

# Year 7 Academic Evening

2020

# Honesty, Integrity, Humility and Respect

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- **Respect and Relationships:**
- **Role model-**
- Compassionate Leadership- anxiety, trauma and bereavement
- Manners
- Tone
- Meet and greet
- Take an interest
- Speak to and include everyone
- Make them feel special
- Smile
- Model the expectations you have of them
- We must not assume they know...



# ETHOS OF LEARNING



## TEAMWORK

### COLLABORATION

Working together to achieve

### EMPATHY

Understanding others' views

### COMMUNICATION

Listening, articulating, and connecting with others

### RESPECT

Embracing diversity

### CO-OPERATION

Supporting others

## ENGAGEMENT

### OBSERVATION

Paying attention to detail and having an awareness of the bigger picture

### RIGOUR

Being able to delve deeper into your learning

### PASSION

Having an enthusiastic desire to learn

### PERSEVERANCE

Not giving up in the face of difficulty

### RELEVANCE

Seeing the importance of your learning in the wider world

## CREATIVITY

### PROBLEM SOLVING

Seeing connections and solutions across your learning

### CHALLENGING ASSUMPTIONS

Questioning and enquiring

### COURAGE

Being prepared to take risks and to learn from mistakes

### NEW IDEAS

Thinking flexibly

### INITIATIVE

Using all resources to explore new pathways

## RESPONSIBILITY

### PREPARATION

Being organised and ready to learn

### FOCUS

Avoiding distractions; thinking before you act

### REFLECTION

Learning from experience and finding ways to improve

### CONFIDENCE

Having an open-minded approach

### CHALLENGE

Striving to fulfil your potential



# What's wrong with Education?

- 
- Sir Ken Robinson Link
  - [https://www.ted.com/talks/ken\\_robinson\\_says\\_schools\\_kill\\_creativity?language=en](https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity?language=en)

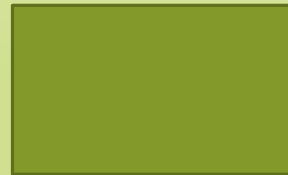


# Remember these times....?



# Building Curious Minds

- How many questions does the average 4 year old ask in a day?



## How do we want our students to be as learners ?

- **Correct**
- **Sit still**
- **Do as told**
- **Good at remembering facts**
- **Reliant on others**
- **Good at following instructions**
- **Listen to teachers**
- **Good at copying**
- **Self –evaluative**
- **Attentive to everyone**
- **Imaginative**
- **Responsible**
- **Initiators**
- **Adventurous**
- **Creative**
- **Social learners**
- **Be active**
- **Curious**
- **Independent**

# What do current Headteachers say about education?

- We are focussing too much on standards to the detriment of lifelong habits of mind.
- Our young people are becoming skilled for a life of tests not the tests of life.
- We are in danger of fostering a dependency culture.
- As our students grow older, we are teaching and they are learning in functional ways that limit their independence of mind.



- Their world will be challenging, uncertain and competitive.
- They need to be robust, imaginative, interdependent and flexible learners.
- Our schools need to adapt our approaches to provide students with the habits of mind they will need.

# Professor Tim Birkhead, Sheffield University

- “The most striking thing about some undergraduates is their dependence, their lack of initiative and their reluctance to think themselves...new undergraduates seem to expect to be told what to do at every stage. It is almost as though the spoon-feeding and teach-to-the-test culture at school has drained them of independent thought.”

# Essex advertising executive

- “What am I looking for in those I employ: people who show initiative, tell me about problems they’ve solved, look for opportunities that I’ve missed, work well with other people and make me feel that they’re enjoying what they do.”

# Michael Morpurgo, BBC Dimbleby Lecture, 2011

- “We must remember that we are preparing children not simply for employment and for the contribution they can make to the common good, but for the different decisions they will have to make in their personal lives, in those moments when they have to take responsibility themselves.”

