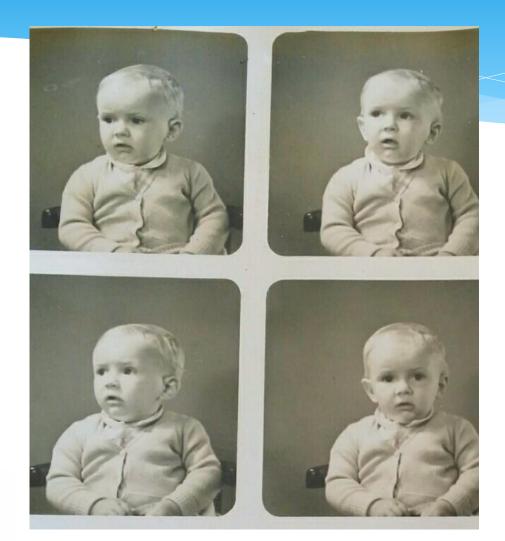
Acceleration Programme:

Educating the Most Able

Wednesday 7th December 2022

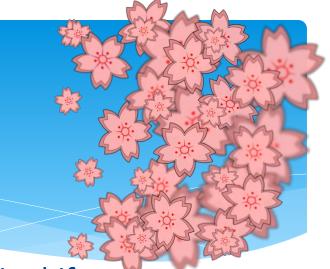


Can I Change My Mindset?





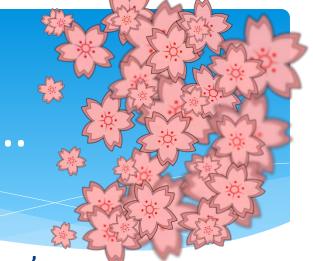
Can you Change to a Growth Mindset?



- * Just knowing about mindsets can lead to a big shift.
- * 'Nobody laughs at babies because they can't talk. They just haven't learnt to yet'
- * The language we use about ourselves has a huge impact on what we achieve.



Do you believe things about yourself such as.....



- * 'I'm not good with numbers.'
 - * 'I'm not a natural athlete.'
 - * 'I'm not creative.'
 - * 'I'm a procrastinator.'

It's clear that fixed mindsets will cause you to avoid experiences where you might feel like a failure. As a result, you don't learn as much and it's hard to get better.

You Have a Choice So Talk Back with a Growth Mindset Voice.

- * FIXED 'Are you sure you can do it? Maybe you don't have the talent.'
- * GROWTH 'I'm not sure I can do it now, but I think I can learn to with time and effort.'
- * FIXED 'What if you fail—you'll be a failure'
- * GROWTH 'Most successful people had failures along the way.'
- * FIXED 'If you don't try, you can protect yourself and keep your dignity.'
- * GROWTH 'If I don't try, I automatically fail. Where's the dignity in that?'

Understand that the Brain Is a Muscle





Neuroplasticity and learning explained - YouTube

What is mindset?: A mental attitude that determines how you will interpret and respond to situations.

Carol Dweck – Stanford University

2 types of learners: based on pupils perceptions of their own ability...



- Intelligence and talent fixed
- Innate talent creates success
- Effort will not make a difference
- You either get it or you don't



Growth mindset:

- Intelligence can be developed
- Brains and talent are just the starting point
- Enjoy effort and process of learning
- You can <u>always</u> grow and learn



Ideas worth spreading



The Brain and Learning

The brain transfers information through a network of cells (neurons)



The brain is like a muscle that gets stronger faster and works better the more it is exercised –

A GROWTH MINDSET works the muscle!

Too often students believe the brain is static, leading them to think talent and giftedness are permanent, unchanging personal attributes that automatically bring later success.

When you learn new things, your brain makes new connections to transfer information better and faster



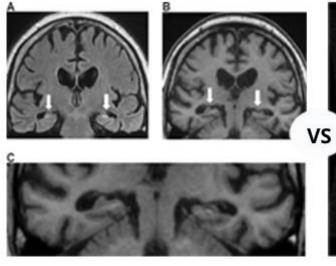
When new connections are formed you actually become smarter!

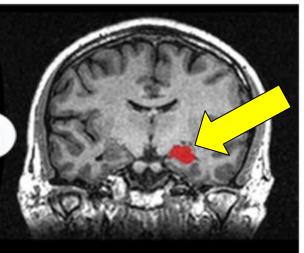


London Taxi Drivers

* In a study by University College London found that with 25,000 streets in London taxi drivers' brains need to learn quickly. The research shows that their brain grows, develops and gets larger.





