# Neurodiversity Training for Construction

## Neurodiversity
## **Awareness Training**



**Provided by:**

Interclass

**Funded by:**

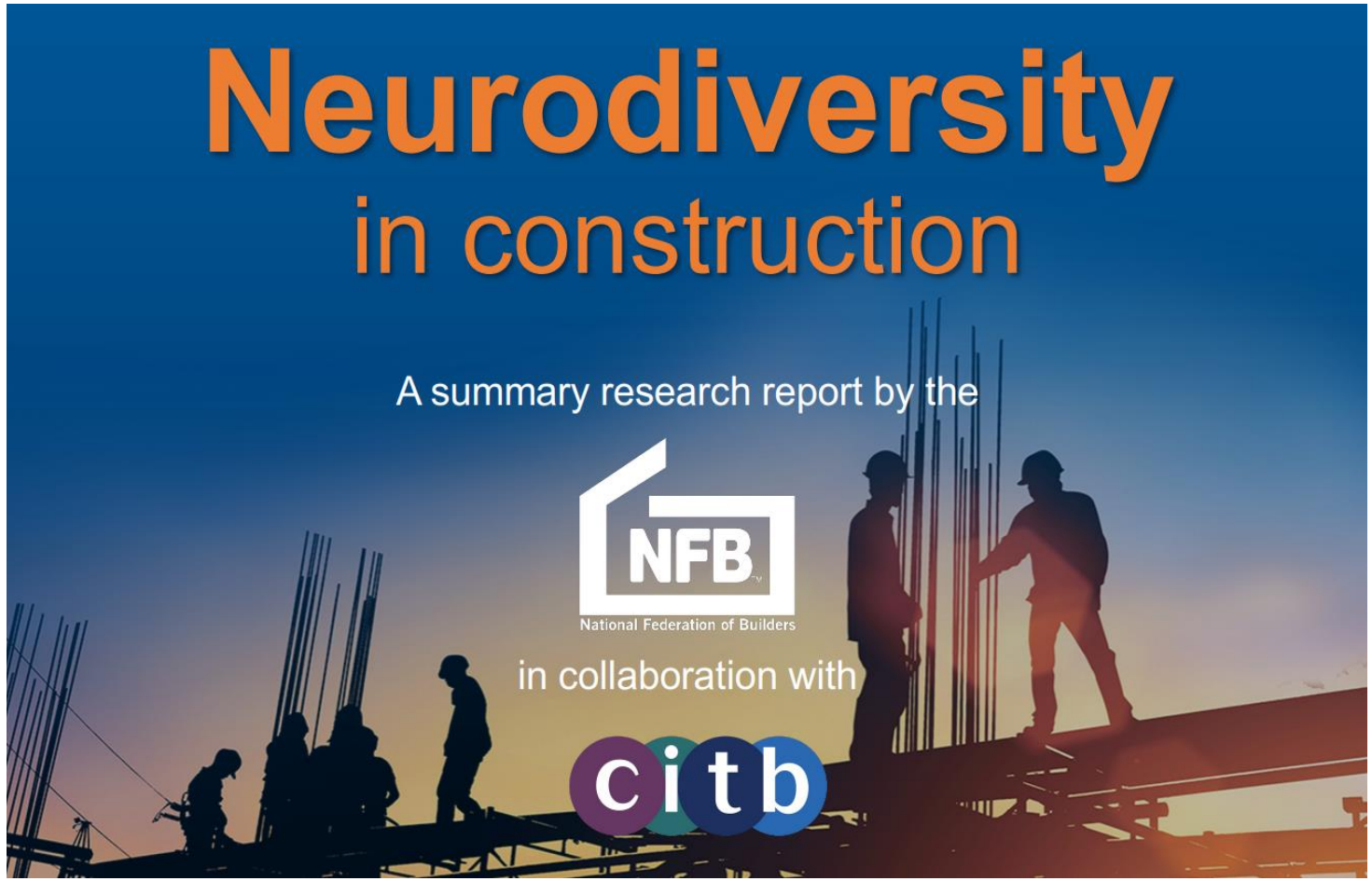
citb

**Delivered in partnership with:**

NFB™
National Federation of Builders

Genius WITHIN

# Research - Why Is It Important?



# The Wider Programme and Why Genius Within?




SUPPLY CHAIN SUSTAINABILITY SCHOOL

**Self paced e-Learning**
Neurodiversity Awareness
8 modules

**Self paced e-Learning**
Neurodiversity For Managers
6 modules




**Neurodiversity Awareness Half Day Workshop**
In-depth look at Neurodiversity in Construction

**Neurodiversity Awareness Lunch and Learn**
Shorter session covering core concepts on Neurodiversity

**Neurodiversity for HR & Leaders Half Day Workshop**
Provides strategies for creating neuroinclusive teams

# Clean Set-Up



**If this training were ideal for you, it would be like what?**



# Session Outcomes

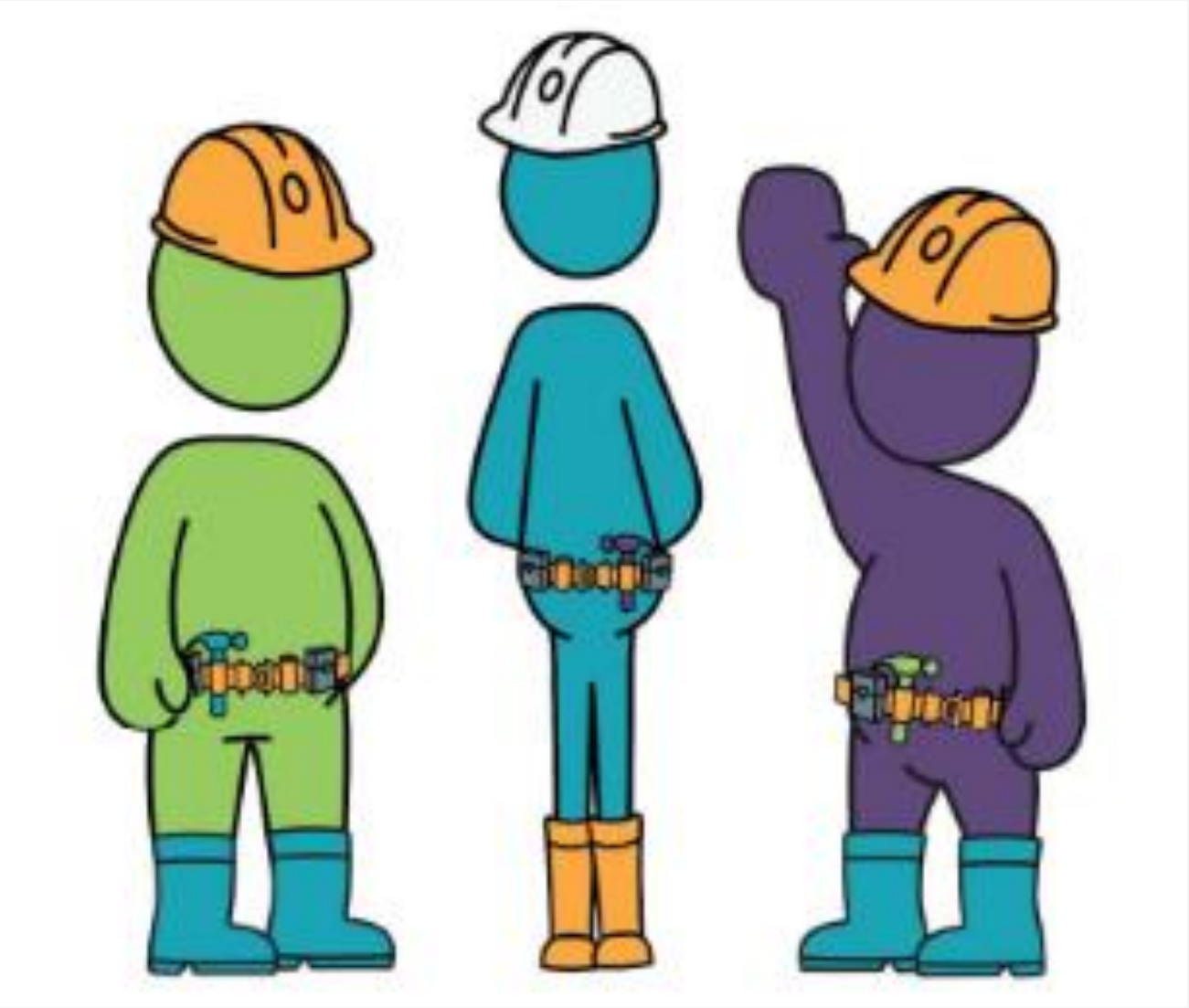


- Neurodiversity in Construction
- What is Neurodiversity?
- Workplace Impact
- Individual Support
- Becoming a Neuroinclusive Organisation

# Five senses

See an elephant...





