

# Maidwell Primary School



**You have a certain  
amount of intelligence  
and that can't change**



# Fixed mindset?

Those who believe they are born with a certain amount of intelligence and that is that for the rest of their lives

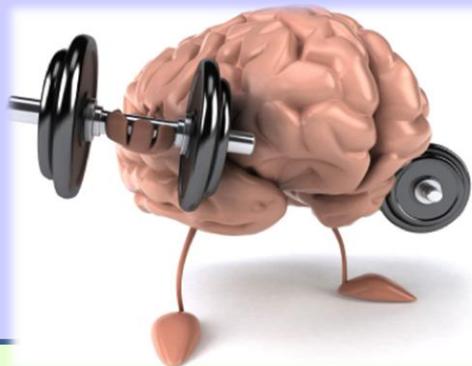


# Growth mindset?

Those who know that intelligence is not fixed and that you can, in effect, 'grow' your intelligence



We now know that the brain can be developed like a muscle, changing and growing the more it is used. The brain grows new cells when we are learning new information and skills.



Research into the brains of London taxi drivers (*Woollett & Maguire, 2012*) discovered that the huge amount of memory they had to use to learn 'The Knowledge' – that is, every street in inner and outer London – resulted in a slightly enlarged area of the hippocampus. These drivers could also memorise other things easily as a result of this effect. Similarly, people who have, for many years, learnt a musical instrument which uses fingering, find it easy to learn to type, because the connections made in the brain for the instrument are the same as those needed for typing. Once the neural connections have been made repeatedly, the pathways become more fixed.



**Intelligence tests =**



**lifetime score**



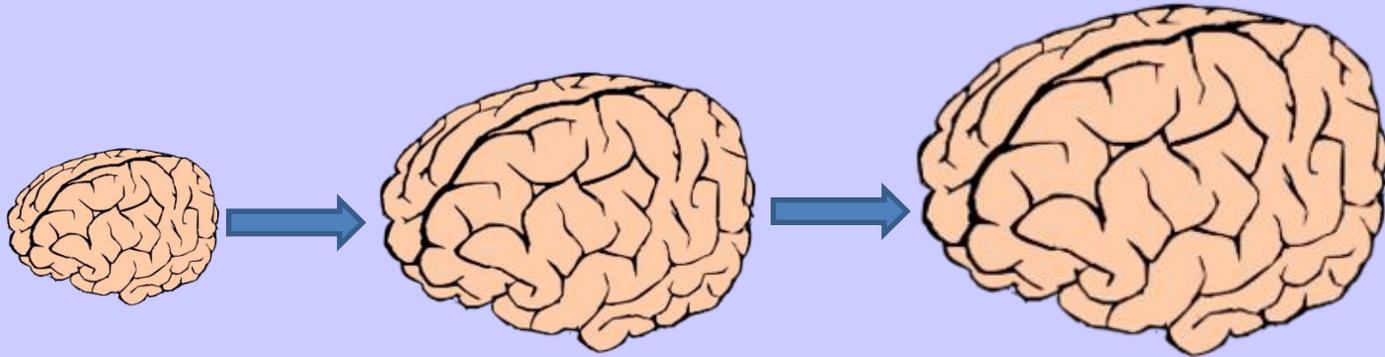
**Input + Practice + Effort**

**=**

**Smarter Brain**



# Learning Culture



The brain grows

practice

input

learning from  
each other



<b>Fixed mindset (performance orientation)</b>	<b>Growth mindset (learning orientation)</b>
<b>Intelligence is static. I must look clever!</b>	<b>Intelligence is expandable. I want to learn more!</b>
Avoids challenges	Embraces challenges
Gives up easily	Persists in the face of setbacks
Sees effort as pointless	Sees effort as the way
Ignores useful criticism	Learns from criticism
<p style="text-align: center;">↓</p> <p><b><i>Likely to plateau early and achieve less than full potential</i></b></p>	<p style="text-align: center;">↓</p> <p><b><i>Reaches ever higher levels of achievement</i></b></p>



# Taking on challenges

Fixed	Mixed	Growth
You don't really take on challenges on your own. You feel that challenges are to be avoided.	You might take on challenges when you have some previous experience with success in a related challenge.	You look forward to the next challenge and have long range plans for new challenges.