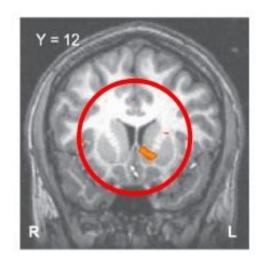


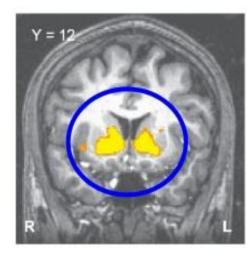
Enlarged Hippocampus

Motivation: Adults Vs Teens

Comparison of the brain activation of adults and teenagers while they were performing the same task for a reward...

Compared to adults, teenagers <u>under-use</u> the brain circuits that are involved in motivation



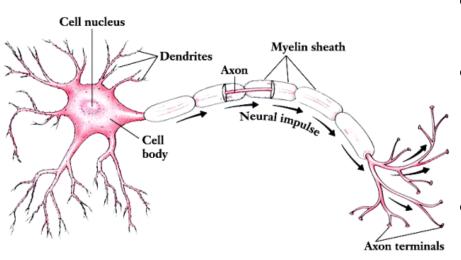


- The adolescent utilises approximately 20% of the brain that the adult utilises on a motivation task - just because we *THINK* a child ought to be motivated, that doesn't mean they will be!
- Research shows that additional, engaging activities that are not curriculum specific serve well to 'switch on' the motivation circuitry in the brain.



Myelination and Emotional Maturity

Myelination is the process by which brain oligodendrocytes produce layers of myelin that wrap around the neuronal axons and act as a layer of insulation for the transmission of electric action potentials down the neuronal axon



- Coating of myelin is not complete until about age 24.
- Areas of the brain that regulate emotion, judgment, motivation and impulse control myelinate during adolescence.
- Myelination occurs earlier in girls than boys.
- This is why teenage girls can appear to be more emotionally mature than boys
- The teenage brain is not 'finished off' until 24-25!



Finding Flow

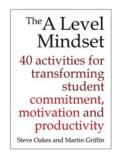
Flow states feel like:

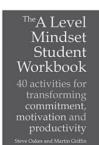
"nothing else seems to matter. The ego falls away. Time flies... your whole being is involved, and you're using your skills to the utmost."

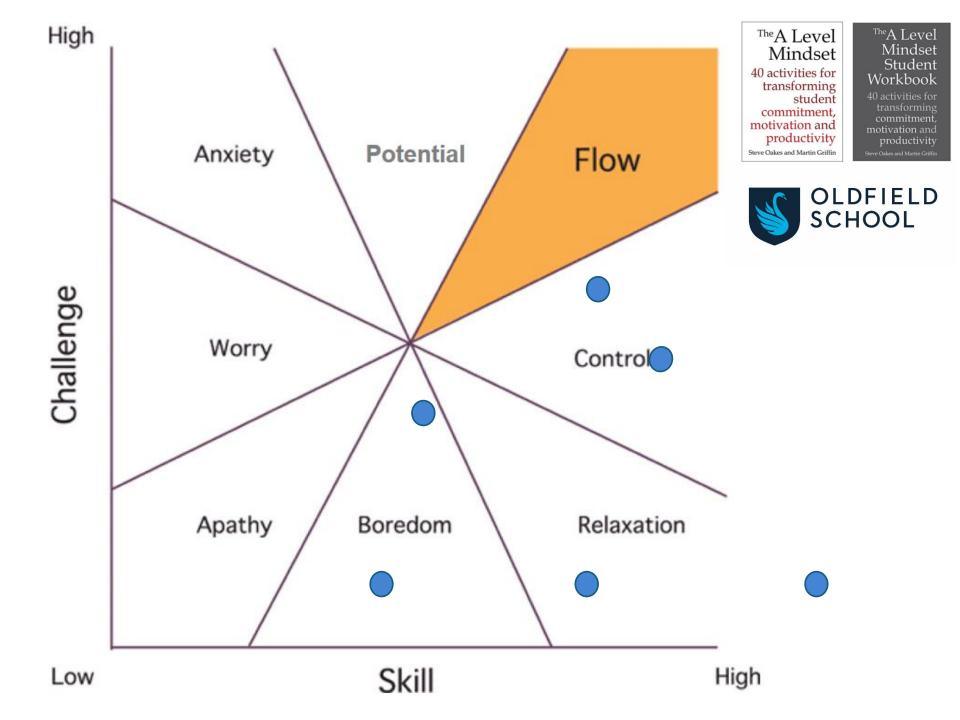
Flow states arrive when engaged in:

"painful, risky, difficult activities that stretched the person's capacity and involved an element of novelty and discovery."