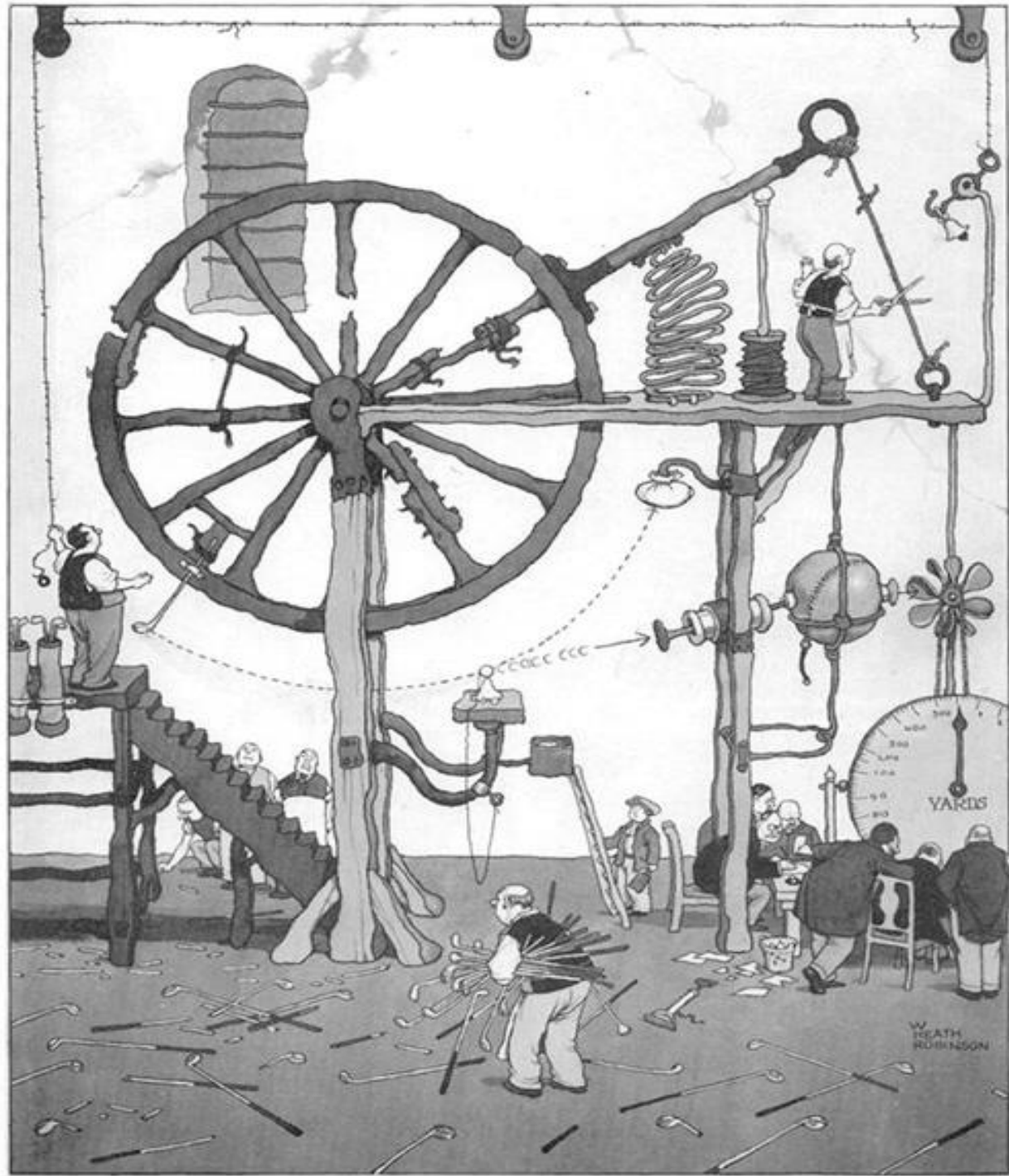
# Building Curious Minds

- Our main task is to enable all young people to stay curious and cope with uncertainty so that they have the confidence to make decisions for themselves



## **The five toughest questions mothers and fathers get asked:**

- 1) Why is water wet? (35 per cent)
- 2) Where does the sky end? (34 per cent)
- 3) What are shadows made of? (33 per cent)
- 4) Why is the sky blue? (20 per cent)
- 5) How do fish breathe under water? (18 per cent)











What problems  
might this scheme  
cause?

# Ethos of Learning

- What kind of learners do we promote and value at RGS?







