggested in the table, it is also important to consider the following:

- Respect the sensory differences – we all experience sensory differences in one way or another but for someone on the autism spectrum the experience may be heightened
- Avoid the cause of the sensory discomfort where possible. We know that this isn't always a realistic suggestion; but in some cases it may be possible
- Gradually expose the participant to the sensory discomfort whilst simultaneously ensuring that you build in positive experiences. For example, if the participant knows that once they arrive in the noisy sports hall they are going to enjoy the activity, they may be more inclined to gradually spend longer in the space
- Conduct an audit of the environment in which the activity will be taking place – similar to a risk assessment but instead looking for potentially overbearing sensory stimuli
- Some participants may experience synaesthesia - a rare condition whereby a sensory experience goes in through one system and out through another. So a person might hear a sound but experience it as a colour. In other words, they will 'hear' the colour blue.

Inclusion Spectrum & STEP

In order to provide an inclusive physical activity environment there are a number of tools available to help you. One of these is called The Inclusion Spectrum – but what is this and how can you use it to help with your delivery?

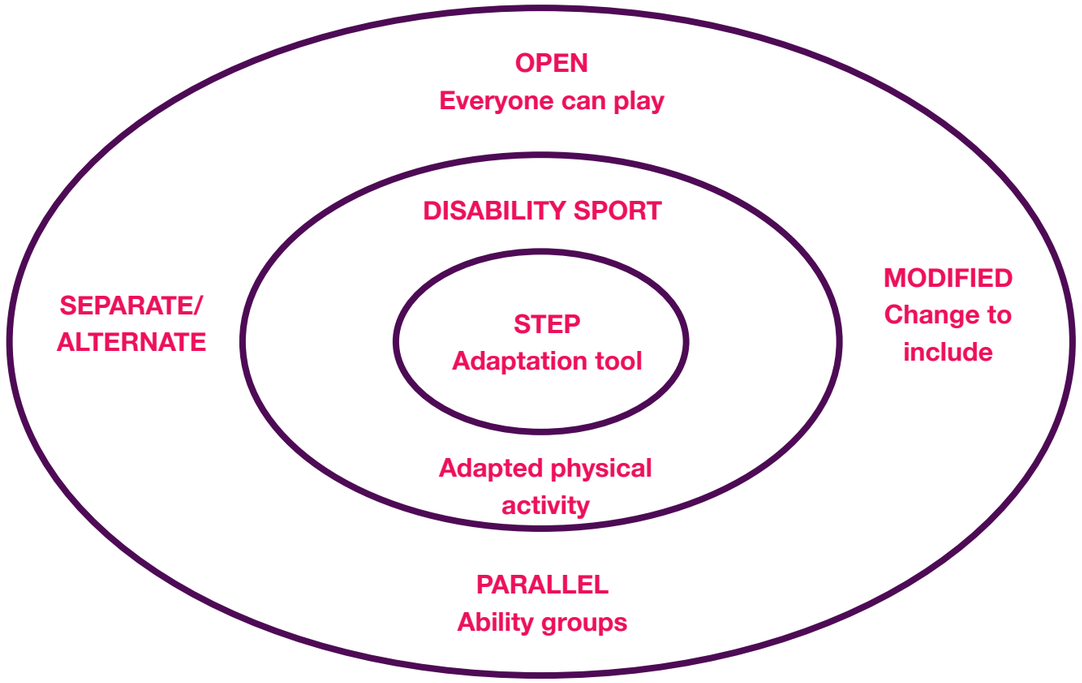
- A structure for inclusion
- A flexible tool for use with a wide range of activities and abilities
- A continuum of participation
- A social-environmental approach
- Emphasis on ability not disability
- Varying rates of progression and development

Below you will find examples for how to use each aspect of The Inclusion Spectrum:

Open activity – everyone can play
Everyone is doing the same activity without adaptations or modifications. For example:

Consider a game of traffic lights, which involves the skills of running and stopping. Participants can choose to move in their own way at their own speed particularly when the coloured cones are used as visual aids to accompany the verbal instructions. On the green 'go' cone, instruct participants to 'move' rather than telling them to 'run'.