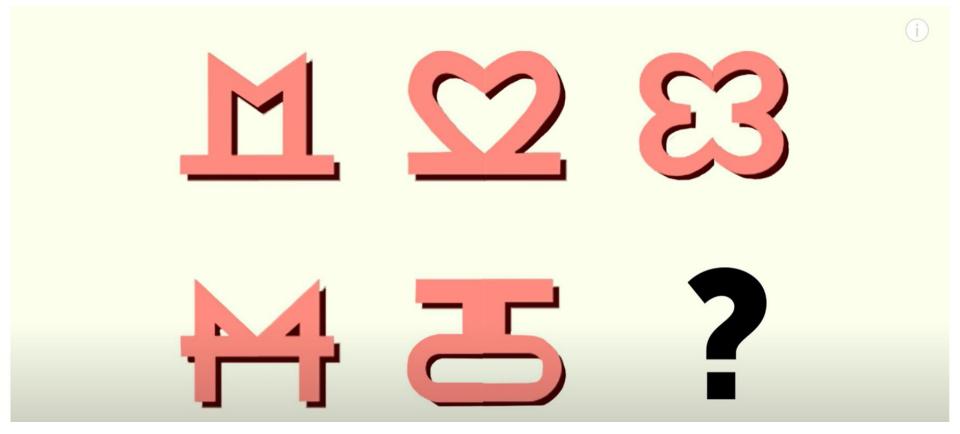
Mihaly Csikszentmihalyi, Flow (1991)



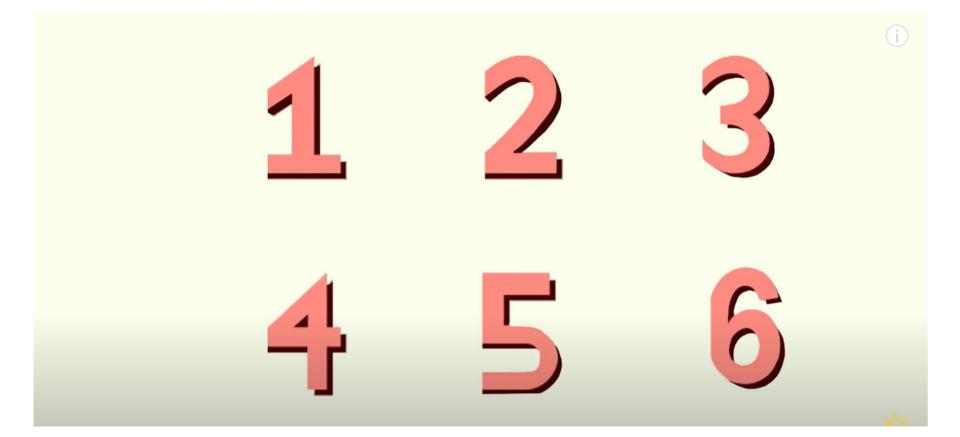




In this sequence of patterns, what shape should replace the question mark?

