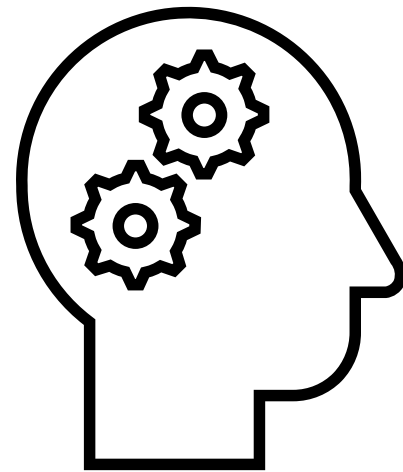
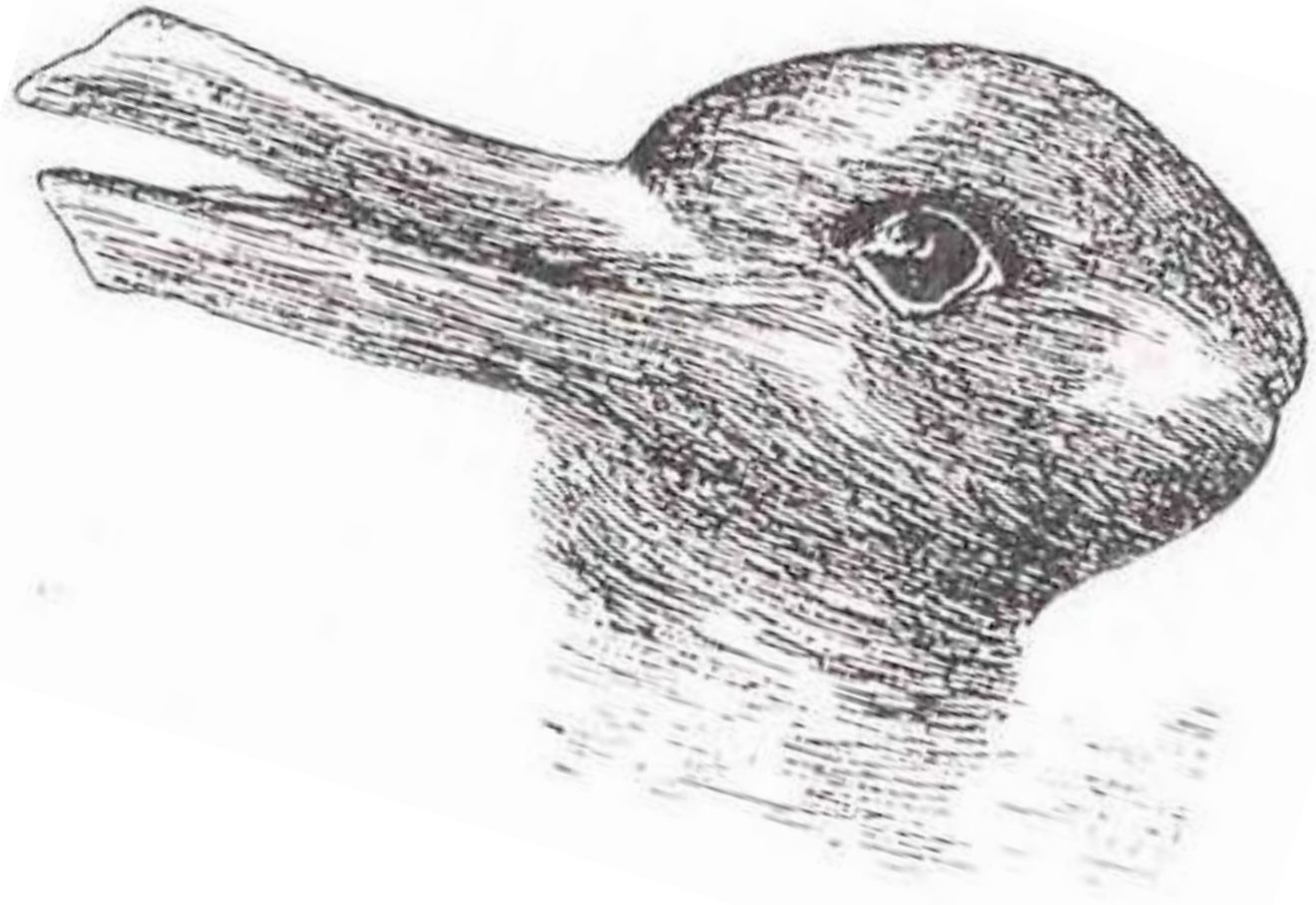


Neurodiversity

Delivered by
Steph Hull – ASC Advisory Teacher
Knowsley MBC



What do you
see?