# ETHOS OF LEARNING



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# Ethos of Learning Teachers

## Explain

- Overt about the skills we wish to develop
- Train students to use them

## Model

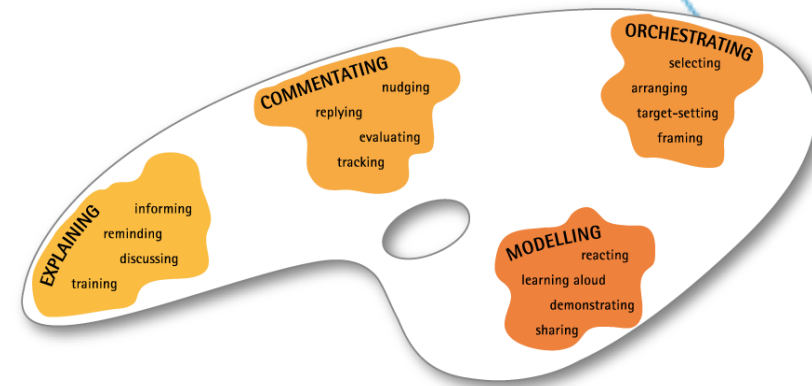
- being a learner and encourage collective commitment to learning.

## Commentate

- on pupils' learning skills, drawing attention to progress and how to strengthen these dispositions

## Orchestrate

- Organise classroom activities to develop learning behaviours and habits



# Ethos of Learning Teachers



## Explain

- Overt about learning power behaviours
- Train students to use them
- Posters

Why do we need to **Explain** ?

It builds a common language with which to discuss, and so understand, the learning process.

It raises the awareness of self as learner



# Ethos of Learning teachers

## Model



Why do we need  
to **Model** ?

We pick up our minds from  
the people we hang around  
with. [Claxton, after Vygotsky]

Why should they bother to  
become lifelong learners if  
we can't be bothered to  
model ourselves as lifelong  
learners ?

# Ethos of Learning teachers



## Commentate

- on pupils' learning power, drawing attention to progress and how to strengthen behaviours

Why do we need to Commentate ?

To give feedback on content acquisition *and* on learning skills.

To *deliberately* talk so as to nudge students to adopt particular learning skills.



# Ethos of Learning Teachers



## Orchestrate

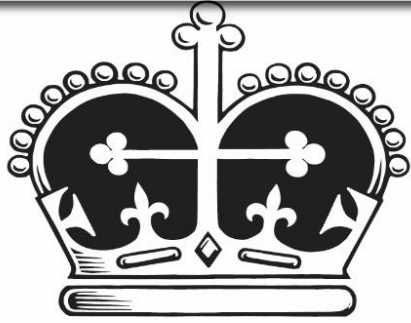
- Organise classroom and activities to develop learning behaviours and habits

Why do we need to **Orchestrate** ?

To plan lessons/Games/ Music/ Drama with two thoughts in mind –

- 1) **what** are they going to learn, and
- 2) **which learning skill (s)** will be critical to learning it.

To make the required learning skill(s) public.



**RGS** ESTD  
1562  
HIGH WYCOMBE

SCHOLA REGIA GRAMMATICA

# RGS BRONZE AWARD LEVEL 1 YEAR 7

## Core Principles

- ▶ We want all RGS students to achieve their full potential and this is not just in academic work.
- ▶ We expect all students to become involved in the life of the school by involvement in the co-curricular programme.
- ▶ We value leadership and the skills learnt through leadership experiences.
- ▶ Our Ethos of Learning promotes learning in all areas of school life.



## WHY DO WE HAVE THE RGS BRONZE AWARD?



To complete the RGS Bronze Award Level 1 Year 7 boys must show evidence of the following:

- ▶ Co-Curricular Activity – Participation over at least the equivalent of half a term.
- ▶ Leadership – Leadership can be demonstrated once in Year 7, Year 8 or Year 9.
- ▶ Ethos of Learning Activities – EOL tasks in the Autumn, Spring and Summer Terms.