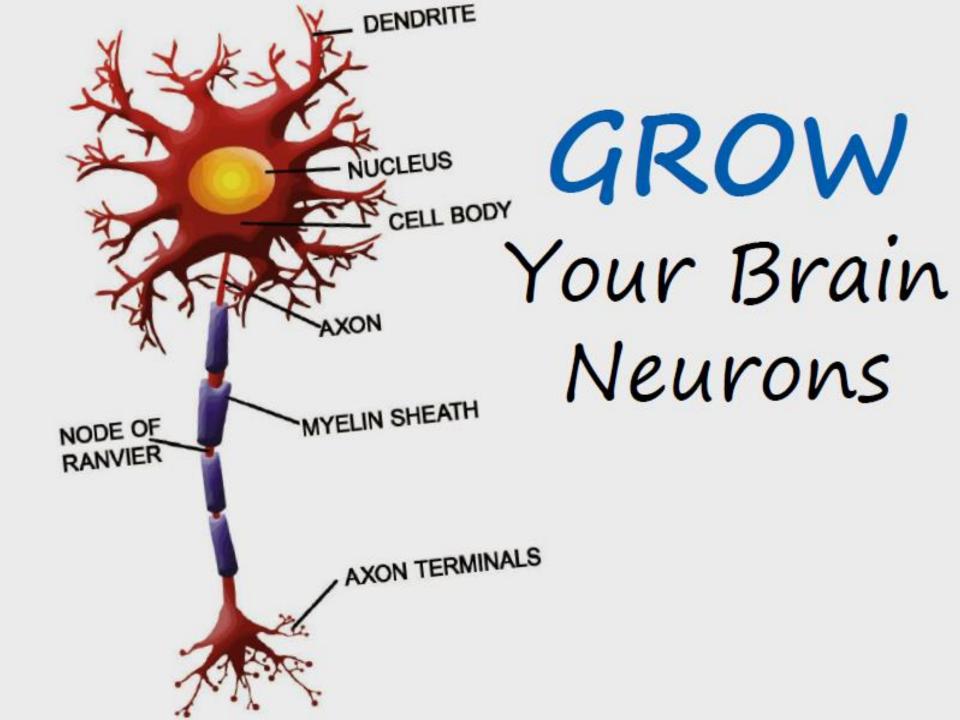


What figure should replace the question mark?



What figure should replace the question mark?





Acceleration Programme 2022-2023

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1. Close monitoring of stretch and challenge across the curriculum:

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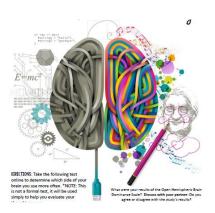
2. Additional Opportunities:

- Enrichment programme Lecture Series
- Online Lectures and Workshops:
- Revision strategies
- Visiting speakers

3. Academic Acceleration

- The Brilliant Club
- Gifted and Talented Club





1. Stretch and Challenge within Lessons

First and foremost, we must not lose sight of simply teaching our students well

This means challenging and stretching our most able students.

How: By providing opportunities in class for students to challenge themselves.

GCSE

Write your name here Centre Number Candidate Number **Pearson Edexcel** Level 1/Level 2 GCSE (9-1) Mathematics Paper 2 (Calculator) **Foundation Tier** Thursday 7 June 2018 - Morning Paper Reference 1MA1/2F Time: 1 hour 30 minutes You must have: Ruler graduated in centimetres and millimetres. protractor, pair of compasses, pen, HB pencil, eraser, calculator Tracing paper may be used.

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name. centre number and candidate number.
- Answer all questions
- Answer the guestions in the spaces provided there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- Calculators may be used.
- If your calculator does not have a π button, take the value of π to be

A Level

Write your name here

Use black ink or ball-point pen.

. Fill in the boxes at the top of this page with your name

Suniane	Other names
APT Initiatives Ltd: Practice Exam Paper for	
Pearson Edexcel	
Level 3 GCE	
Economics A	
Advanced	
Paper 1: Markets and Business	Behaviour
Time: 2 hours	
You do not need any other materials.	Total Marks
Instructions	

Challenge Wall



Super Curriculum

Super Curriculum









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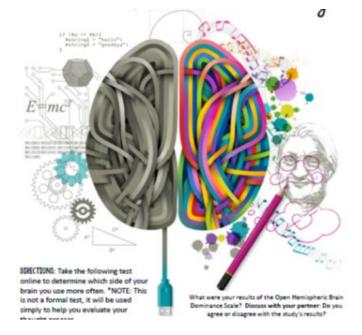