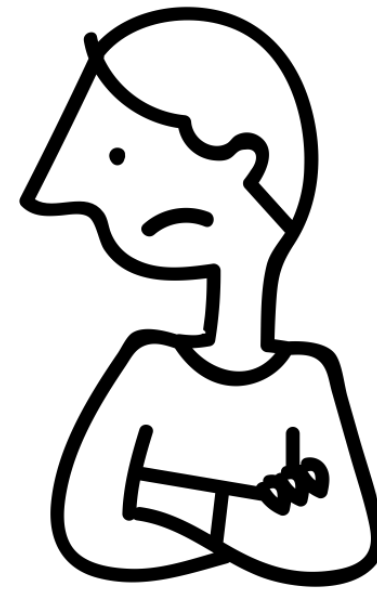
What do you
see?



How do you cross your arms?



Created by ester barbato
from Noun Project



Created by ester barbato
from Noun Project

Neurodiversity

The term Neurodiversity created in the 1990's by Sociologist Judy Singer. This umbrella term includes:

- Autism,
 - Dyspraxia,
 - Attention Deficit Hyperactivity Disorder (ADHD)
 - Dyslexia
 - Dysgraphia
 - Dyscalculia
 - Tourette's
- The terms neurodiversity or neurodiverse condition are preferred over the term disability. This can insinuate a lack or deficit.
- A person who is neurodivergent has one or more neurodiverse conditions
- A person who is neurotypical does not have a neurodiverse condition



Created by AFY Studio
from Noun Project

Dyslexia, Dyscalculia, Dyspraxia, ADHD Causes

Exact cause is unknown

Thought to be genetic

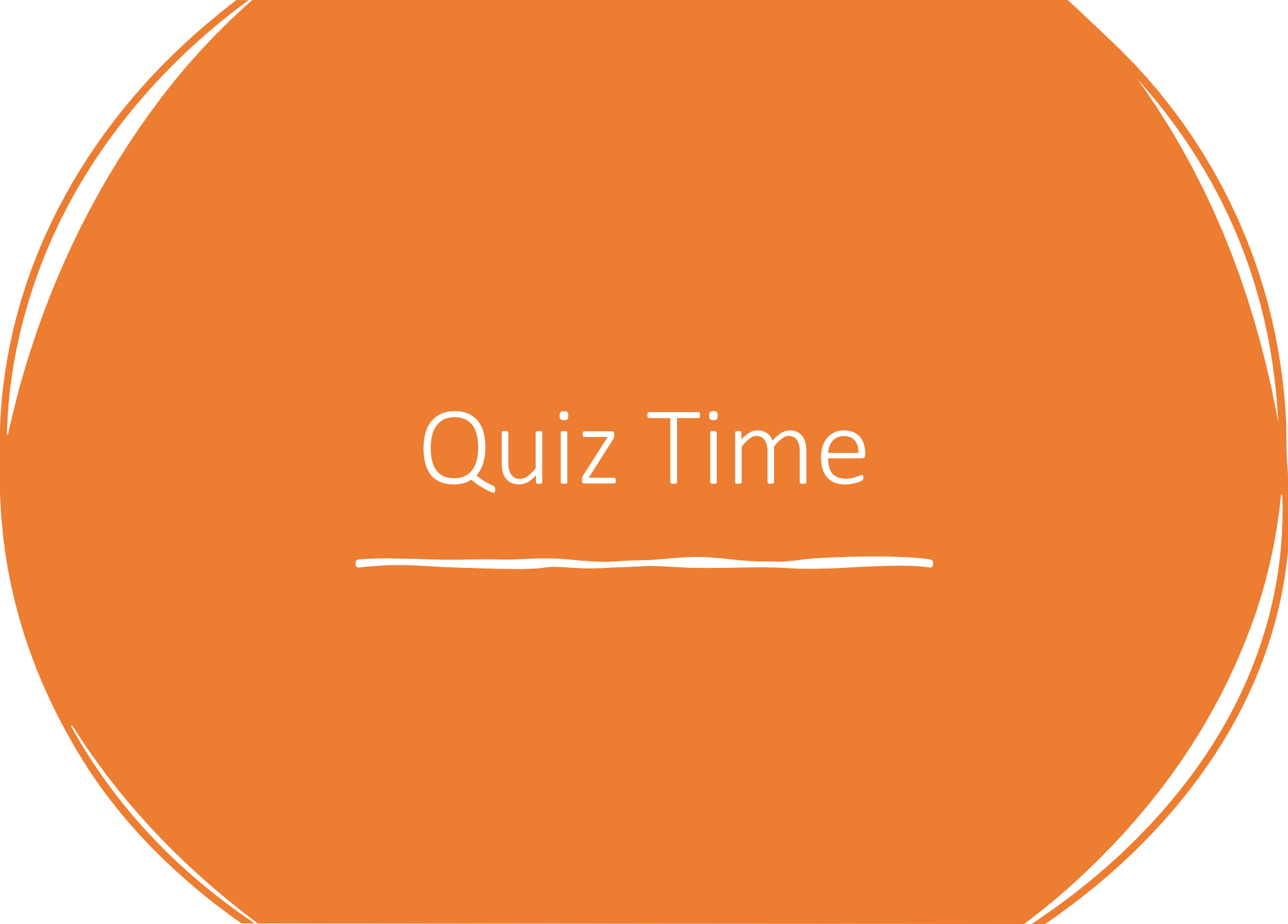
- Other risk factors for Dyspraxia and ADHD