# What is Neurodiversity?

# Neurodiversity

**Neurodiversity means that there are naturally occurring differences in human neurocognition.**

Most people have **neurotypical** brains.
Others have brains that have pronounced strengths and weaknesses. These can be called **neurodivergent, neurodiverse, neurodistinct**, or they may want to be identified as their diagnosis condition, e.g. "I am dyslexic."

Collectively, we can refer to **neurominorities, neurodivergence**. These terms have replaced neurodevelopmental disorder or specific learning disability as umbrella terms, because they are neutral and don't insinuate ill health.



# Neurominorities

**1 in 4 construction workers** consider themselves neurodivergent




Source: Dr Nancy Doyle, based on the DANDA Chart work of Mary Colley

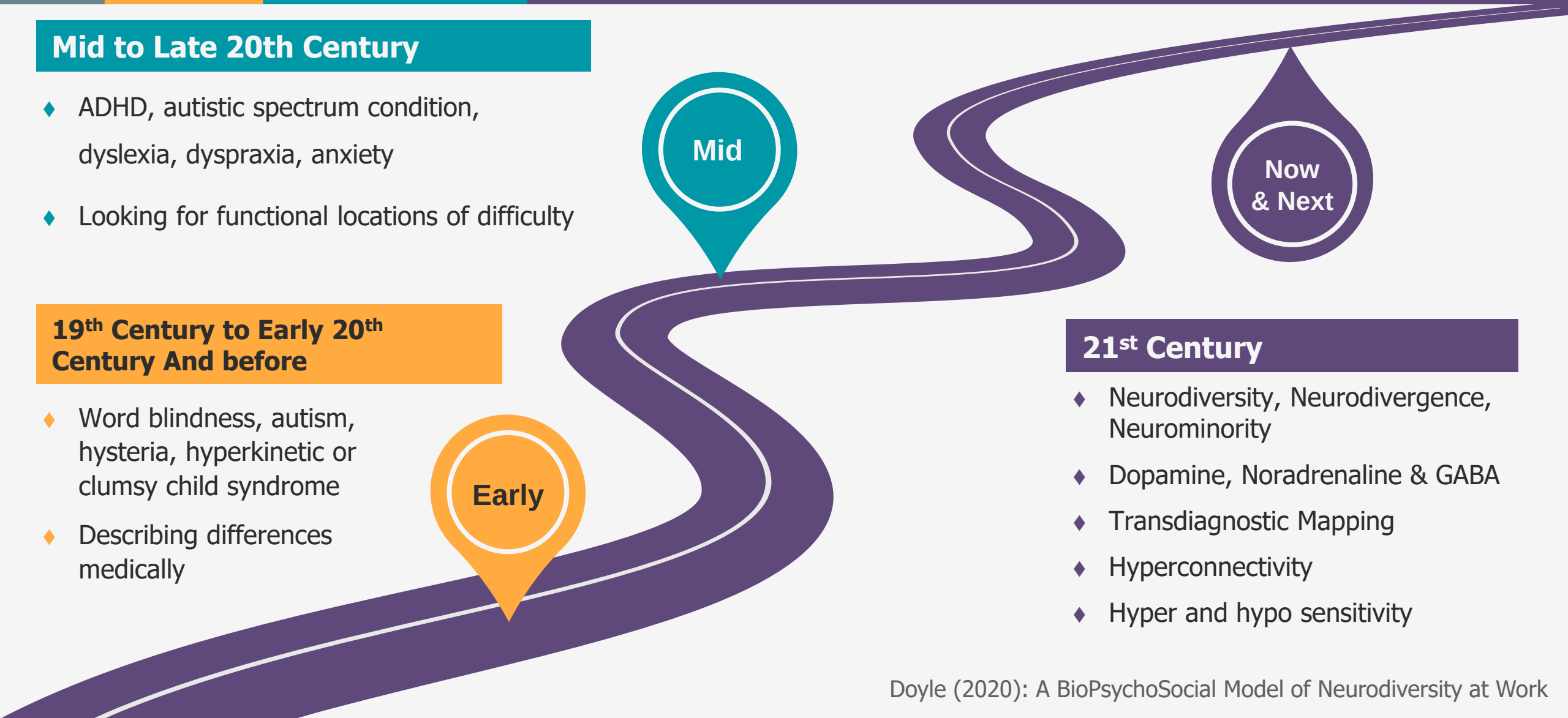
# History & Language of Neurominorities

## Mid to Late 20th Century

- ADHD, autistic spectrum condition, dyslexia, dyspraxia, anxiety
- Looking for functional locations of difficulty

## 19th Century to Early 20th Century And before

- Word blindness, autism, hysteria, hyperkinetic or clumsy child syndrome
- Describing differences medically