2. Lecture Series

FEBRUARY S22: How could the universe fit in the palm of your hand? - 5th February (1) Why telling stories makes us human - 6th February (2) How language shapes the way we think - 7th February (2) Stock markets and how they work - 8th February (1) Parasites - Could a zombie apocalypse really happen - 11th February (1) The science of sperm - 12th February (1) The chemistry of drugs - 13th February (1) How could the universe fit in the palm of your hand? - 26th February (2) LRC: The chemistry of drugs - 27th February (2) French slang and its origins - 27th February (1) MARCH S11: Donating blood - what's it all about? - 5th March (1) Understanding how we behave from a multidisciplinary perspective - 6th March (1) Donating blood - what's it all about? - 6th March (2) LRC: How language shapes the way we think - 7th March (2) Parasites - Could a zombie apocalypse really happen - 11th March (2) S22: How could the universe fit in the palm of your hand? - 12th March (3) The chemistry of drugs - 13th March (3) How can physics be used in medicine? - 14th March (1) John Maynard Keynes and the beauty contest when everyone changed their mind - 26th March (1) The mathematics of love - 26th March (1) How can physics be used in medicine? - 27th March (2) **APRII** LRC: Free lunches antipodean style - 4th April (1) Becoming an illustrator - 5th April (1) Parasites - Could a zombie apocalypse really happen - 11th April (3) 009: How Vivienne Westwood changed my life! - 24th April (1) How can physics be used in medicine? - 25th April (3) Becoming an illustrator - 26th April (2) MAY Understanding how we behave from a multidisciplinary perspective - 2nd May (2) LRC: The mathematics of love - 7th May (2) D01: The art of conducting: Drama or leadership? - 7th May (1) What can Strictly tell us about the philosophy of history? - 8th May (1) Red terror: The Chinese cultural revolution - 9th May (1) Free lunches antipodean style - 14th May (1) What can Strictly tell us about the philosophy of history? - 15th May (2) Red terror: The Chinese cultural revolution - 16th May (2) Hall Lectures (dates TBC):

The role of the amygdala in criminal behaviour - LOJ

Dietrich Bonhoeffer, the church leader who planned to kill Hitler - EDC How our brain works: why we do what we do when we didn't plan to do it - LOJ







What's sociological about a street?



Psychopaths: Biology or society?



The Art of Conducting



When did the Universe fit into my hand?



Lecture Series 2022-2023

Lecture Topic 2022-2023	
"Crypto and Beyond" A New Era - Digital Currency	
When did the Universe fit into my hand?	
Día de los Muertos: Bring out your dead	
Free lunches Antipodean Style - Botany Bay and the First Fleet	
demokratia' in Ancient Athens: How radical but right were the Greeks compared to the Romans?	
Neuroplasticity - How Experience Changes The Brain	
The Bechdel Test. Feminism in Film and TV	
The Art of Conducting	
What's sociological about a street?	
The Fallen Woman': The politics of gender in post-Famine Ireland	
Jobs of the future	
B-a-th or B-AR-th'?? Where is your accent from and what is it saying about you?	
Scientology: What on earth is it?	
Sessions to Years 7,8 & 9	
Psychopaths: Biology or society?	
Airline pilots: How do they manage an emergency.	
TBC	
TBC	

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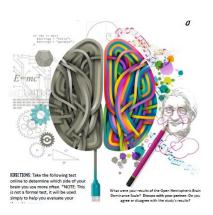
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Gifted & Talented Conference



Astronomy
'How we'll live on Mars'
Colin Stuart

Chemistry
'Chembox' – a live interactive chemistry demonstration
Dr Zoe Schnepp



Environmental Science
'Is it too late to save our ocean?'







Wednesday I8 May 2022



A unique opportunity for high achievers in Years 9, 10 & 12 to extend their subject knowledge and challenge their critical thinking. JOIN STUDENTS FROM AROUND THE UK
FOR THE ROYAL HIGH SCHOOL BATH (GDST)

GIFTED & TALENTED CONFERENCE

A full-day programme of academic lectures designed to stretch and challenge selected GDST students in Year 10 + 12.

This is a unique opportunity for students to extend their subject knowledge and challenge their critical thinking.

FRIDAY 14TH MAY 2021
TEACHER NOMINATED SIGN-UPS



BEN SPARKS

Mathematician, musician, and public speaker. Ben is based at University of Bath and gives maths talks and workshops around the world

MAGICAL MATHS



JENNIFER SCOTT

Director of Dulwich Picture Gallery since 2017. Jennifer was previously Director of The Holburne Museum, Bath

CREATIVITY IN



DR RICHARD A COLE

Scholar of ancient history, with an interest in the way history is framed and represented across time and media

POLITICS AND
PROPAGANDA FROM
ROME TO TRUMP



TIM HARRISON

Tim was awarded a Royal Society of Chemistry Schools Education Award in 2005, and will deliver a practical and spectacular demonstration.

GASES IN THE AIR



3. Academic Acceleration

The Brilliant Club – Scholars Programme

- Students enrolled on The Scholars Programme work with a PhD researcher on a university style module, based on the researcher's world-leading expertise.
- The programmes are pitched at a Key Stage above where students are currently studying and are designed to develop written and verbal communication, critical thinking and metacognition through exciting, supra-curricular content.
- Book-ending this study with their PhD tutor, pupils visit two leading universities to launch and graduate from the programme – demonstrating the physical and intellectual environment of university and supporting students to develop the knowledge, skills and ambition to make successful applications to highly-selective universities.