Being born early

Having a low weight when you were born

These conditions have nothing to do with how clever you are

- [NHS UK \(www.nhs.uk\)](http://www.nhs.uk) – accessed December 21



Quiz Time

Guess the Celebrity



Robbie Williams



Billie Eilish



Stephen Graham



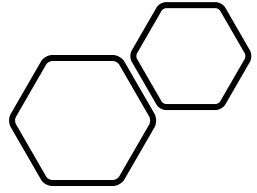
Anne Hegerty



Daniel Radcliffe



Simone Biles



Dyslexia

Dyslexia is thought to affect around 10% of the population. [6]

Dyslexic people may:

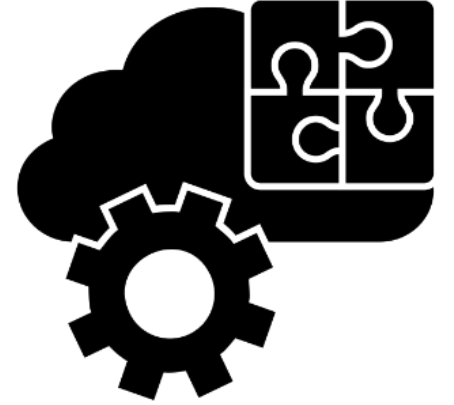
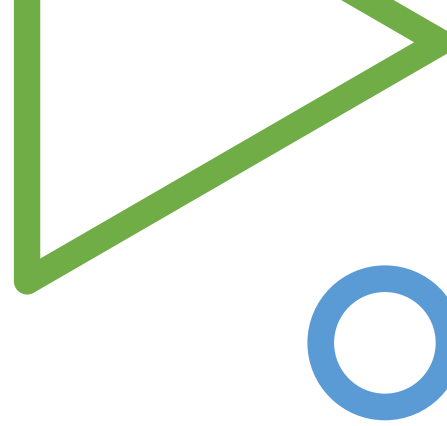
- Have difficulty with spelling words
- Mix up letters within words
- Mix up words within sentences

Dyslexia can also affect a person's memory, how they remember things and how they organise things



Dyslexia Skills & Qualities

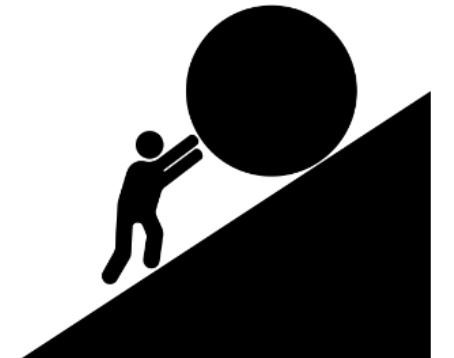
- Problem solving and trouble shooting
- Able to visualise how things will look
- Innovative and intuitive
- Hard-working enthusiastic
- Creative, musical, artistic