The Inclusion Spectrum



Ken Black/Pam Stevenson - The Inclusion Spectrum incorporating STEP - December 2014

Modified activity – change to include
Everyone is doing the same activity but with changes made to the rules, space and/or equipment to ensure that everyone is able to join in. For example:

During a throwing and catching activity, allow participants to select the type of ball they feel most comfortable with. In some cases an autistic participant may struggle to grip the ball due to proprioceptive differences. This participant may feel more comfortable using a ripple ball which is easier for them to grip.

Parallel activity – ability groups
Participants are grouped according to ability – everyone participates in the same activity but at a level appropriate to themselves. For example:

In a game of netball, the majority of the group may wish to play the standard game of netball, whilst you may also have a participant who isn't comfortable with large groups but who still wants to attempt the activity in some form. This participant may benefit from one to one coaching whereby they can practice the skills required for the complete game of netball.

Alternate/separate activity
A person or group does a separate activity. For example:

A participant who is hypersensitive to noise may be unable to participate in activities in the sports hall due to the loud nature of the environment. They may instead require a personalised program which combines sensory integration activities with physical activity. Examples include rocking activities or practicing gripping activities with different types of balls and inclusive equipment.

Disability sport/reverse integration
Non-disabled people take part in disability sport such as boccia, wheelchair basketball, goalball or table cricket. Not only does this increase participation for disabled participants; it also encourages the non-disabled participants to learn new skills.

In order to adapt your activity appropriately, the STEP tool can help you to determine which aspects of the activity to modify.

	How can I change…	*Examples*
Space	*Where the activity is taking place*	*Increasing or decreasing the activity space can alter the difficulty of the task*
Task	*What we are doing*	*Ensure that everyone has the opportunity to participate. Break the activity down into smaller chunks and offer one to one support where possible*
Equipment	*What we are using*	*Provide a range of inclusive equipment to ensure that everyone has the opportunity to participate. A participant who struggles with catching may need to begin with a larger ball*
People	*Who is involved*	*Match participants of similar ability. It may be necessary for one team to have extra players to facilitate inclusion*

SPELL

Another useful tool is The National Autistic Society's SPELL framework. Designed to help practitioners to understand and respond to the needs of children and adults on the autism spectrum, the framework recognises the individual and unique needs of each individual and emphasises that planning and intervention should be organised.

SPELL stands for Structure, Positive (approaches and expectations), Empathy, Low arousal, Links.

Structure

Coaches and activity leaders should strive to meet this requirement of the SPELL framework and try to facilitate independent action by following the steps outlined below:

- To enable the person to predict events and understand their environment
- To support and overcome difficulties in organising a variety of everyday and more complex tasks
- To use visual communication to support this structure, playing to visual strengths

Examples of ways that coaches can provide structure in their sessions include visual timetables, picture symbol resources, using clear boundaries clearly outlining the session area.

It is also important to have structure in unstructured environments, for example during 'free play' ensure that there is an activity set out should participants feel overwhelmed or anxious by the lack of structure.

Positive (approaches and expectations)

This aspect of the SPELL framework states that we must seek to establish and reinforce self-confidence and self-esteem by building on natural strengths, interest and abilities. Coaches and activity leaders should consider the following:

- Reduce the stress and anxiety experienced by the person
- Introduce new experiences in a familiar environment
- Engage in a way that begins from the person's perspective – use one page profiles
- Use special interests as motivators
- Holistic approach
- Build confidence and self-esteem, tell individuals when they are doing ok
- Make sure tasks are achievable, teach in small steps

Empathy

It is important to try and understand how people on the autism spectrum see and experience the world. Coaches and activity leaders should try and find out what motivates or interests their participants as well as also considering what may frighten, distract of distress them.

Here are some suggestions to help session leaders to build empathy with the individual:

- Develop a 'player profile' including triggers for certain behaviours, motivators, interests and causes of distress or anxiety.
- Include a sensory profile to understand which stimuli may cause sensitivities for the participant
- Provide social stories for areas of difficulty
- See behaviour as a means of communication
- Check for understanding. If you ask 'do you understand?' participants are likely to respond with learned phrases or echolalia. Coaches can check for understanding by asking participants to demonstrate the activity or by telling their peers what is expected of them during the session
- Respect the individual and their right to be different
- Take fears and worries seriously

Low Arousal

The approaches and environment need to be calm and ordered in such a way so as to reduce anxiety and aid concentration.