# Learning from mistakes

Fixed	Mixed	Growth
<p>You see mistakes as failures, as proof that the task is beyond your reach. You may hide mistakes or lie about them.</p>	<p>You may accept mistakes as temporary setbacks, but lack strategies to apply what you learned from the mistakes in order to succeed.</p>	<p>You see mistakes as temporary setbacks, something to be overcome. You reflect about what you learned and apply that learning when revisiting the task.</p>



# Accepting feedback and criticism

Fixed	Mixed	Growth
<p>You feel threatened by feedback and may avoid it altogether. Criticism and constructive feedback are seen as a reason to quit.</p>	<p>You may be motivated by feedback if it is not overly critical or threatening. Who is giving the feedback, the level of difficulty of the task, or their personal feelings might all be factors in your motivation.</p>	<p>You invite and are motivated by feedback and criticism. You apply new strategies as a result of feedback. You think of feedback as being a supportive element in the learning process.</p>



# Practise and applying strategies

Fixed	Mixed	Growth
<p>You do not practise and avoid practising when you can. You do not have any strategies for accomplishing the learning goals or tasks, or you apply ineffective strategies.</p>	<p>You practise, but a big setback can make you want to quit. You are more willing to practise things you are already considered good at. You are open to being given a strategy to meet a challenge, but you rarely apply your own strategies unless it is something you are already good at.</p>	<p>You enjoy the process of practising and see it as part of the process of getting good at something. You may create your own practice or study plans. You fluidly use many strategies, think of some of your own strategies and ask others about their strategies.</p>



# Perseverance and focus

Fixed	Mixed	Growth
<p>You have little persistence on learning goals and tasks. You give up at the first sign of a struggle.</p>	<p>You may persevere with prompting and support. Unless you are provided with strategies for overcoming obstacles, you will stop or give up.</p>	<p>You 'stick to it' and have stamina for the tasks(s). You keep working confidently until the task is complete.</p>



# Asking questions

Fixed	Mixed	Growth
<p>You do not ask questions or do not know which questions to ask, but you can usually say you 'don't get it' if asked.</p>	<p>You might ask questions about a portion of the task that you feel you can do. If you perceive it to be out of your ability, you probably won't ask questions.</p>	<p>You ask specific questions, ask questions about your own thinking and challenge the text, the task and the teacher.</p>



# Taking risks

Fixed	Mixed	Growth
<p>You do not take risks, and if something is too hard you give in blank or copied work, if anything at all. You are not engaged in the process/ task.</p>	<p>You will take risks if the task is already fairly familiar to you. If not, you will resort to copying or giving in partially completed work.</p>	<p>You begin tasks confidently, risk making errors and openly share the work you produce.</p>



## What not to say (fixed mindset)



## What to say (growth mindset)



Not everybody is good at maths. Just do your best.

When you learn how to do a new kind of problem, it grows your maths brain!

That's OK. Maybe maths isn't one of your strengths.

If you catch yourself saying 'I'm no good at maths', just add the word 'yet' to the end of the sentence.

Don't worry. You'll get it if you keep trying.  
(If students are using the wrong strategies, their efforts might not work. They may also feel particularly inept if their efforts are fruitless).

That feeling of maths being hard is the feeling of your brain growing.

Great effort! You tried your best.  
(Don't accept less than optimal performance from your students).

The point isn't to get it all right away. The point is to grow your understanding step by step. What can you try next?