Created by Vectors Point
from Noun Project



Created by Chameleon Design
from Noun Project



Created by Lucas Kazmierski
from Noun Project
[Dyslexia-Oct17.pdf \(remploy.co.uk\)](https://www.remploy.co.uk)



Dysgraphia

Dysgraphia is a condition that affects a person's memory processing, hindering the fine motor skills required to write clearly, efficiently, and coherently. People with dysgraphia can have difficulty converting the sounds of language (phonemes) into writing (graphemes).

Some signs of dysgraphia include:

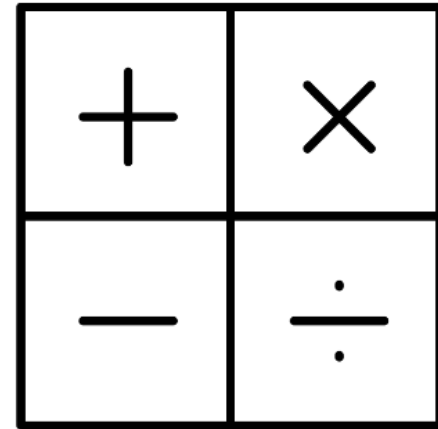
- unclear, irregular, or inconsistent handwriting
- handwriting with different slants, letters of different shapes
- incorrect mixture of upper and lowercase letters
- inconsistent use of jointed and printed letters

There is a common misperception that dysgraphia refers to motor coordination difficulties that could cause messy handwriting.

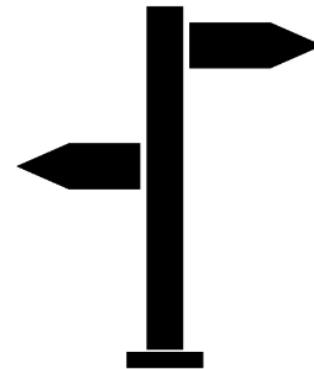
Dysgraphia can only be diagnosed by an Educational Psychologist.

Dyscalculia

- Dyscalculia is a difficulty understanding numbers and mathematical symbols.
- It is thought to occur in 6% of the population.
- People may have difficulties with:
 - Numeracy and maths
 - Telling the time
 - Time keeping
 - Understanding quantity,
 - prices and money
 - Following directions
- People with dyscalculia may experience problems with sequencing, memory and organisational skills.



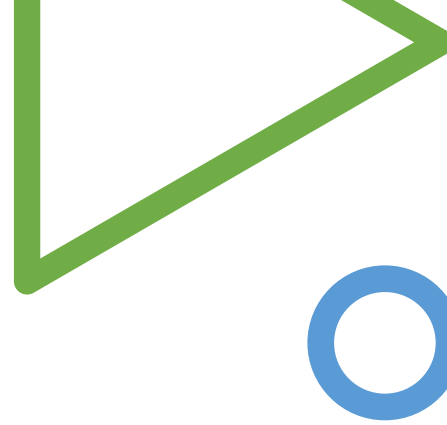
Created by Noura Mbarki
from Noun Project



Created by richbusiness10
from Noun Project

Dyscalculia Skills & Qualities

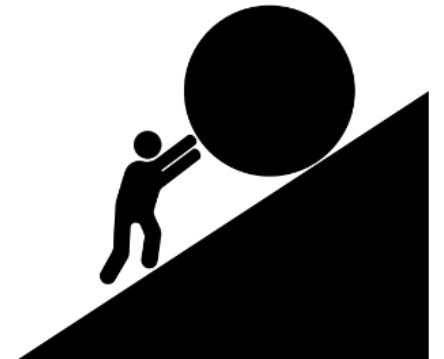
- Good verbal communication skills
- Innovative and intuitive
- Problem solving and trouble shooting
- Creative, musical, artistic
- Hard-working enthusiastic



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Created by ProSymbols
from Noun Project