# THE RGS BRONZE AWARD FOR YEAR 7

# PUPIL PLANNERS

RGS Bronze Award Level 1		
ACADEMIC YEAR 2018-2019	EVIDENCE Signed by Year 7 Prefect	FT Stamp and date
AUTUMN TERM EOL DETAILS		
SPRING TERM EOL DETAILS		
SUMMER TERM EOL DETAILS		
CO-CURRICULAR (participation over at least the equivalent of half a term) DETAILS		
LEADERSHIP (can be demonstrated once in either Year 7 or Year 8 or Year 9) DETAILS		
BRONZE AWARD ACHIEVED: _____ Signature of FT: _____		

10

RGS Bronze Award Level 1		
ACADEMIC YEAR 2018-2019	EVIDENCE Signed by Year 7 Prefect	FT Stamp and date
AUTUMN TERM Write a paragraph about one of the Ethos of Learning strands that you have worked on this term. Show examples of how you have used this strand.		
SPRING TERM Write down the details of the poster you have created to illustrate a strand from the Ethos of Learning.		
SUMMER TERM Write a paragraph to explain how you have used the strands from the Ethos of Learning for your revision for the end of year exams.		

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- ▶ Art Club
- ▶ Astronomy Club
- ▶ Bridge Club
- ▶ Christian weekly meetings
- ▶ Chess Club
- ▶ DART Karate
- ▶ Fives
- ▶ Handwriting Club
- ▶ History Society

- ▶ Islamic Society
- ▶ Music Activities
- ▶ Maths Mentoring
- ▶ Maths Challenge Club
- ▶ Reading Club
- ▶ Sikh Society
- ▶ Sporting Activities
- ▶ Table Tennis Club
- ▶ Warhammer Club



# WHAT WILL YOU DO FOR YOUR CO-CURRICULAR ACTIVITY?

(NOT ALL CLUBS AVAILABLE IN COVID TIMES)

## Responsibility

### Preparation

Organised and ready to learn

### Focus

Avoiding distractions, thinking before you act

### Reflection

Learning from experience and finding ways to improve

### Confidence

An open-minded approach

### Challenge

Striving to fulfil your potential

## Engagement

### Observation

Attention to detail and awareness of the bigger picture

### Rigour

An ability to delve deeper into your learning

### Passion

An enthusiastic desire to learn

### Perseverance

Not giving up in the face of difficulty

### Relevance

Recognising the importance of your learning in the wider world

## Creativity

### Problem Solving

Seeing connections and solutions across your learning

### Challenging Assumptions

Questioning and enquiry

### Courage

Prepared to take risks and learn from mistakes

### Generating new ideas

Thinking flexibly

### Showing initiative

Using all resources to explore new pathways

## Teamwork

### Collaboration

Working together to achieve

### Empathy

Understanding others' views

### Communication

Listening, articulating, sharing and connecting with others

### Respecting others

Embracing diversity

### Cooperation

Supporting others

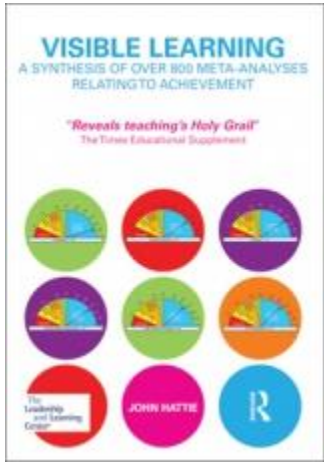
# TERMLY ETHOS OF LEARNING TASKS



**BY THE END OF THE  
YEAR WE WANT ALL IN  
YEAR 7 TO ACHIEVE  
THE RGS BRONZE  
AWARD LEVEL 1**

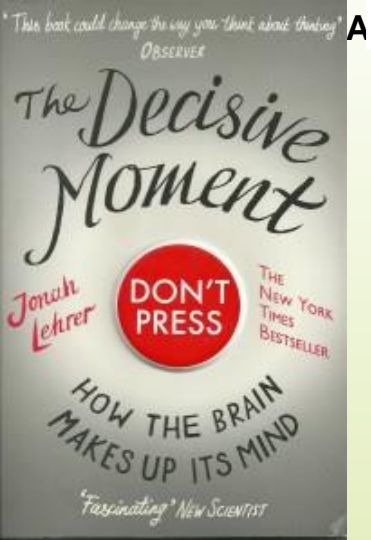
# We've got to work together

- Can they ask for the bill at the restaurant?
- Can they speak to the teacher if they are unsure of the task?
- Can they set their revision timetable?
- Can they tidy their rooms?
- Can they plan their party and ring up and make the bookings?
- Can they cook for the family once a week?
- Can they be the one who gives up their seat on the train?
- Can they be the one who helps the stranger in need?
- Can they be the one who looks out for other's who are struggling?
- Can they be the one who thanks granny for a useless present?!



