

Growth Mindsets.

How you can help your children to achieve their potential in maths.

Let's begin with a quick maths test...

- In the middle of each table are some resources. Please collect:
- 1 piece of squared paper
- 1 pencil
- 1 ruler
- 1 protractor

You will have 12 minutes to complete the test and we will use the results to put you into two groups for the remainder of the session: anyone gaining 75% or over will work with Miss Harper and the others will work with Miss Collins.

Ready?

How do children react in a similar situation?

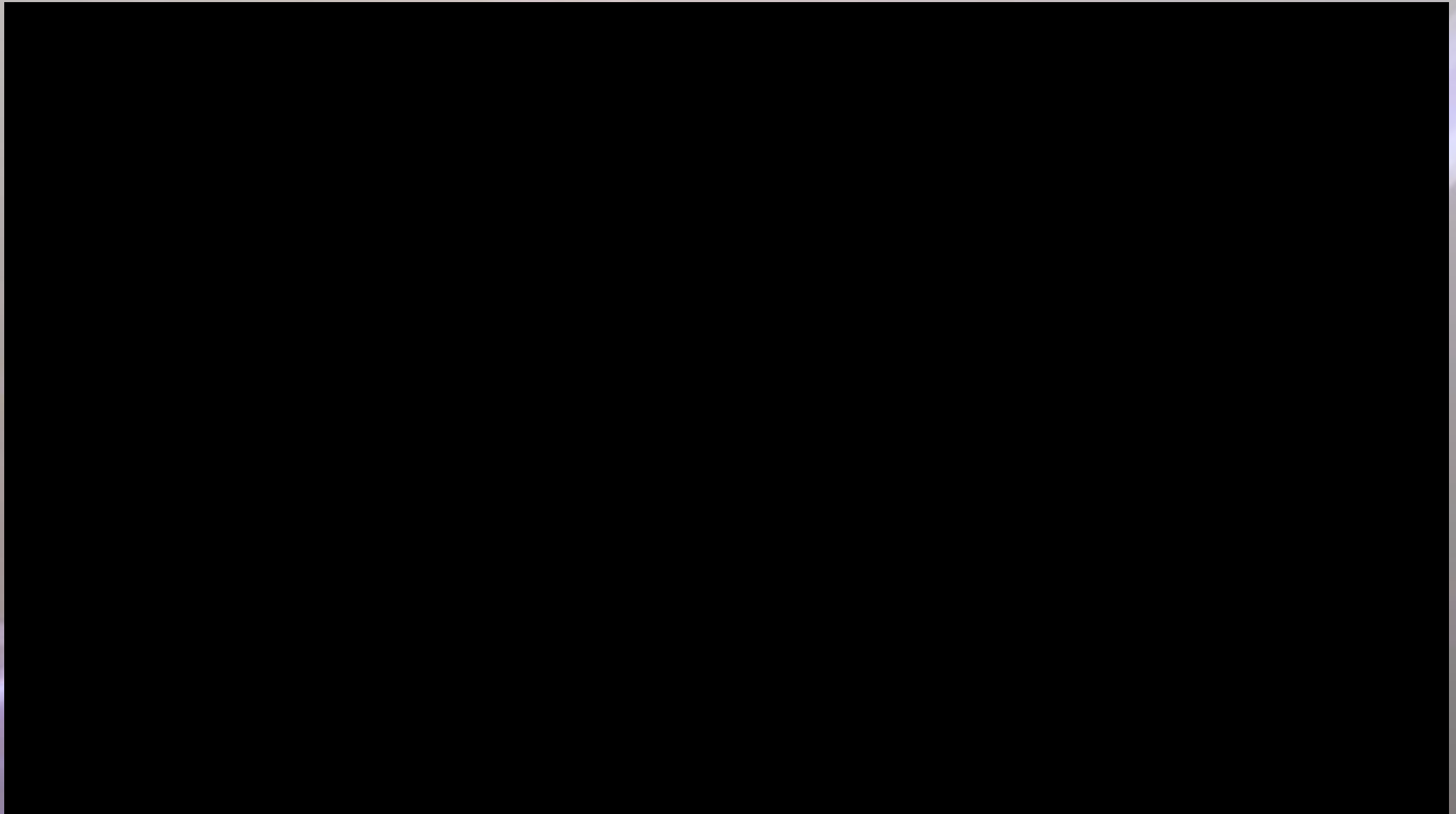
Some children:

- Have a go.
- Are relaxed about the situation (and are therefore able to think clearly).
- Try their best.
- Don't treat the result as a reflection of their intellectual ability.