Created by Lucas Kazmierski
from Noun Project

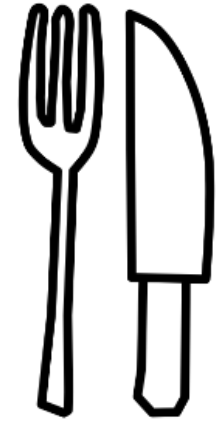


Dyspraxia

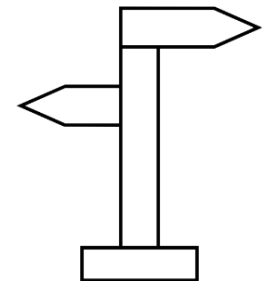
Dyspraxia is thought to affect between 2-6% of the population.
[8]

People with dyspraxia may:

- Have poor hand-eye co-ordination
- Difficulties with driving a car
- Have difficulty following directions. Be a bit clumsy and bump into things
- Be poor at two-handed tasks; tying shoelaces, using cutlery, tying laces
- Struggle with short term memory



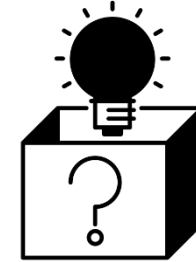
Created by P Thanga Vignesh
from Noun Project



Created by designvector
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Dyspraxia Valued Skills & Qualities

Determination



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Thinking outside the box



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Creativity and imagination

Good problem solving skills



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Considerate and patient with others

What is it like to have ADHD?

A child's perspective



What some children say life with ADHD is like

- “There are too many tabs open on my brain’s computer browser”
- “I can think of original ideas and solutions – and forget them just as quickly”
- “I enjoy activities where I can move and talk”
- “It feels like having a “Ferrari brain, with bicycle brakes”
- “ADHD is like being in a room with 6 television sets – I can’t focus on one TV because there is too much distraction!”
- “With things I really enjoy, I can concentrate, forget about my worries and lose track of time”

From A Teenagers Guide to ADHD – The ADHD Foundation

Characteristics of ADHD

Attention deficit hyperactivity disorder (ADHD) is a condition that affects people's behaviour. In the UK, the prevalence of ADHD in adults is estimated at 3% to 4%, with a male-to-female ratio of approximately 3:1.

	Challenges	Advantages
Inattention	Difficulty concentrating Forgetful Mind wandering – daydreaming & easily bored Difficulty following a logical sequence of thoughts or actions Easily distracted Procrastination – difficulty making a decision or starting a task Poor short and long term memory	Imaginative Enjoys new experiences and novelty Good 'visual imagery' – thinking in pictures. Creativity Thinking outside the box
Impulsive	Saying or doing things without thinking through the consequences Disorganised Interrupt others	Curious Enthusiastic Adventurous Creative thinkers Solution focused
Hyperactive	Fidgeting Difficulty staying still Needing to move about	Energetic Drive Hard working Enthusiastic

ADHD effects how we manage and understand our emotions

**"I have been told many times
that I am "too sensitive?"**
Charlotte aged 13

**"I often feel that I am more
emotional than my friends"**
Harry aged 16

**"My friends tell me I worry too
much that things will go wrong"**
Rashad aged 12

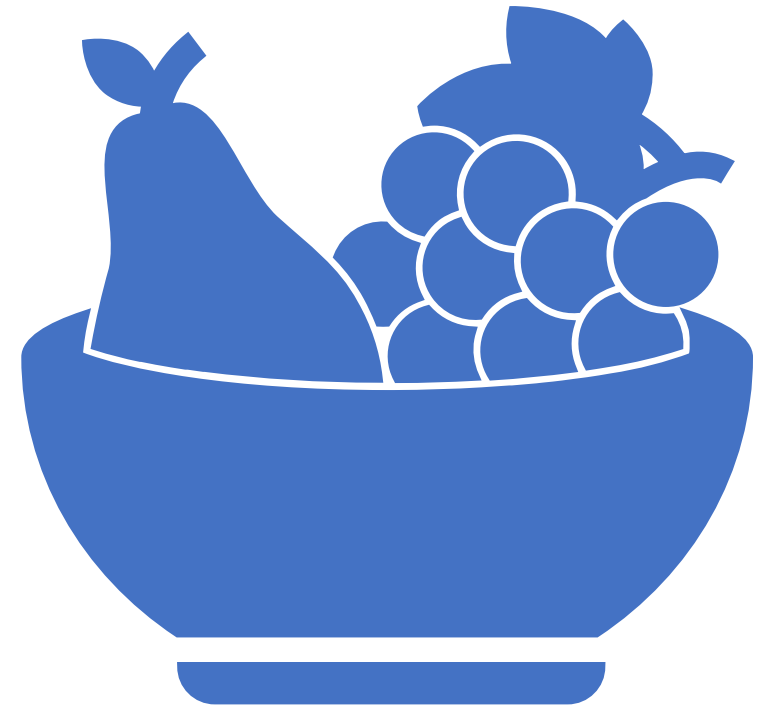
**"I find I really can't motivate
myself to do anything"**
Safi aged 15