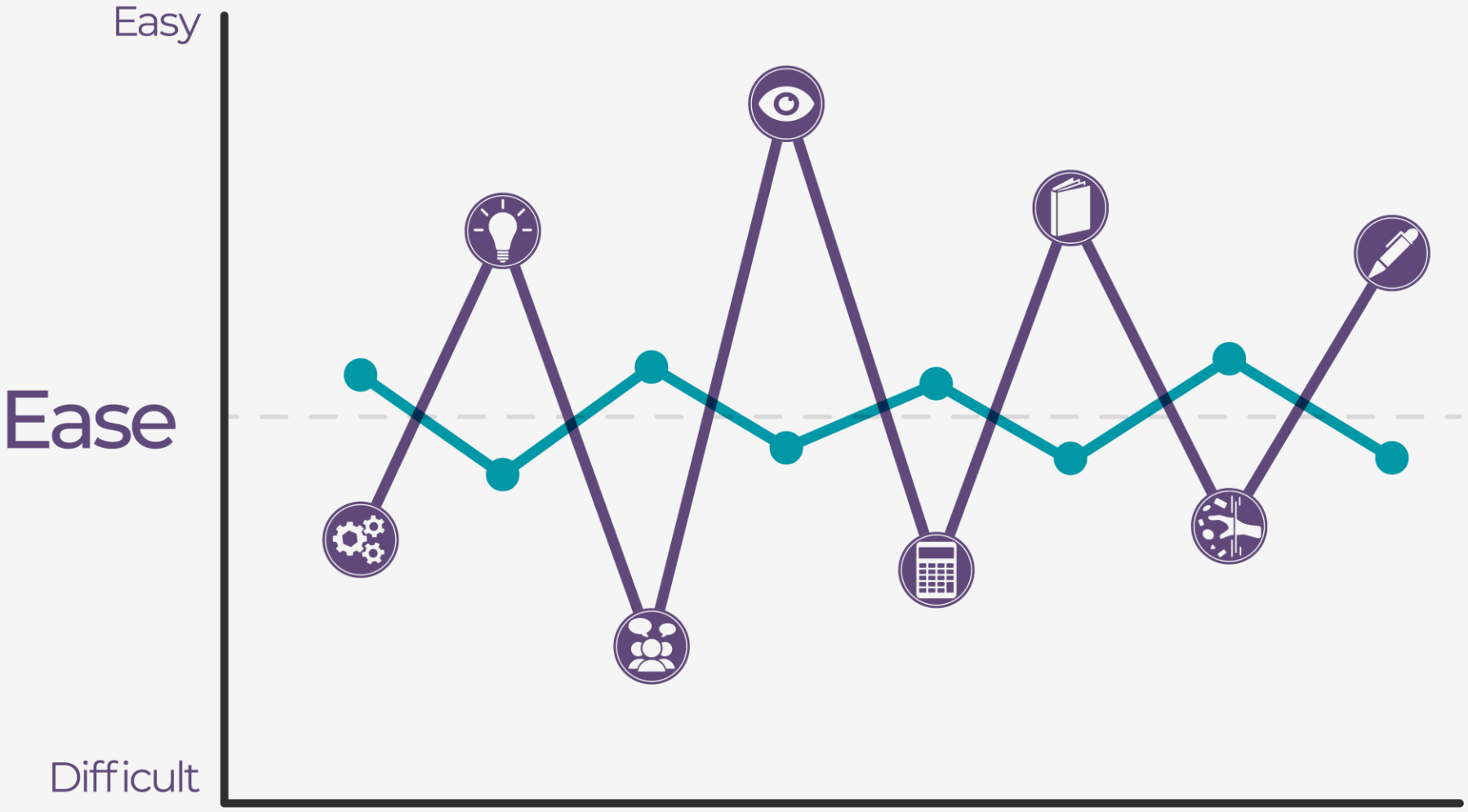



## 21st Century

- Neurodiversity, Neurodivergence, Neurominority
- Dopamine, Noradrenaline & GABA
- Transdiagnostic Mapping
- Hyperconnectivity
- Hyper and hypo sensitivity

Doyle (2020): A BioPsychoSocial Model of Neurodiversity at Work

# The common thread: a spiky profile




**"Specialist"**

Versus

**"Generalist"**

**Thinkers**

Grant (2009) Neurodiversity in Education

# What conditions are included?

| Applied | Clinical | Acquired (transient) | Acquired (chronic) |
|---|---|---|---|
| **Dyslexia** | **ADHD** | Anxiety | Neurological illnesses e.g., long covid, Multiple Sclerosis, Chronic Fatigue |
| **Dyspraxia** | **Autism** | Depression | Brain injury |
| Dyscalculia | **Tourette Syndrome** | OCD | And more….. |
| Dysgraphia | Learning disabilities | Phobias | |
| | | And more…. | |

Weinberg & Doyle (2017): Neurodiversity at Work

# Different Thinking Styles

### DYSLEXIA

Dyslexics are famed for general inventiveness and creativity, can excel at pattern-spotting.

### DYSPRAXIA

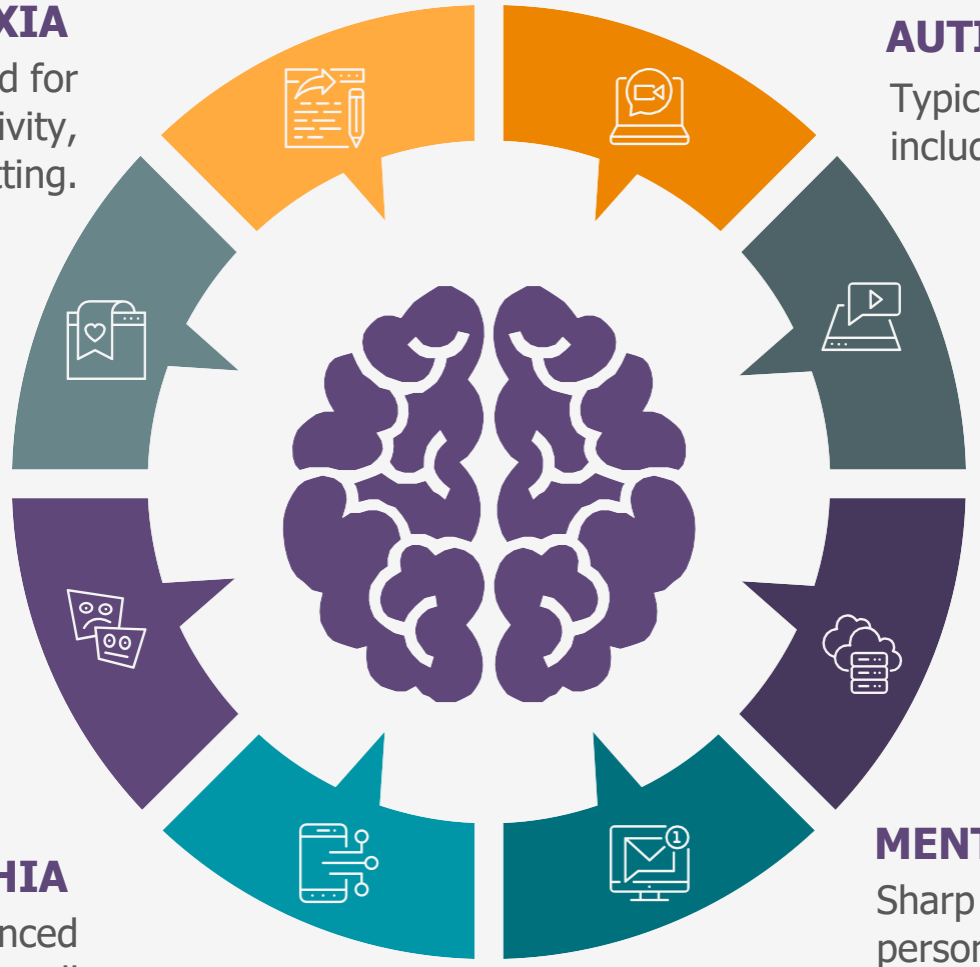
Dyspraxics tend to be good at 'big picture' thinking, pattern-spotting & inferential reasoning. They are often resourceful & determined problem-solvers.

### DYSCALCULIA

Creativity, strategic thinking, practical ability, intuitive thinking & problem- solving are standout strengths.

### DYSGRAPHIA

Strengths include enhanced listening skills, ability to recall oral details, memorisation, & storytelling.



### AUTISM

Typical strengths associated with Autism include problem-solving & analytical thinking.

### ADHD

Insightfulness, creative thinking and problem-solving are strengths often associated with ADHD, with an ability to multitask & take calculated risks.

### TOURETTE SYNDROME

Often creative and energetic, with acute perception. Humorous, empathetic, ompleters & finishers.