Some children:

- Panic / cry / avoid attempting the task.
- Don't try ('I can't fail if I haven't tried').
- Try to work through it as quickly as possible so they seem clever.
- Treat the result as a reflection of their intellectual ability.

Why do different children react in different ways?



We now know the messages we give children can make a big difference to their performance.

- Researchers have found that when parents revealed they were not good at maths in school, their children's achievement declined almost immediately (Eccles & Jacobs, 1986)

- In America, levels of anxiety among primary teachers could be used to predict the achievement of their pupils (Beilock et al., 2009). When children found maths hard, teachers with maths anxiety tried to be comforting : "Don't worry, you can do well in other subjects." We now know such messages are extremely damaging.

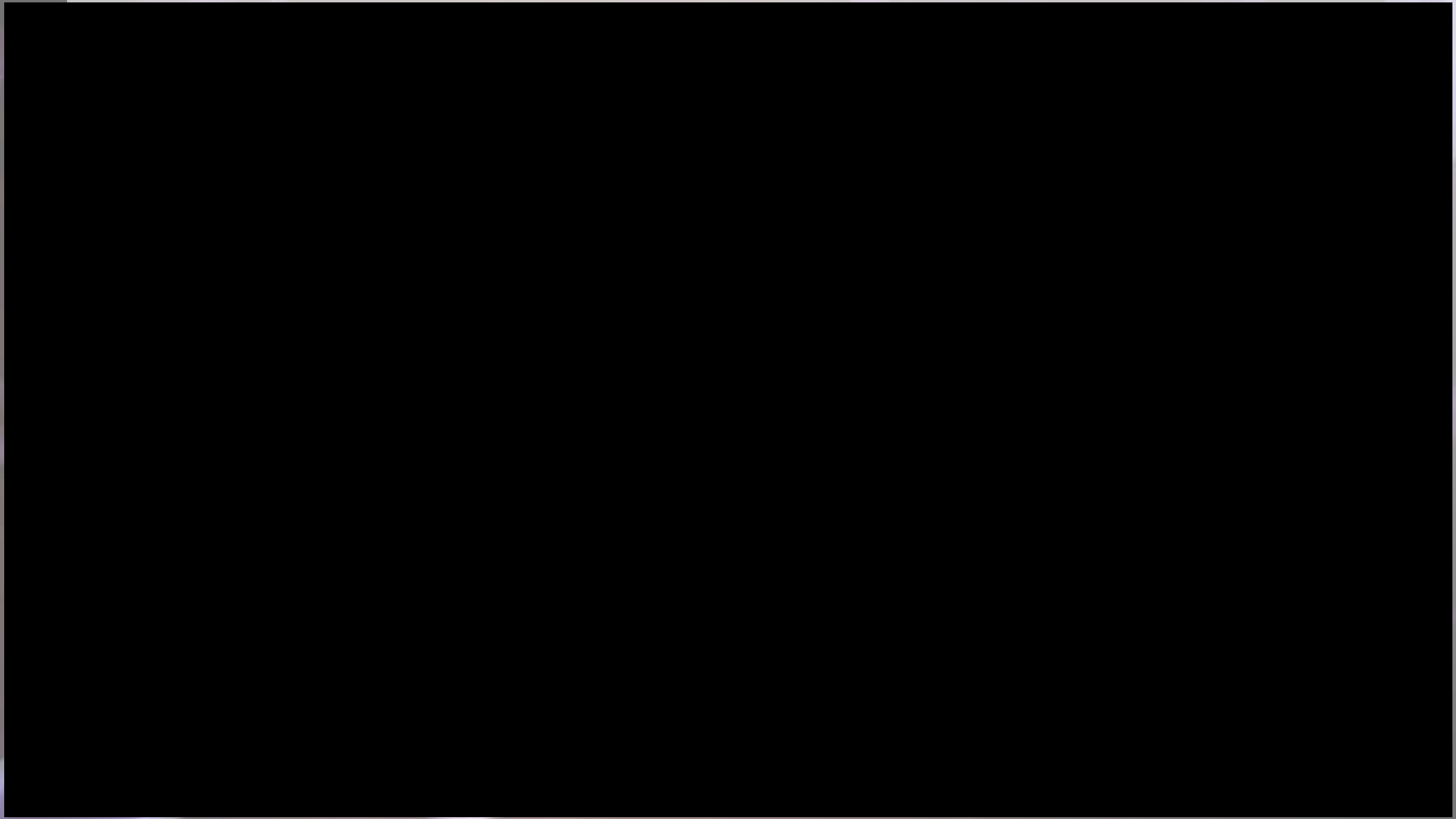
How we can improve the messages we give our children.