**"I get angry easily and
always regret it afterwards"**
Marcus aged 14

"I just can't deal with criticism of any kind"
Jason aged 15

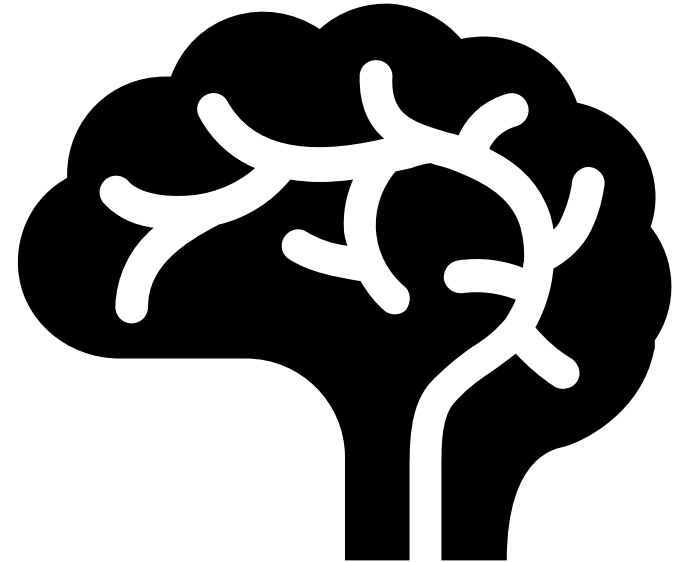
How to Manage feelings

- 1) Physical exercise and healthy living – regular sensory or movement breaks. Sensory circuits at regular intervals.
- 2) Talk to a trusted person over feelings and anxieties – discuss and resolve anxieties so they do not carry on.
- 3) Practice mindfulness and self-regulation – ‘Zones of Regulation’. Learn ways to manage anxieties and emotions.
- 4) Devise a weekly routine to help planning and reduction of anxiety.
- 5) Make time to socialise and spend time with friends.



Tourette's

- Tourette's syndrome is a condition of the nervous system that causes people to experience tics, or sudden movements or sounds that are done repeatedly.
- Common co-occurring conditions can include OCD and ADHD.
- It can be exhausting and, in some cases, painful for the person as movements are repetitive.
- It usually starts during childhood, but the tics and other symptoms usually improve after several years and sometimes go away completely.
- Being focused can often help but times of stress, anxiety and fatigue can make tics worse.
- Swearing is rare and only affects about 1 in 10 people with Tourette's syndrome.
- There's no cure for Tourette's syndrome, but treatment can help manage symptoms.





What do people think of when they hear the word Autism?

- Rain man?
- Someone with special talents in art like Stephen Wiltshire?
- A young person with a dedicated special interest like Greta Thunberg?
- Someone with learning disabilities like Harvey Price?
- A child having a meltdown?

“If you’ve met one autistic person, you’ve just met one autistic person.”



Famous Autistic People

The following people all have Autism and have all been very successful in life

Autism myth busting

Autism is a learning disability

- Myth - a learning disability is a reduced intellectual ability and difficulty with everyday activities – for example household tasks, socialising or managing money – which affects someone for their whole life. Some autistic people also have a learning disability, but some do not.

Autism cannot be cured

- Fact - Autism is a lifelong condition and there is no cure. 'Cures' for autism do not work and can be harmful. Autism is not something to be fixed. It is not a deficiency or disease but a different way of seeing and experiencing the world.

