

# Engage

## Teacher Conference

### **Beyond one-size-fits-all: a teacher panel on accessibility in the classroom**

Hear tried and tested strategies from teachers to break down barriers in STEM for young people with SEND.

**Carolyn Maston**  
Armley Grange School

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The Mosslands School

**Roopa Shukla**  
Herrick Primary School

**Catherine Davies**  
The British Science Association

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## Welcome, please be aware:

- Talks are recorded
- There will be time for questions at the end
- You can send messages in the chat or raise your hand.



# Top tips from teachers: myth busting

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**MYTH:** Learners with SEND can't access practical science.

**REALITY:** The opposite is often true – they are most motivated by practicals.

**MYTH:** There are too many different needs in my class to be met.

**REALITY:** It is likely that some strategies will support many/all learners such that each needs may not need to be treated differently.

**MYTH:** Students with SEND can't achieve at science.

**REALITY:** High expectations for all students should be the norm. The way you design and run the lesson/practical is what needs modification, not expectations

# Top tips from teachers: inclusive lessons

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- Make it **meaningful** :
  - Students should know *why* they are doing the activity.
  - Make links to their lives.
- Be clear about the **focus** of the lesson.
- Focus on just **one science skill at a time** (e.g. *just* reading a thermometer, not reading the thermometer, recording temperatures in a table, *and* graphing values).
- **Chunk** the material to avoid overloading with words and instructions.
- **Pre-teach** vocabulary and/or key equations.
- Use **visuals** to demonstrate.
- **Be flexible** about how students record findings and demonstrate learning (e.g. video or oral presentation, fun quizzes, think-pair-share, etc.).
- **Thoughtful grouping/pairing** of students that will work well together.
- **Continuous formative assessment.**

# Top tips from teachers: practicals

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- **Slow practicals:** students mirror/body double a practical.
- Do practicals together as a group with equipment and instructions collected from the front at the same time, **one step at a time.**
- Use **visual instructions** (AI can help generate these quickly).
- **Display** the practical and visual safety rules ahead of time in the classroom.
- **Split class** into small groups for higher-risk practicals.
- Focus on the **most important safety advice** (avoiding a long list of 'don'ts').
- Use school CPD time to **train TAs and support staff** on use of lab equipment.
- Schedule practicals when more support staff is available.
- Consider if practical can be done at **microscale.**
- **Consistent positioning of equipment** in the room (e.g. beakers always on the same bench).

# Top tips from teachers: further reading

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- Quality First teaching
- The 5-a-day approach
- Model expectations for longer written work with I do, We do, You do

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## Thank you

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