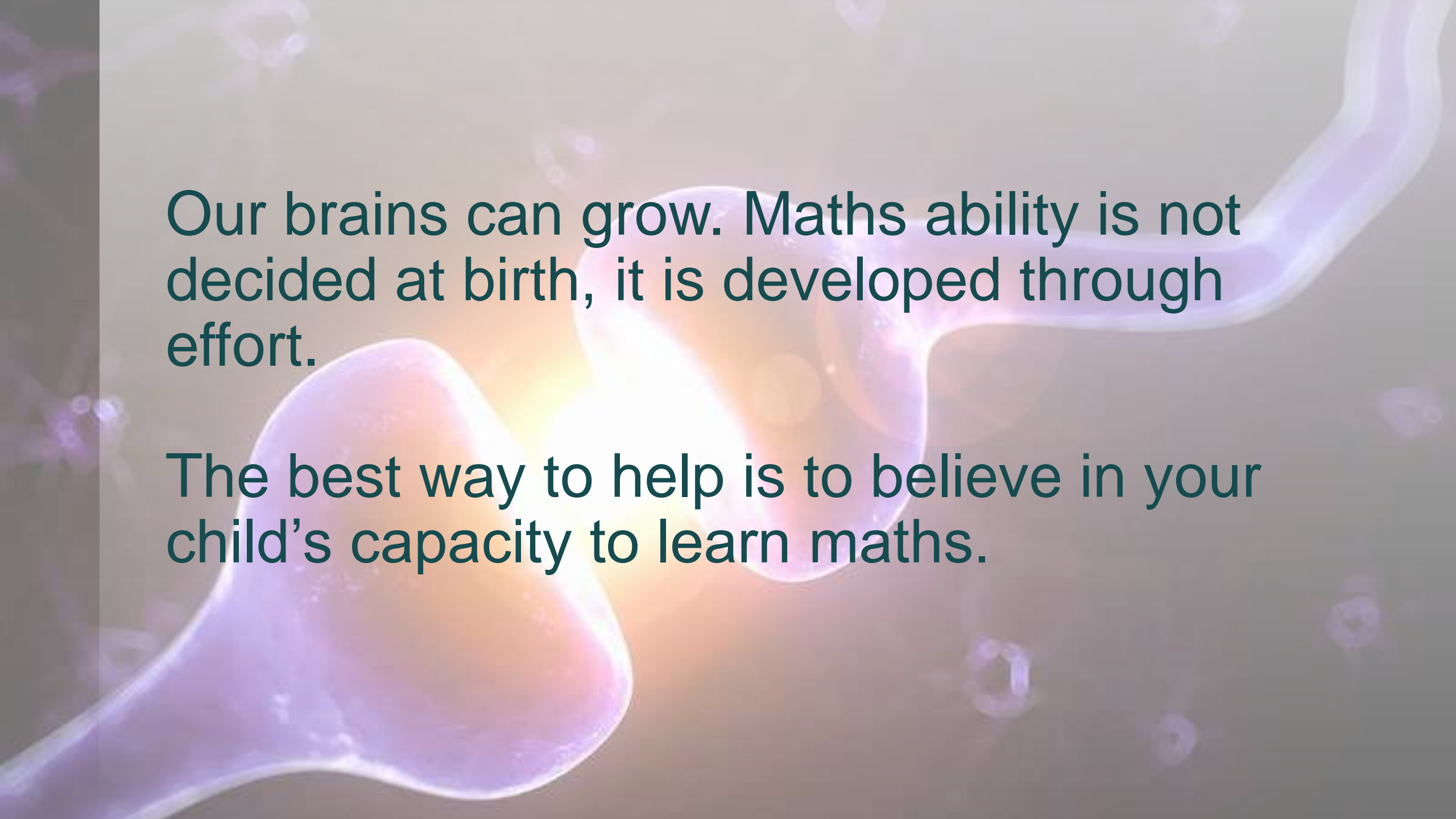
Instead of:

- “Wow, you’re really clever!”
- “Don’t worry, I was never good at maths either.”
- No, you’ve got that wrong.