Autism myth busting

You can't be autistic if you have friends

- Myth – Autistic people might socialise in a different way to neurotypical people, but this does not mean that it's wrong or a deficit, it's just different. Many autistic people have jobs or hobbies where they interact with others.

Everyone is a little bit autistic

- Myth - sometimes people think about autism as just being introverted or a bit socially awkward, but this is very invalidating. Autism is a neurotype that affects how people communicate and experience the world.

What is Autism?

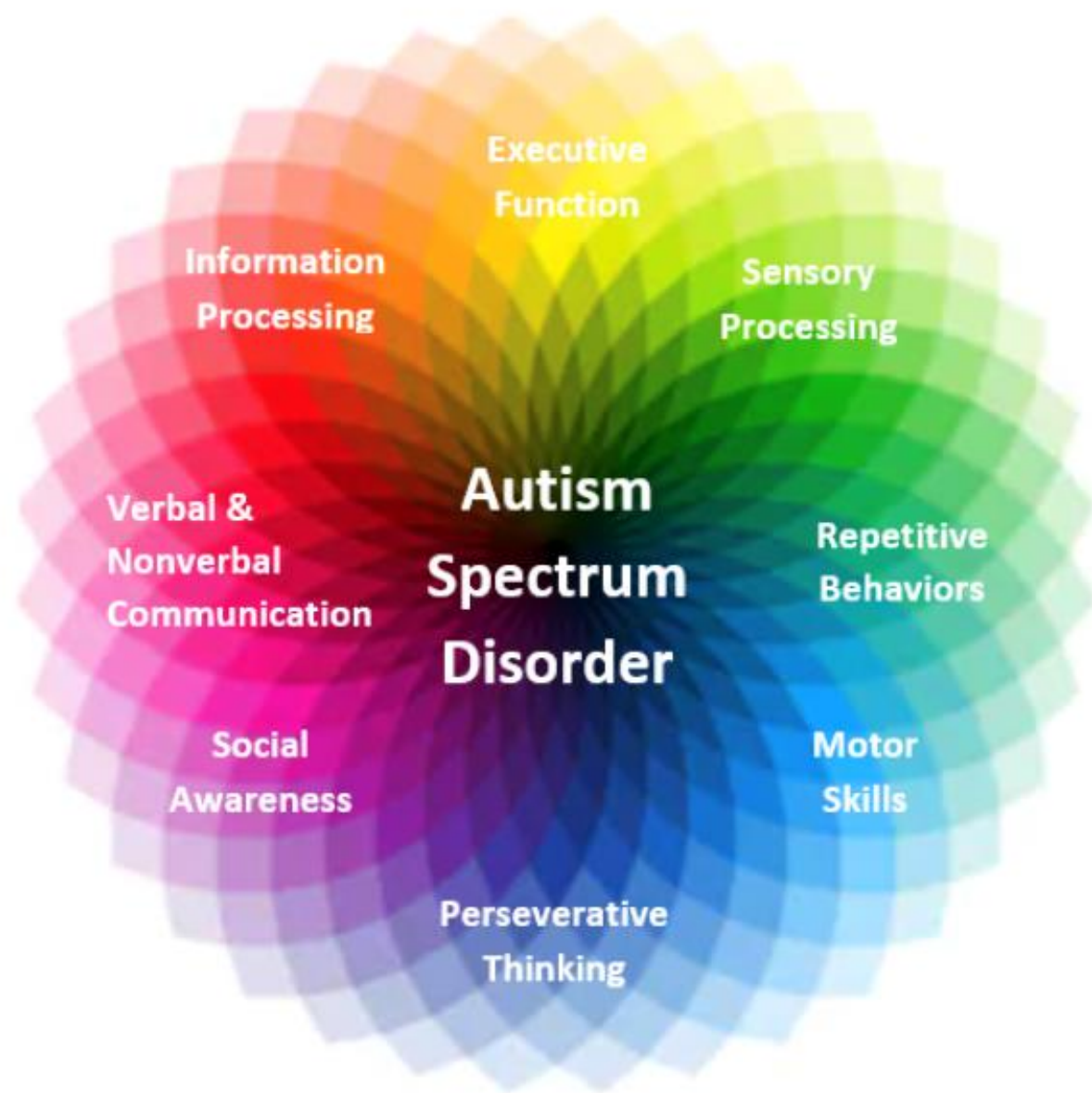
No two people with autism are the same. It affects more than 1 in 100.