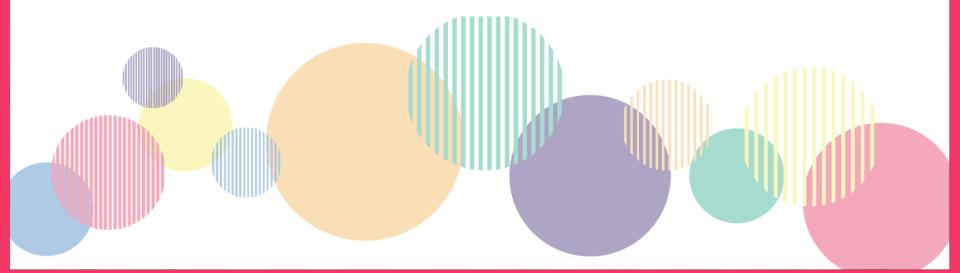


Study in small groups with a world class expert

No one else in the world studies exactly the same topic as your tutor

Your **PhD tutor** will have or be studying for their 3rd degree! So, they have lots of **knowledge** about university

They can help you develop **academic skills** and your understanding of applying to university



Visit Top Universities





You will be visiting two of the of best universities in the UK: one at the start of the programme and one for your Graduation event

This is a chance for you to speak to current students and ask them anything you want to know about university!

You will see some of the **facilities** that universities have like lecture theatres, libraries and accommodation

These may be places you will one day go on to apply to



Core Principles:



A core focus on academic development and attainment

The Scholars Programme supports pupils to develop the knowledge, skills and ambition needed to progress to a highly-selective university. The programme focuses on academic development and attainment through university trips, in-school tutorials and challenging independent assignments.



Targeting pupils who will benefit the most

We work with schools to ensure that all pupils who take part in our programmes have demonstrated the potential to secure a place at a highly-selective university and/or will gain significant benefit that would not otherwise have been available.



Potential for sustained intervention from KS2 to KS5

We begin working with pupils at Key Stage 2 and can continue to support their academic development throughout their school careers and path to university. New pupils are able to join our programmes at each key stage.



Age-appropriate support

Our programmes combine academic development with information, advice and guidance to support university choices. This includes sessions delivered by our university partners and access to our online virtual learning environment.

Love what you learn!







It's time to let students learn what they love



I did well at school, and was fortunate enough to study at one of the best universities in the world. I always knew I was smart, but I still had to work hard to get the best out of myself.

How hard was it to get into Cambridge at 16?

I think getting into Cambridge University is hard however old you are! I should also clarify that I was 16 when I received my offer, I was 17 by the time I actually started university.

What did you study at University?

I studied Natural Sciences – this is a broad course that allows you to try lots of different sciences and gradually specialise as you go through your degree.

Tell us about particular areas of interest

I'm fascinated by the way in which curiosity can motivate people. I love encouraging talented students to explore outside their school subjects and discover what really interests them. Often, this isn't the topics they study during the school day, but many students don't know where to start when it comes to asking their own questions and doing their own exploration. At Gifted Study Club our message is



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Promoting a GROWTH MINDSET...

1. Praise the PROCESS above achievement

Creates eagerness for challenge, persistence in the face of difficulty and enhanced performance

2. Regularly refer to the importance of CHALLENGE

Develop resilience by encouraging children to enjoy the challenge of learning - Success takes hard work!

3. Value a **GROWTH MINDSET** attitude

Encourage your child to hear their own 'fixed mindset' - respond to negative self-talk with a 'growth mindset' voice

4. Encourage and celebrate MISTAKES

Use mistakes as an opportunity for discussing and teaching new strategies

5. Present ourselves as role models as GOOD LEARNERS

Model an endless curiosity for life and a love of learning - so your children know lessons are just the beginning of what you learn

Students Welcome to the Acceleration Programme 2022-2023

Thank you for listening to the presentation today



The A Level Mindset

40 activities for transforming student commitment, motivation and productivity

Steve Oakes and Martin Griffin

The A Level Mindset Student Workbook

40 activities for transforming commitment, motivation and productivity

Steve Oakes and Martin Griffin