Try:

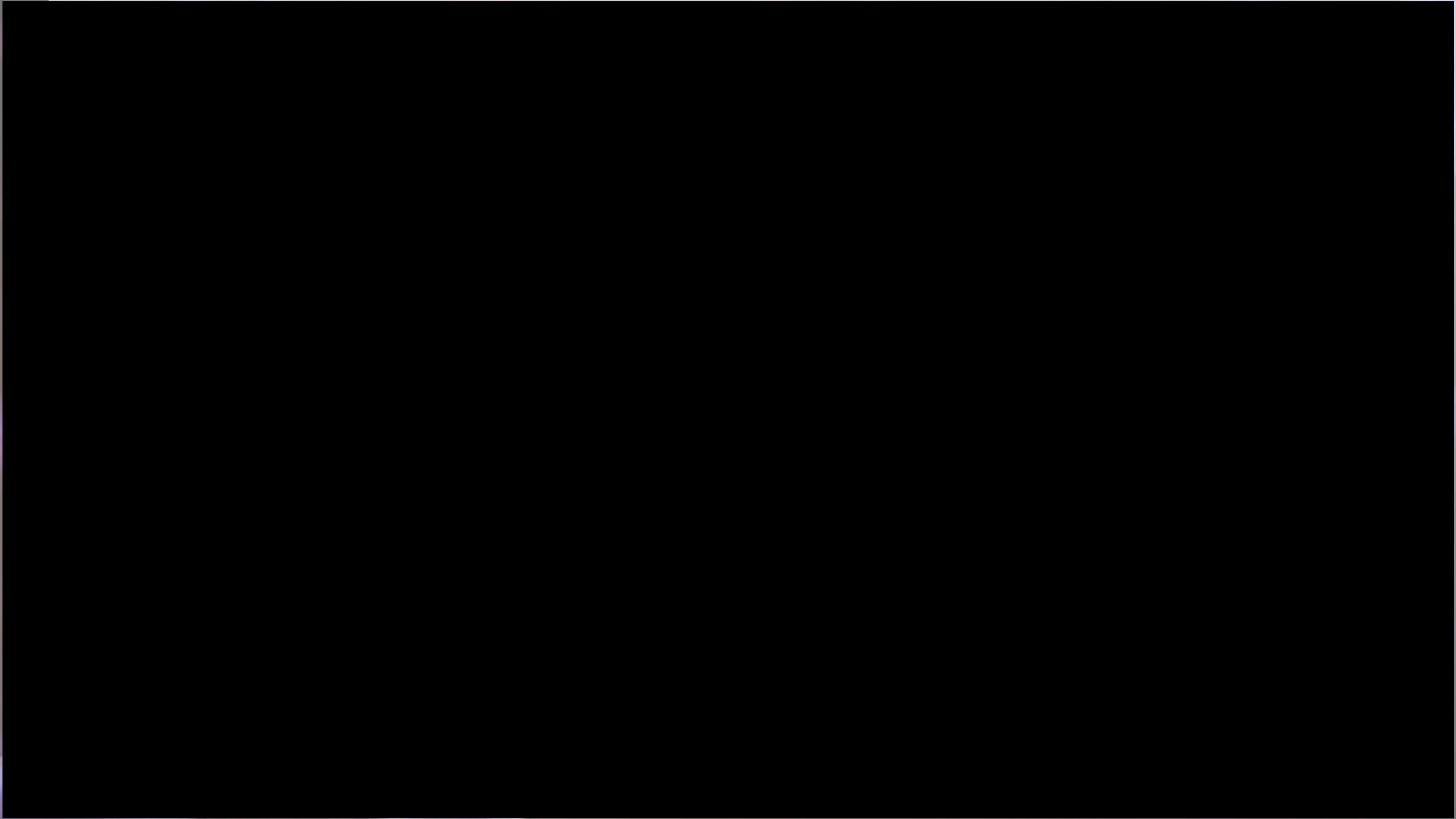
- “You worked really hard on that.”
- “Maths can sometimes be hard but with a bit of effort I know you can do it.”
- “Tell me what you were thinking here.” (There is always some logic within a mistake that you can acknowledge.)





Our brains can grow. Maths ability is not decided at birth, it is developed through effort.

The best way to help is to believe in your child's capacity to learn maths.



Above all, our children need to feel that it is safe – even good – to ‘fail’ or make a mistake. They need to know that it isn’t a reflection of how ‘clever’ they are but instead is a natural, desirable part of learning. The latest research shows that mistakes allow our brains to grow. Additionally, children who are unable to cope with mistakes and ‘failure’ are going to find it difficult to cope with life.