It is known as ASD (Autistic Spectrum Disorder) or ASC (Autistic Spectrum Condition).

Autism is thought to be caused by Genetics. (National Autistic Society 2021)

It affects talking to people, being around people, and problem solving.

Those with ASC may often have other conditions such as dyslexia, ADHD, anxiety, sleep disorders and epilepsy



Key features of Autism

The DSM – 5 says in order to be diagnosed with autism you must have:

- 1) Social communication and social interaction difficulties.
- 2) Limited or repetitive thoughts, behaviours or sensory issues.

Asperger's syndrome is an old term for an autistic person who has better communication skills. As these people are still autistic, the name isn't used anymore.

Demand avoidance can be part of a person's autism profile. This is not currently a diagnosable condition itself. It is a set of traits linked to extreme anxiety within an autistic person.

ADHD is not part of Autism, but they share several key characteristics.

Social communication

Autistic people may have difficulties with understanding:

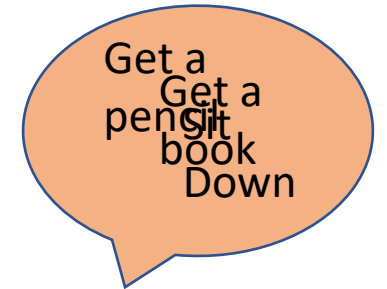
- Verbal communication
- Non-verbal language (e.g. facial expressions)

Some autistic people do not speak or can only speak a little.

Some autistic people can struggle to understand sarcasm or tone of voice.

Other challenges may include:

- taking things literally
- needing extra time to think
- repeating what others say to them (this is called echolalia)



Guess the phrase



Caught Red Handed



Created by Alexa Mendoza
from Noun Project

Home is where the
heart is



Let the cat out of the
bag



Put your foot in
your mouth



Created by Aenne Brielmann
from Noun Project

Raining cats and
dogs

Social interaction Challenges

- Difficulty 'reading' other people – although neurotypical people have difficulty reading autistic people too!
- Difficulty recognising or understanding other people's feelings and knowing what they will do.
- Difficulty expressing their own emotions.

Autistic people may:

- appear to be rude or mean
- seek out time alone when overloaded by other people
- not want to be with other people when they are upset
- appear to behave in ways others don't understand
- find it hard to form friendships.

Repetitive and restrictive behaviour



The world is unpredictable which can make life confusing for Autistic people



Routines make things predictable and less confusing as you know what is going to happen.



E.g. Travel the same way to and from school, wear the same clothes or eat exactly the same food for breakfast.



Change to routine can be distressing and create anxiety. E.g. Christmas in school when lessons go off timetable.



Autistic people may repeat movements e.g. hand flapping, rocking, twirling a pen or opening and closing a door. This can be done to calm themselves when stressed or anxious, or because they find it enjoyable.

Highly focused interests or hobbies

Many autistic people have special interests that can change over time or be lifelong.

Autistic people can become experts in their special interests. E.g trains, the environment, video games

The special interests can give a huge amount of pleasure to an ASC person.

Being highly focused helps many autistic people do well academically and in the workplace but they can also become obsessed by topics or activities.



Paying
attention

Autism and anxiety

Statistics from autism-alliance.org.uk show:

- 42% of autistic children experience anxiety compared to 3% of non-autistic children.
- Only 26% of autistic children feel happy in school

Sensory issues, social interaction difficulties and changes to routine are just some of the reasons autistic children may experience anxiety, especially around attending school.

Research by Ambitious about Autism in early 2024 revealed the number of autistic children persistently off school had increased by 166% in four years.





Autism and anxiety

- Difficulties around identifying emotions can make an autistic child feel worse as not only do they feel anxious – they don't understand what it is or why they feel this way.
- Supporting the child to recognise these emotions can help them to understand when they're feeling anxious, and strategies can be learnt to better manage these emotions.

Sensory sensitivity

Autistic people can have over (Hyper) or under (Hypo) sensitivities to:

sounds

touch

taste

smell

light

temperatures

pain.

Autistic people can avoid everyday activities as it is too stressful to cope with these sensitivities



Experiencing
sensory
overwhelm