Coaches and activity leaders are more likely to adopt a low arousal approach if they incorporate the following into their delivery:

- Check the activity space for potential distractions. This may include checking the lighting, smells, noise
- Bring along only the equipment that you plan to use in the session or keep any excess equipment in a specific space away from the participants and the activity space
- Provide/allow the use of supportive aids such as ear defenders to allow sounds to be blocked out or sensory aids
- Adopt a non-confrontational style of interaction, for example use 'end' or 'finished' rather than 'stop' or 'no'

Links

It is important for coaches and activity leaders to maintain communication with the participants and their support networks. Links with support networks and other organisations enable the individual to participate in a meaningful way and it can also be useful when creating visual resources, social stories or updating the player profiles and sensory profiles to ensure that you are keeping up to date with their interests, motivators and causes of anxiety.

"In a coach, I look for someone who is reliable and punctual, and who lets me know in advance what we will be doing in each session. They also need to be very straightforward and clear in their instructions - and have a lot of patience as my verbal processing can be slow."

Alis Rowe - Olympic style weightlifter (non competitive)

Additional resources

Picture symbols

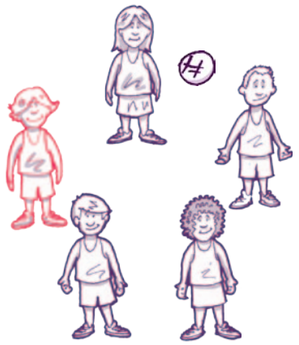
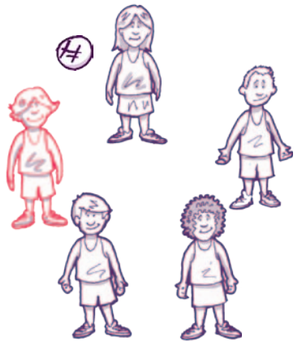
Social stories

Social stories™ were created by Carol Gray in 1991 to help teach social skills to autistic people. They are short descriptions of a particular situation, event or activity, which include specific information about what to expect in that situation and why.

In sport or physical activity sessions they may be used to prepare someone for an event, or to teach someone the consequences of their actions. Ultimately coaches want to promote positive behaviours in their sessions and by using a social story participants can begin to understand how and why certain situations occur.

Below you will find an example of a social story followed by a blank template for your own use. It is important to remember that the examples below are generic examples and it is recommended that you created a personalised social story for each participant. Visit The National Autistic Society website for detailed advice on creating social stories.

Learning to take turns in games

		
Playing games with other people can be fun	When we play games, we all wait for our turn.	Sometimes, I get to go first. I enjoy going first.
		
I remember that sometimes other people like to go first too.	Sometimes, I am waiting for everyone to have a go, and then it is my turn. This is ok!	We all have a go at being first, playing games with other people is fun!