# Some things to think about ...

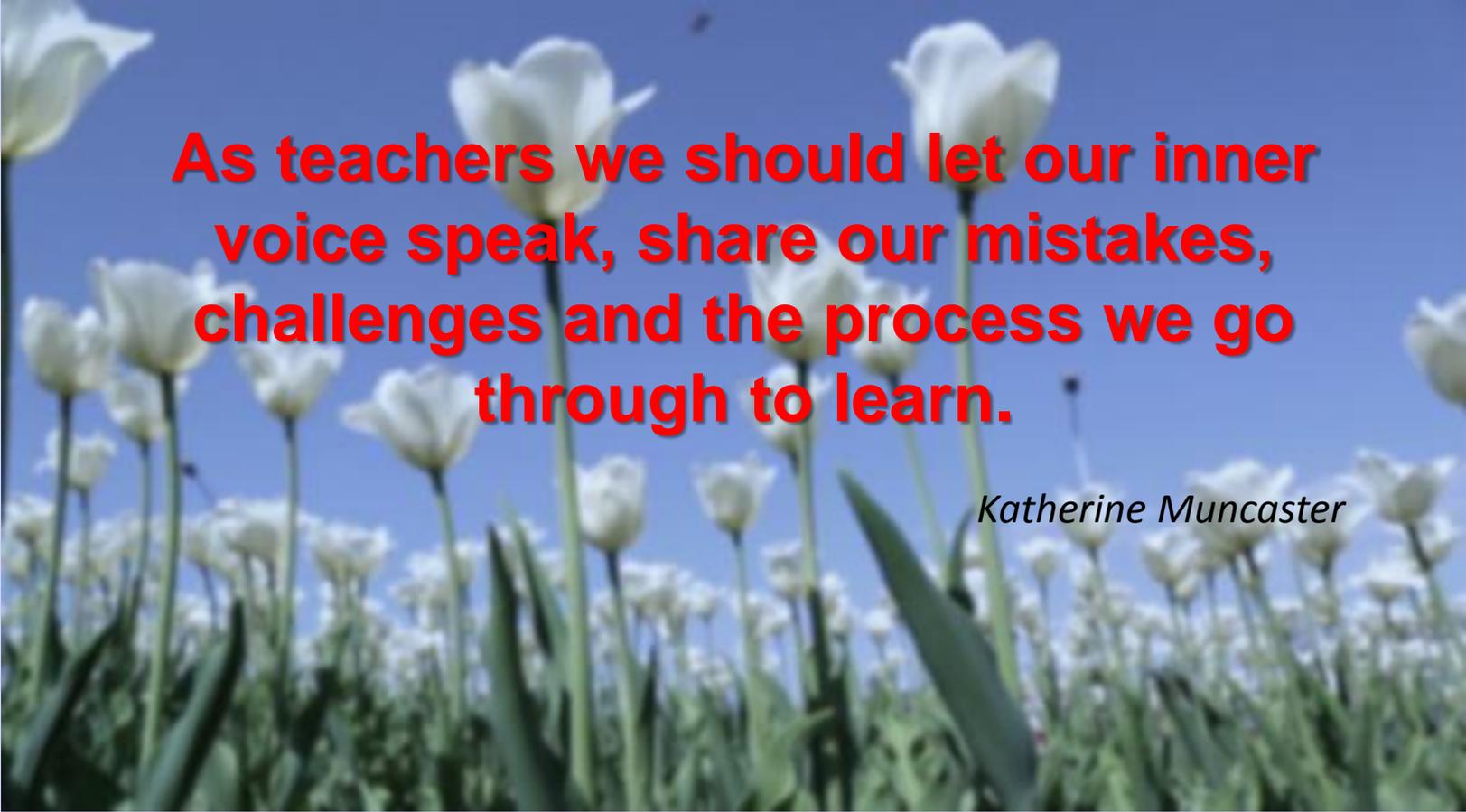
Winston Churchill was put in the lowest class in his school and repeated a year

Beethoven's teacher called him a 'hopeless composer'

Einstein's teacher said he was academically subnormal

Walt Disney was told he lacked 'creative imagination'



A photograph of a field of white tulips in full bloom, set against a clear, bright blue sky. The flowers are in various stages of opening, with some fully open and others as buds. The green stems and leaves are visible in the foreground and middle ground.

**As teachers we should let our inner  
voice speak, share our mistakes,  
challenges and the process we go  
through to learn.**

*Katherine Muncaster*



# How do we develop a growth mindset?

- learning from mistakes
- failure
- resilience
- perseverance
- challenge
- effort
- self-efficiency



# What can you do?

- Praise effort rather than ability
- Encourage your child to see learning as a process that is more valuable than the end results
- Encourage your child to be an independent learner
- Help to develop personal strategies – we are not on our own
- Discuss your own failures/mistakes/challenges
- Remember **The 5R's**