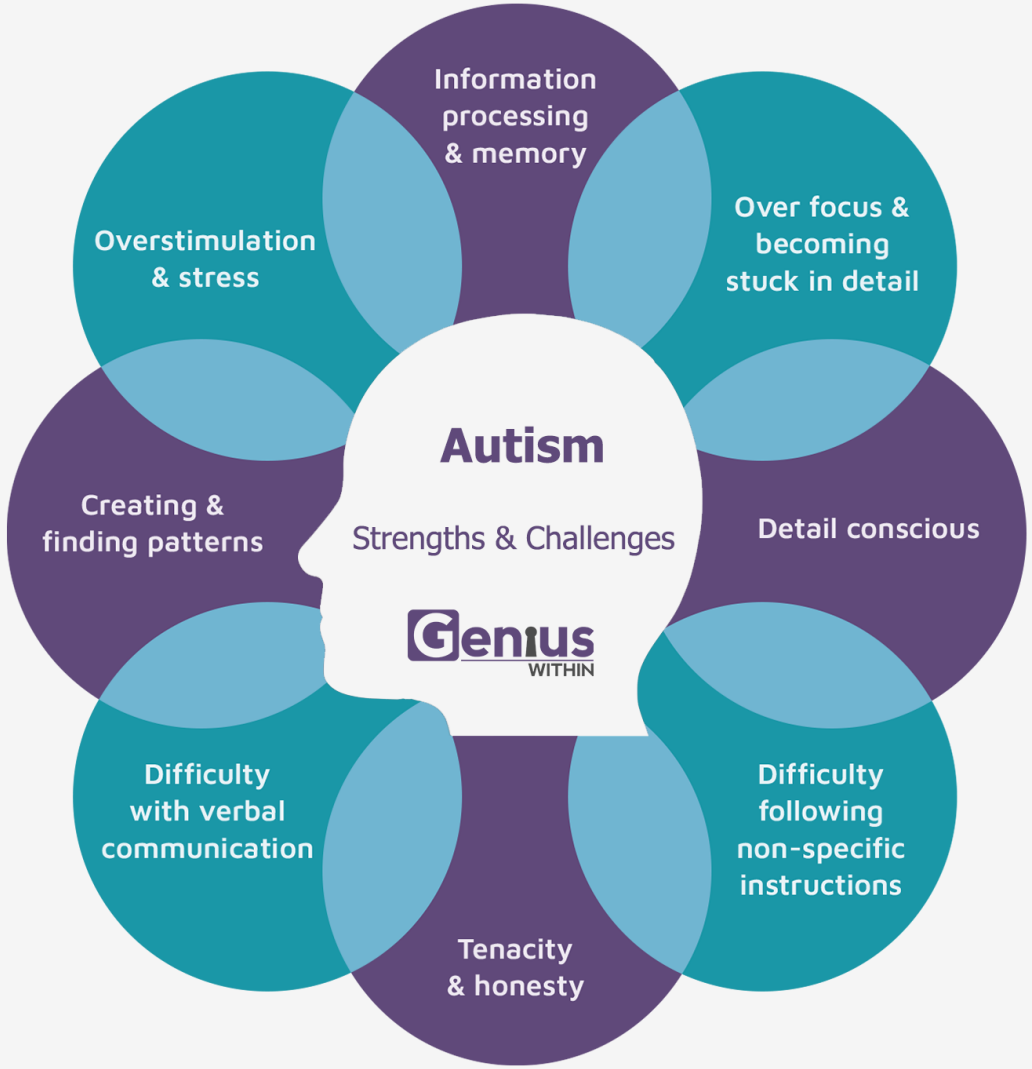
### MENTAL HEALTH

Sharp memory, empathy, personal strength & resilience.

# Autism

Autism affects social communication, language development, flexibility of routine and sensory perception.

**Prevalence ~1-2%**



# Autism

**What people think autism looks like:**

Less autistic — More autistic



**What it can actually look like:**

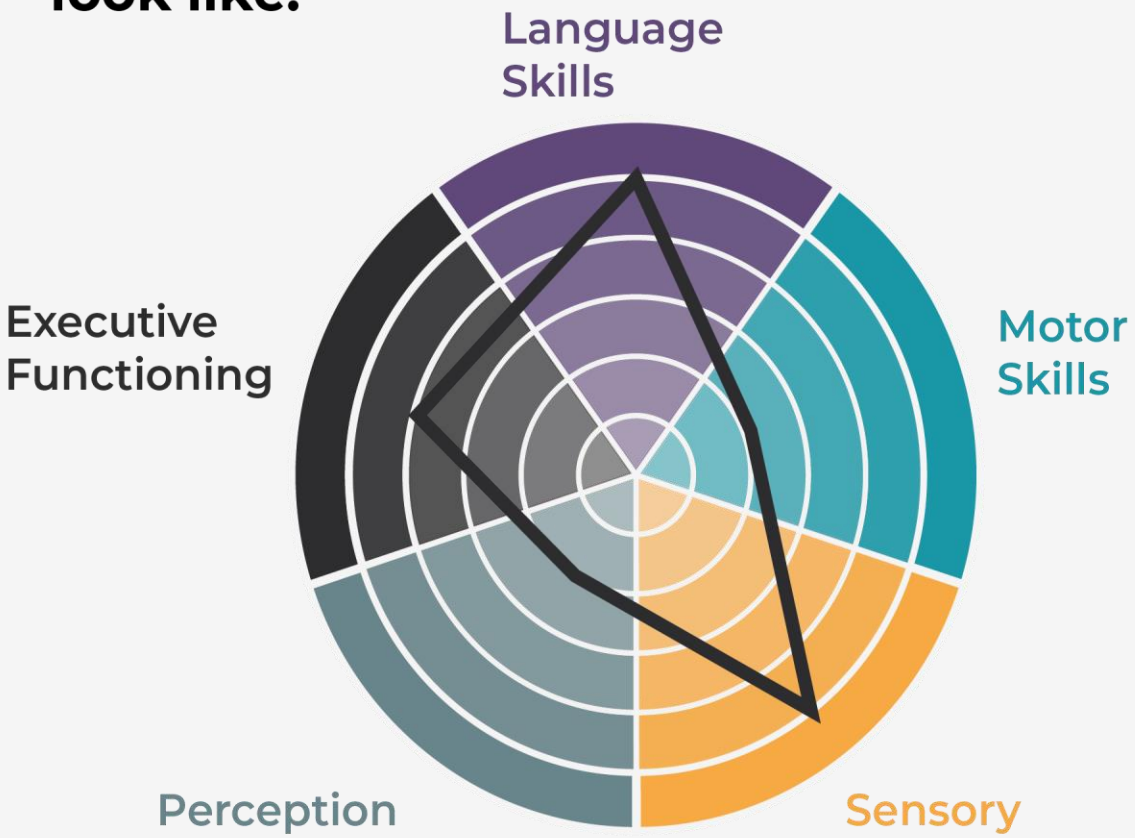
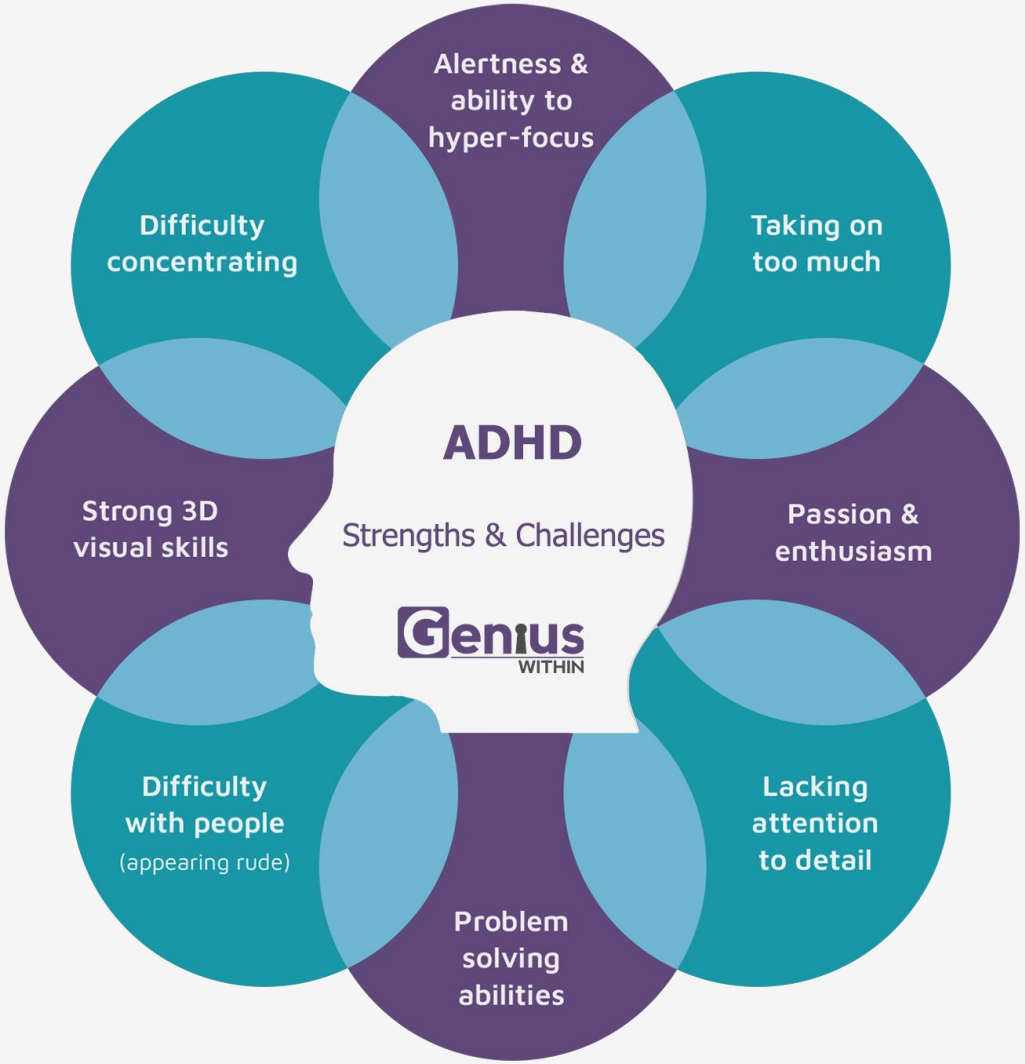