Social story – blank template

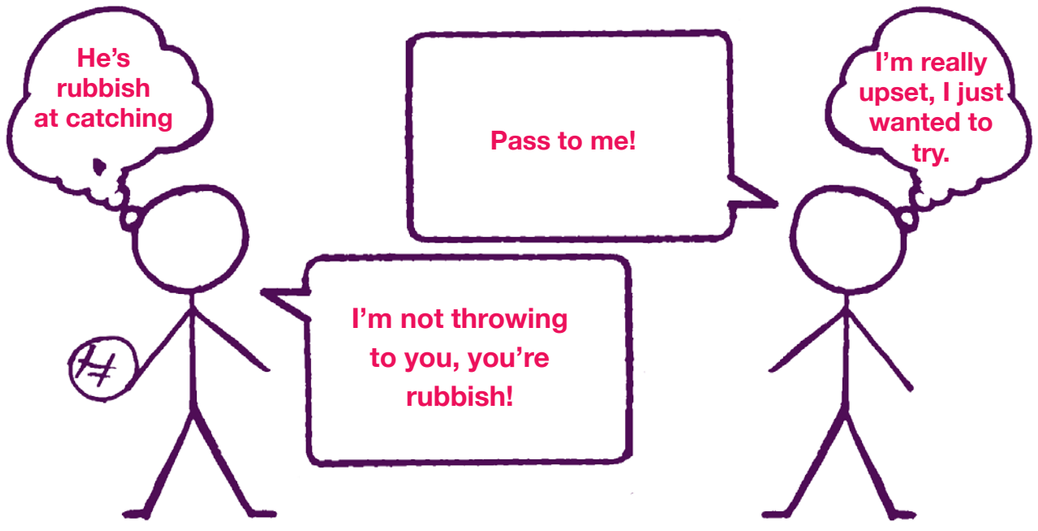
Comic strip conversations

Comic strip conversations, also created by Carol Gray, are simple visual representations of the different levels of communication in a conversation. For example, they could show:

- the things that are actually said in a conversation
- how people might be feeling
- what people's intentions might be.

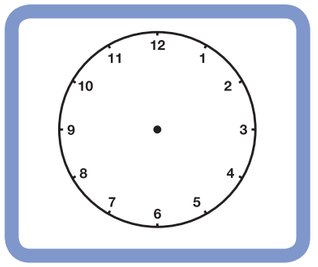
Comic strip conversations use symbols, stick figure drawings and colour. By seeing the different elements of a conversation presented visually, some of the more abstract aspects of social communication (such as recognising the feelings of others) are made more 'concrete' and are therefore easier to understand.

The terms 'social story' and 'social stories' are trademarks originated and owned by Carol Gray. All rights reserved.

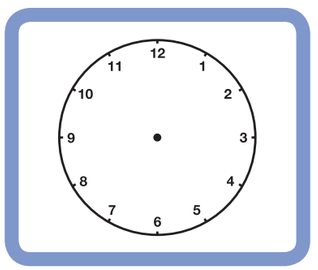


Visual timetable

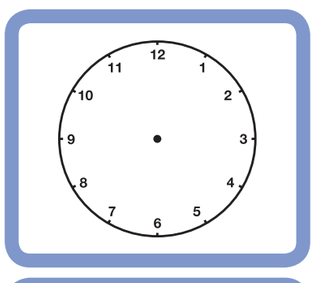
P.E.