Image based on the highly creative work of artist Rebecca Burgess @theorah

# ADHD

ADHD stands for Attention Deficit Hyperactivity Disorder, although not everyone has the hyperactivity part.

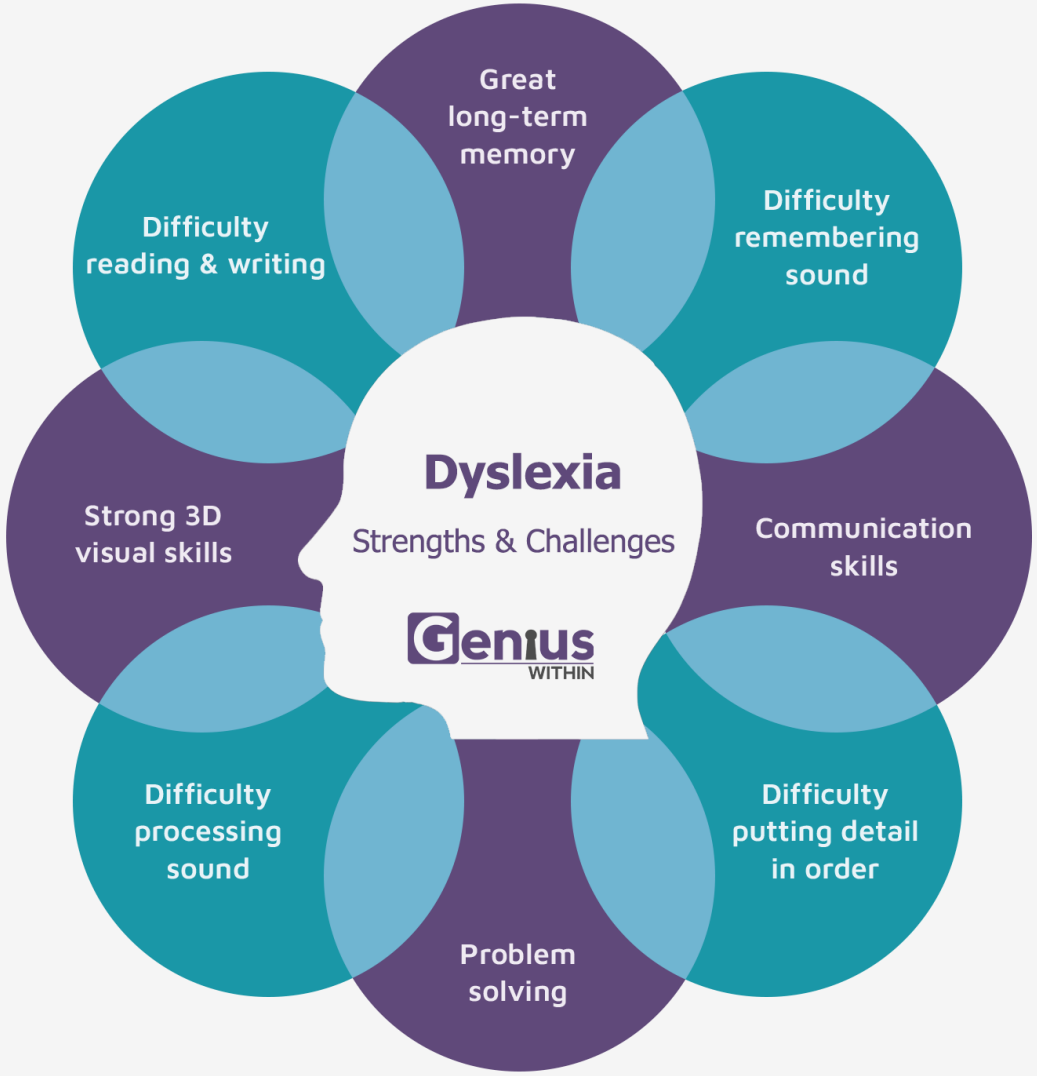
**Prevalence ~5%**



# Dyslexia

Dyslexia literally means "difficulty with words" but this a symptom and could come from a difficulty processing sounds or with memory and learning.

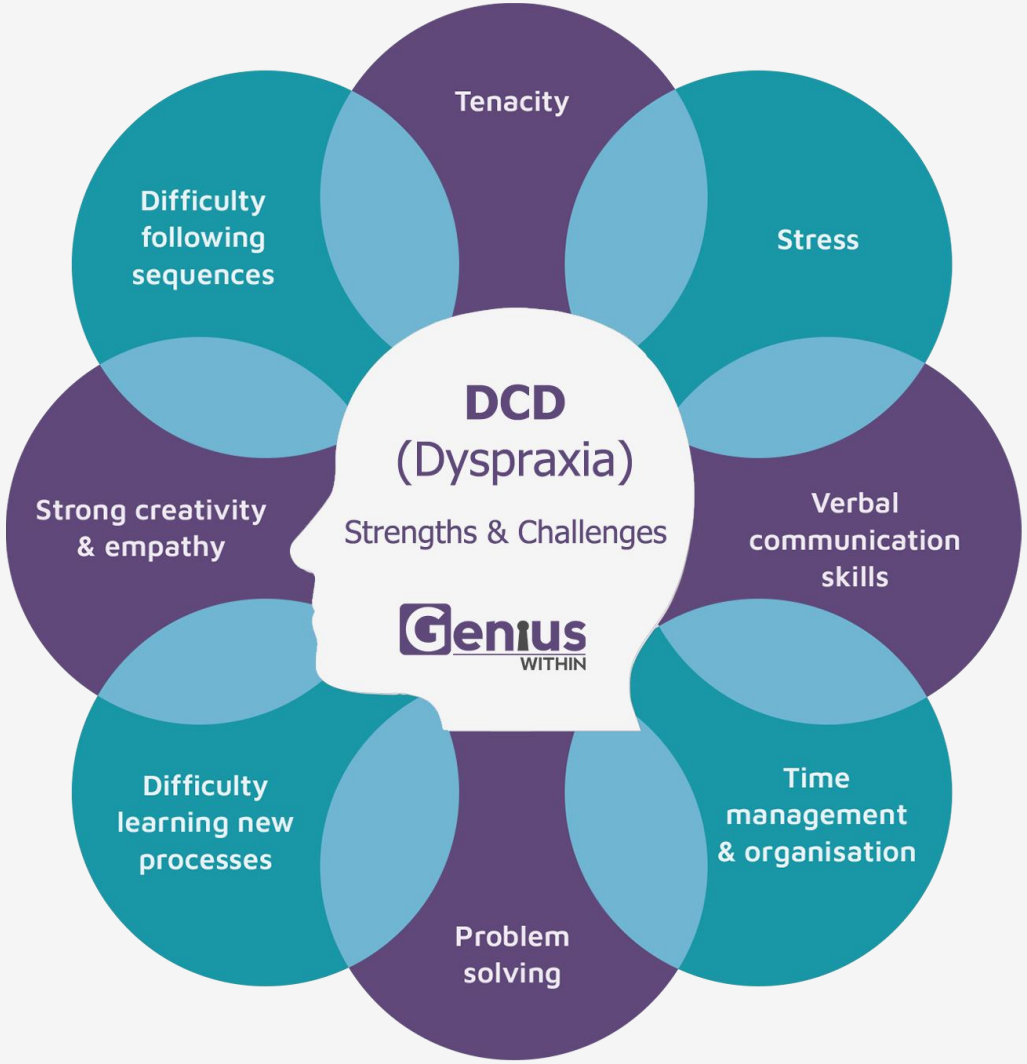
**Prevalence ~10%**



# Dyspraxia

Dyspraxia literally means “difficulty with movement” and can affect fine motor coordination or gross motor coordination and balance. Again, a symptom and might come from many neurological sources

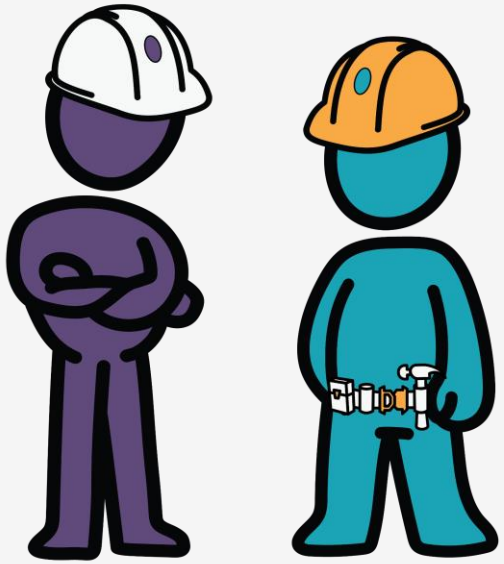
**Prevalence ~5%**



# Reflection

How might the **strengths** present in a construction-based role?

How might the **challenges** present in a construction-based role?





# Intersectionality



Girls less frequently diagnosed, diagnosed later in life so miss scaffolding in adulthood; misdiagnosed with anxiety, depression and eating disorders

People marginalised by poverty, race, or ethnicity, are more likely to be missed as neurodivergent and instead treated as wilfully disobedient or criminal





Higher rates of neurodivergence in transgender communities

Intersectional marginalisation leads to double and triple masking, which leads to higher rates of burnout for neurominorities