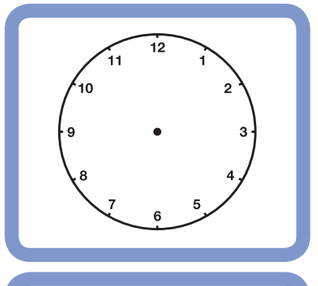
Gymnastics



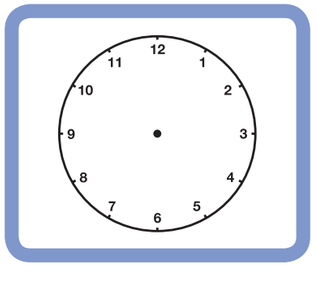
Break time



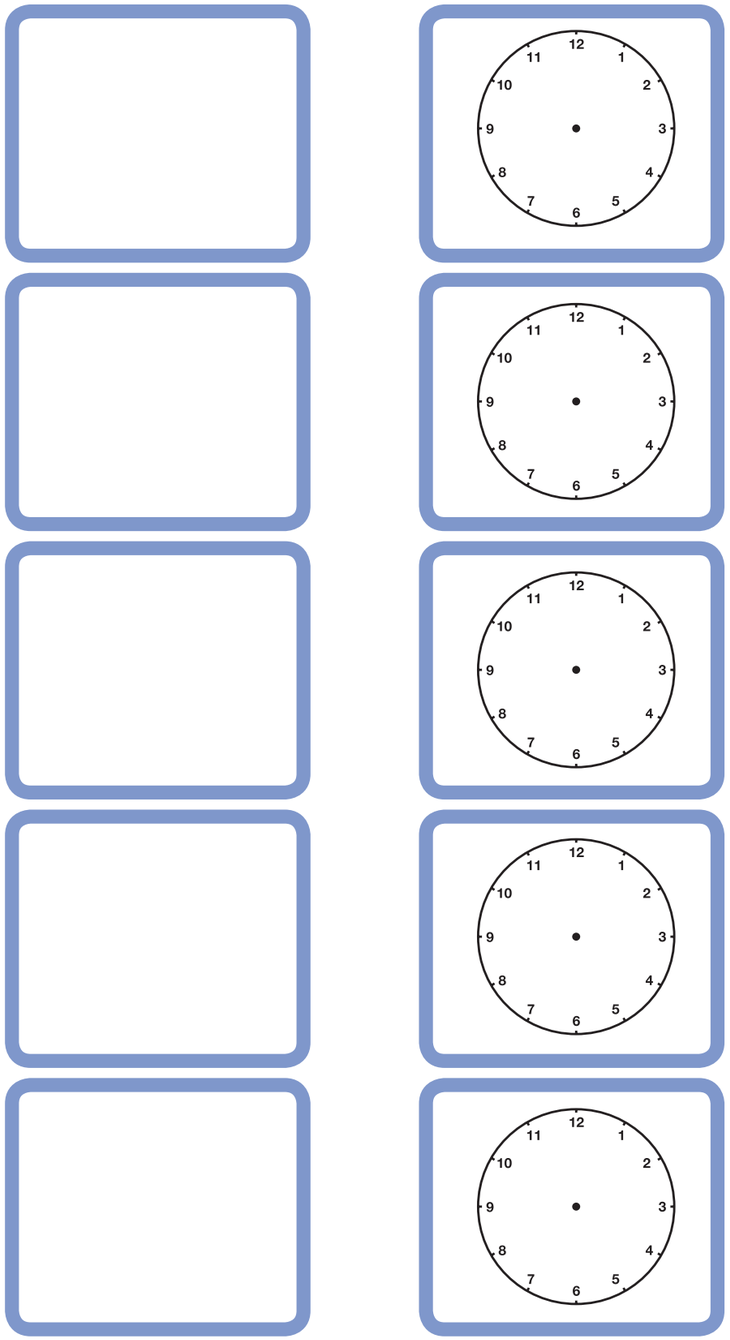
Circle time



Home time



Visual timetable - blank template



NOW

NEXT

NOW

NEXT

THEN

TASK 1

TASK 2

TASK 3

REWARD

Sensory profile - blank template

Sensory system	*Example of hypersensitive behaviour*	*Suggested strategies*	*Example of hyposensitive behaviours*	*Suggested strategies*
Tactile (touch)				
Visual (sight)				
Auditory (sound)				
Gustatory (taste)				
Olfactory (smell)				
Proprioceptive (body awareness)				

The Inclusion Spectrum

How would you ensure that your activities are inclusive? Describe an activity for each section of the Inclusion Spectrum.

Open (Everyone can play)

Modified (Change to include)

Parallel (Ability groups)

Separate/Alternate

Disability sport

STEP

Use the template below to think about how you could use STEP to adapt your activity in order to include all participants.

	How can I change…	*Examples*
Space	*Where the activity is taking place*	
Task	*What we are doing*	
Equipment	*What we are using*	
People	*Who is involved*	

Useful links

Websites

The National Autistic Society – **www.autism.org.uk**
Network Autism – **http://network.autism.org.uk**

Further learning opportunities

The National Autistic Society offers autism awareness for sport and physical activity leaders, in a variety of formats. Training is available in the following formats:

- Two day course
- One day course
- Half day course
- Online module

Each format of the training (excluding the online module) include theory combined with practical elements to enable you to build upon the knowledge learnt in the initial introductory session. These courses offer a more in depth look at autism in relation to sport and physical activity, helping you provide more opportunities for autistic people to participate in your sessions.

www.autism.org.uk/active

The National Autistic Society

We are the UK's leading autism charity. Since we began over 50 years ago, we have been pioneering new ways to support people and understand autism. We continue to learn every day from the children and adults we support in our schools and care services.

Based on our experience, and with support from our members, donors and volunteers, we provide life-changing information and advice to millions of autistic people, their families and friends. And we support professionals, politicians and the public to understand autism better so that more autistic people of all ages can be understood, supported and appreciated for who they are.

Until everyone understands.

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Website: **www.autism.org.uk/getinvolved**

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