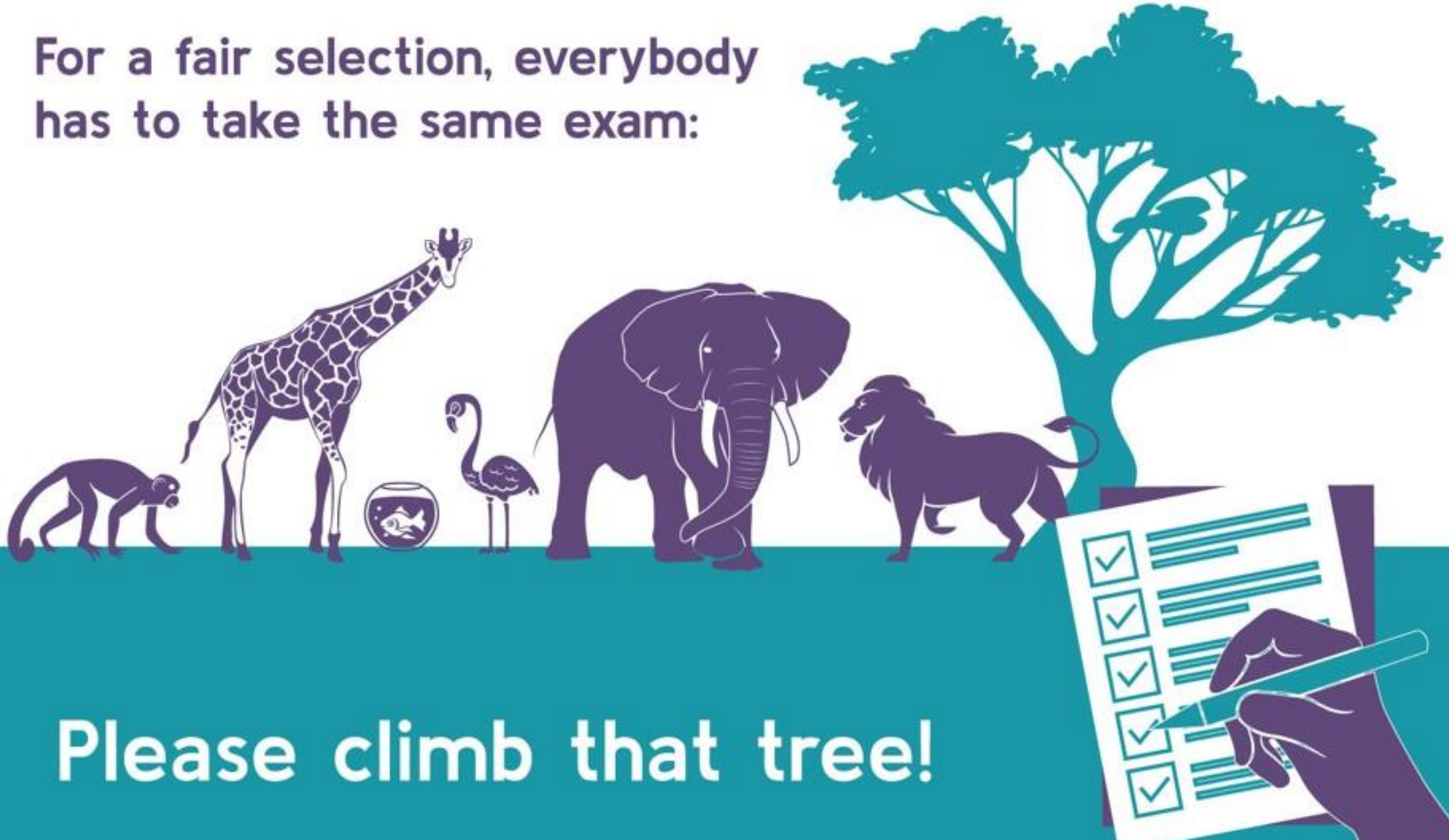





# Workplace Impact



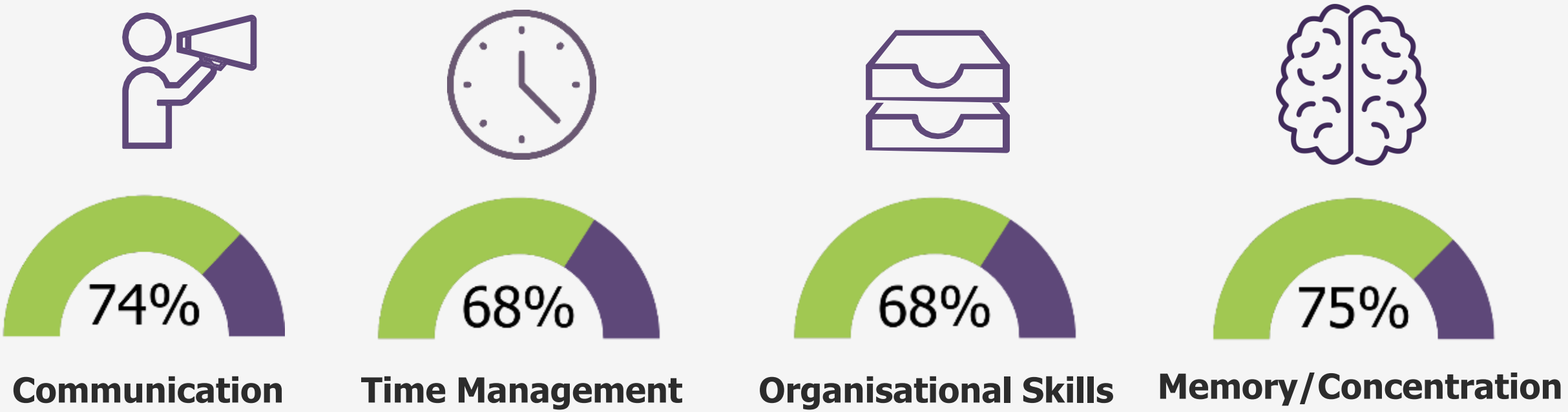
For a fair selection, everybody has to take the same exam:



Please climb that tree!

# The Common Theme:

## Executive Functions




Representing the percentage of individuals (N=409) requiring support in key areas of challenge, Doyle % Bradley 2022

# Legal definitions

**A person has a disability if they have a physical or mental impairment that has substantial and long term (12 months+) adverse effect on their ability to carry out normal day-to-day activities.**

- **There is no need for a diagnosis, it is the effect, not the cause, or the impairment that matters…**
- **…employers are required to make reasonable adjustments to enable employees meet their potential.**

**The Equality Act 2010**

# Case Study

James is a highly skilled **site manager** known for his **exceptional ability to interpret construction drawings and creatively solve problems on-site**. His talent for thinking outside the box has helped his team overcome numerous challenges, often saving time and costs for the project. However, James has **dyslexia**, which makes certain aspects of his role particularly challenging.

- He struggles with completing **daily diaries**, which require detailed written or typed records of site activities.
- **This task takes him longer than his peers and sometimes delays the project's reporting**.

James approaches you, his line manager, and explains:

- Writing these diaries has become a source of stress, but he wants to ensure it doesn't affect the team's performance.

**Question**: How would you support James in overcoming this challenge? What tools, systems, or adjustments could you implement to help him?

# Case Study

Dave, a newly hired site supervisor, is a hardworking and skilled professional. However, his supervisor, John, notices that **Dave often appears restless, struggles to stay focused on tasks, and seems overwhelmed in noisy environments with heavy machinery, drilling, and other loud construction activities**. Understanding that noise sensitivity, John decides to take proactive steps to help Dave thrive.

**Discuss in your groups:**

- How can construction teams implement practical adjustments to create a more supportive and inclusive environment for workers who face challenges such as sensory overload or difficulty focusing on tasks?
- What specific strategies would you recommend to help someone like Dave thrive on-site while maintaining productivity and safety?





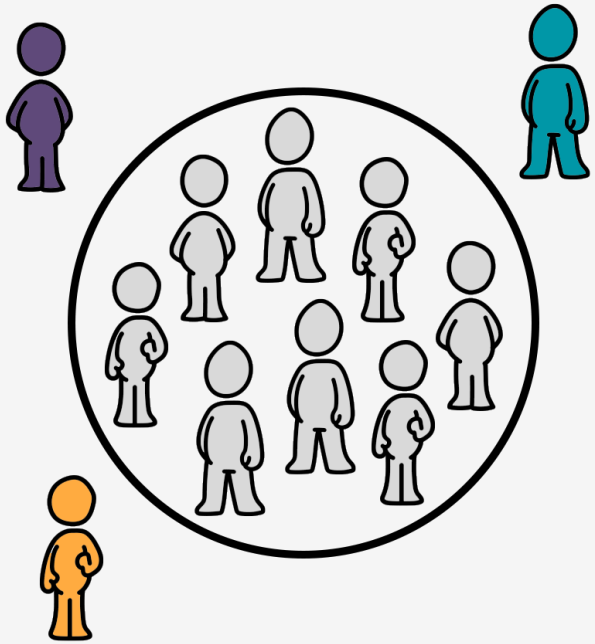



# Individual Support



# Levels of inclusion

**Exclusion**



**Compliance:**
individual inclusion



**Deliberate:**
Inclusion in teams



**Systemic:**
inclusion for all



# Direct discrimination

- Making assumptions about capability and treating differently as a result
- Failure to make reasonable adjustments
- Victimisation or harassment



**We are all different – so the best support is individualised**

# Indirect discrimination



Here the spectators are being treated equally



This shows equitable treatment of the spectators



This image shows that everyone attending will be able to see the game.

# Supporting colleagues

**Discussion:** How can we support each other to work at our best?



# Adjustments – what works?



**Schedule Flexibility**



**Literacy Coaching**



**Assistive Technology**



**Working Environment**

**Executive Functions Coaching**
Memory, concentration, time management, etc.



**Formal training**
In house or commissioned



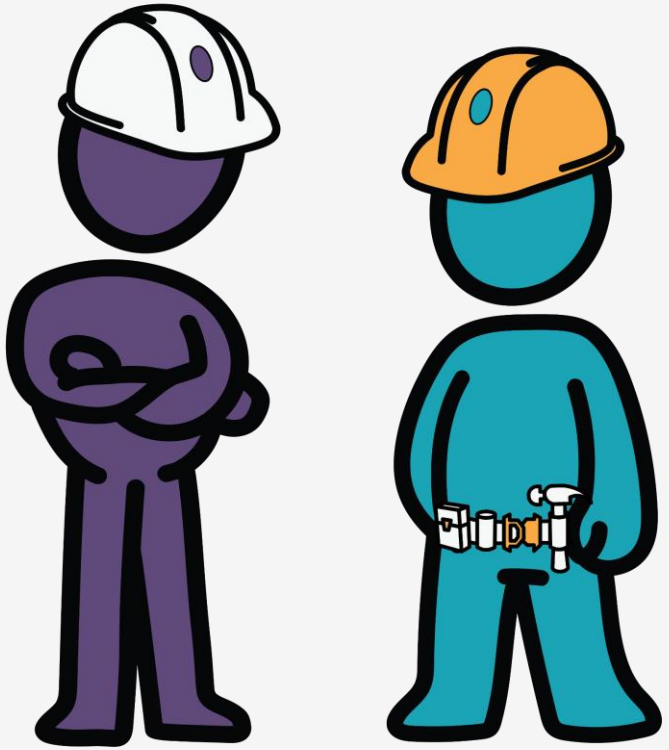
**Supervisor Input**
E.g., regular specific feedback, co-coaching



Doyle 2017 & 2019

# Adjustments – Did you know…

**The vast majority of adjustments can be implemented for little or no cost!**



Extract from Psychology at work: Improving wellbeing and productivity in the workplace, written by Dr Ashley Weinberg and Nancy Doyle, 2017

# Access to Work: Funding for support

Access to Work is a publicly funded employment support programme.

It can cover adaptations to premises & equipment, special aids, strategy coaching, & awareness training for your colleagues.

Provides practical & financial support to disabled people or those with a long-term physical or mental health condition.

Neurodiverse conditions are protected characteristics under the Equality Act 2010, making neurominorities eligible for support.

Department for Work & Pensions

www.gov.uk/access-to-work

# Access to Work: Funding for support

Upon application, you can expect to receive an assessment within a few weeks.

Your employer can then purchase equipment or services & claim the funds back against the grant.

Access to Work will provide a grant value.

100% of the cost of coaching & awareness is covered.
Employers may need to contribute toward equipment or software.

Department for Work & Pensions

www.gov.uk/access-to-work







# Becoming a neuroinclusive organisation



# Workplace Universal Design

Avoiding structural exclusion by focusing on performance output, not input

Adapting standard wellbeing services to support NM needs

Optimising success with inclusive delivery




Ensuring all candidates can perform at their best during the process

Include terms & conditions of employment to increase access

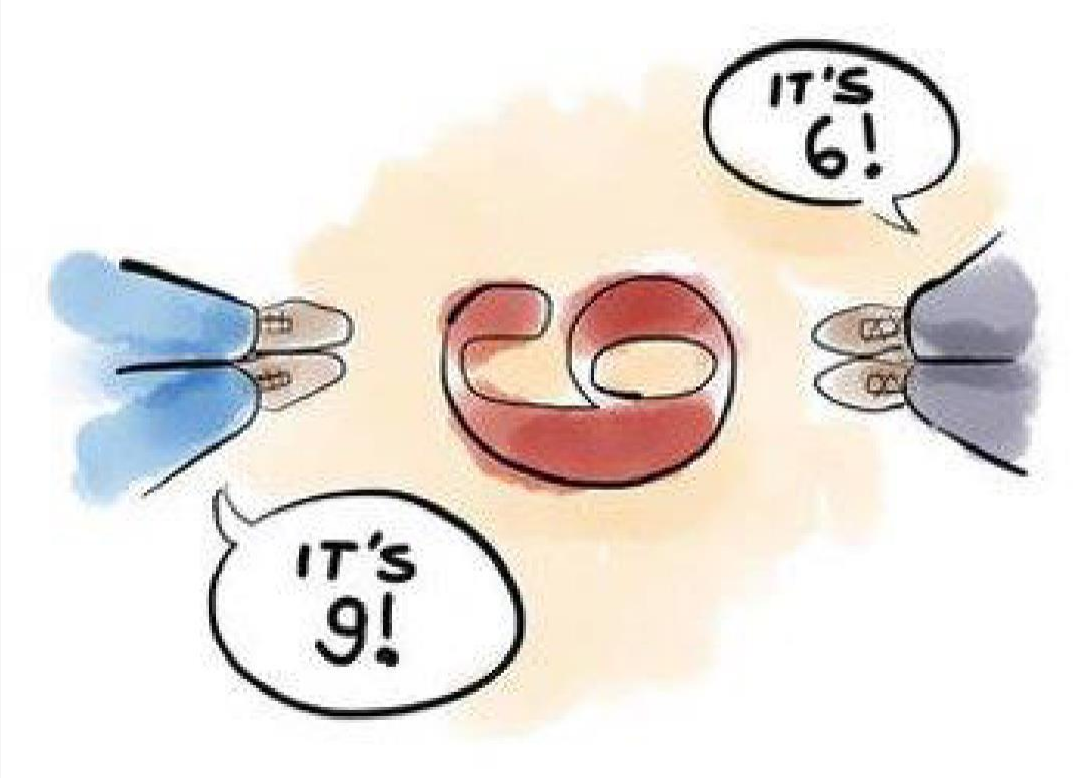
Embedding inclusion in standard

Doyle & McDowall (2021)

# Neuroinclusive Communication

## Communication

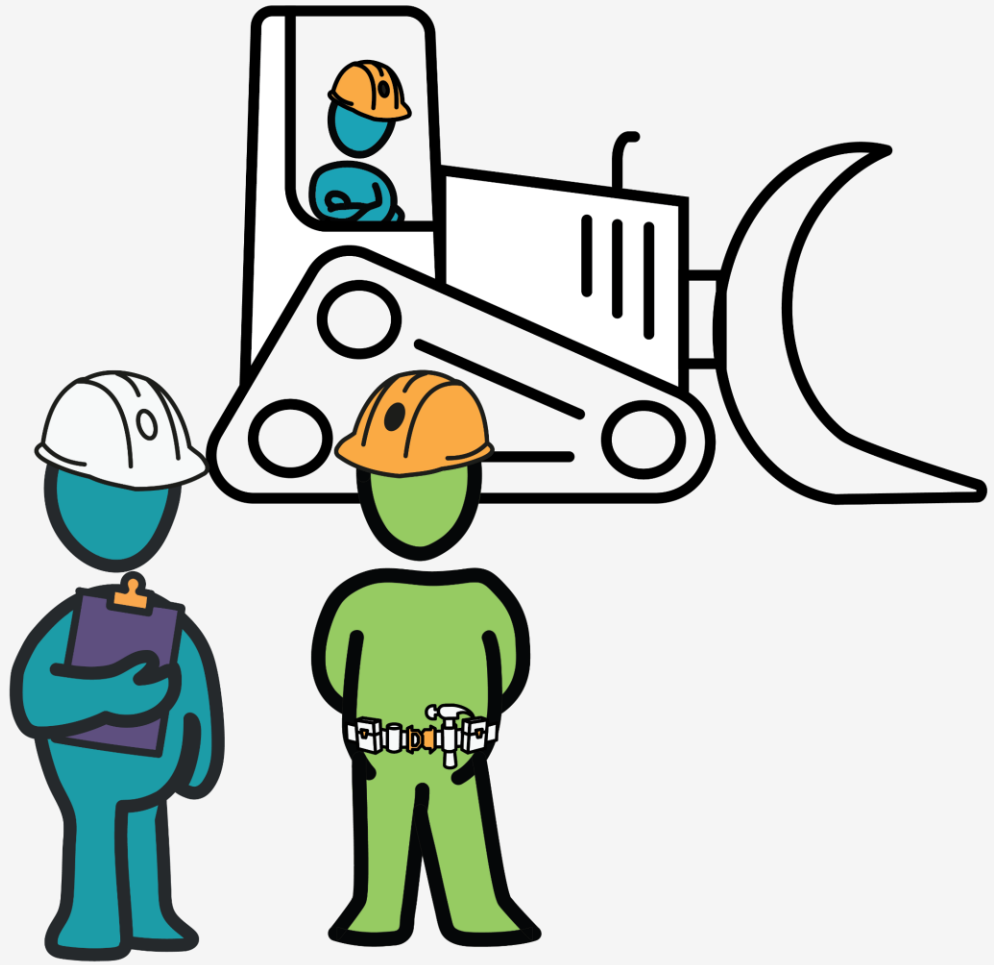
- Avoid written and verbal information when loud use of hand signals or radio communication
- Provide clear, concise, and preferably visual instructions with examples
- Be specific with instructions and make it clear people can ask questions
- Provide the wider picture, advance notice and implement an early warning system to flag any concerns or issues on projects at an early stage to allow for intervention
- Explain the hidden rules break down tasks into a checklist / to do list / schedules, listen without judging and blaming



# Neuroinclusive Meetings

## Meetings

- Provide a quiet meeting space with processing breaks avoid making assumptions
- Offer a verbal or written agenda before meetings help raise awareness to everyone else on site through toolbox talks, informal discussions or more formal face-to-face training sessions
- Give alternatives:  E.g., updates via 1:1, chats for questions, Buddying and mentoring for personalised support and guidance.
- Be explicit when meetings are critical: E.g., safety critical learning



# Neuroinclusive Environment

| Environment |
| --- |
| ❖ Awareness of noise, light, smell, colour which can overwhelm |
| ❖ Seek to understand when employees are at their best |
| ❖ Allow people to have quiet time, use meeting rooms or standing against a wall |
| ❖ Communal white board to provide additional space for memory aids and hold crucial information |



# Reflection




What are you going to do **differently** as a result of this awareness session?

**Inclusion** is a moral, social & economic imperative.

We all lose when **diverse human potential** is squandered.