# John Hattie, Visible Learning

- “A teacher’s job is to make work difficult. If you are not challenged, you do not make mistakes. If you do not make mistakes, feedback is useless.”



## Jonah Lehrer, A decisive mind

- “Unless you experience the unpleasant symptoms of being wrong, your brain will never revise its models. Before your neurons can succeed, they must repeatedly fail. There are no shortcuts for this painstaking process.”



# Ethos of Learning Newsletters

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*October 2020*

# Year 7 Academic Evening

**Alex Wallace**

*with William Wadsworth*

## Memory research in teaching & learning: a common language for evidence-based practice at RGS

Retrieval effect

Spacing effect

Interleaving effect



@ExamStudyExpert: the Twitter feed for handy research-informed teaching & learning ideas

# Science's most-cited meta-analysis of learning techniques gives further evidence from 400+ individual papers

Dunlosky et al, 2013

Researcher's overall "utility" rating

Retrieval practice	●
Spaced learning	●
Interleaving	●
Elaborative interrogation through asking questions	●
Self-explanation	●
Summarisation and note-making	●
Highlighting or underlining	●
Imagery use for text learning	●
Keyword mnemonic	●
Rereading	●

"**More than 100 years of research** has yielded **several hundred experiments** showing that practice testing enhances learning and retention (for recent reviews, see Rawson & Dunlosky, 2011; Roediger & Butler, 2011; Roediger, Putnam, & Smith, 2011)..."

Testing effects have been demonstrated across an **impressive range of practice-test formats**, kinds of **material**, learner **ages**, outcome **measures**, and retention **intervals**."



@ExamStudyExpert: the Twitter feed for handy research-informed teaching & learning ideas

# The retrieval effect has a powerful dual action to form strong, easily-recalled memory

1. **Boosts storage strength:** memory strengthened much faster than without testing
2. **Increases recall fluency:** making it easier to accurately and quickly retrieve information from storage



*If laying down memory is like building a "pathway" of neurons...*



**Learning by pushing information "in"** (repeated exposure to information, e.g. re-reading) is like slowly etching out a track by foot



**Learning by retrieval** (pulling information "out", with some form of testing / quizzing) is like building a tarmacked highway with a steamroller



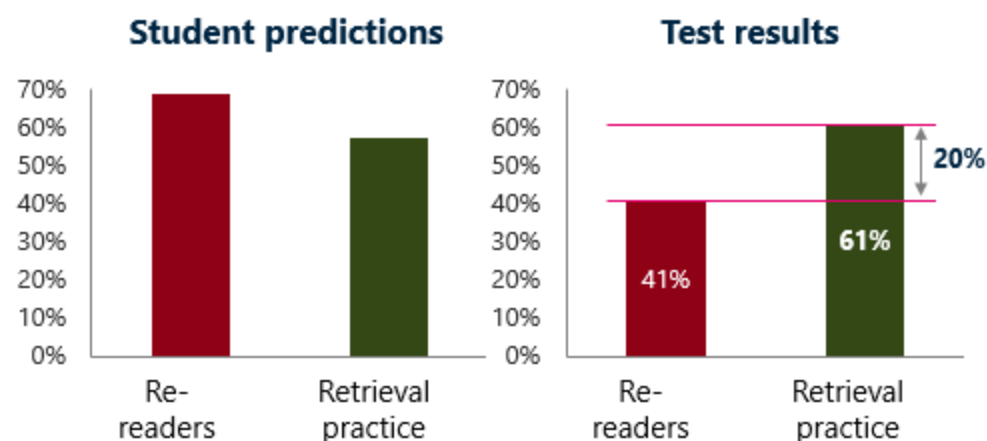
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Roediger & Karpicke, 2006



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Self-explanation



Summarisation and note-making



Highlighting or underlining



Imagery use for text learning



Keyword mnemonic



Rereading



"Would students be better off spreading out their study of content? **The answer to this question is a resounding 'yes.'**"



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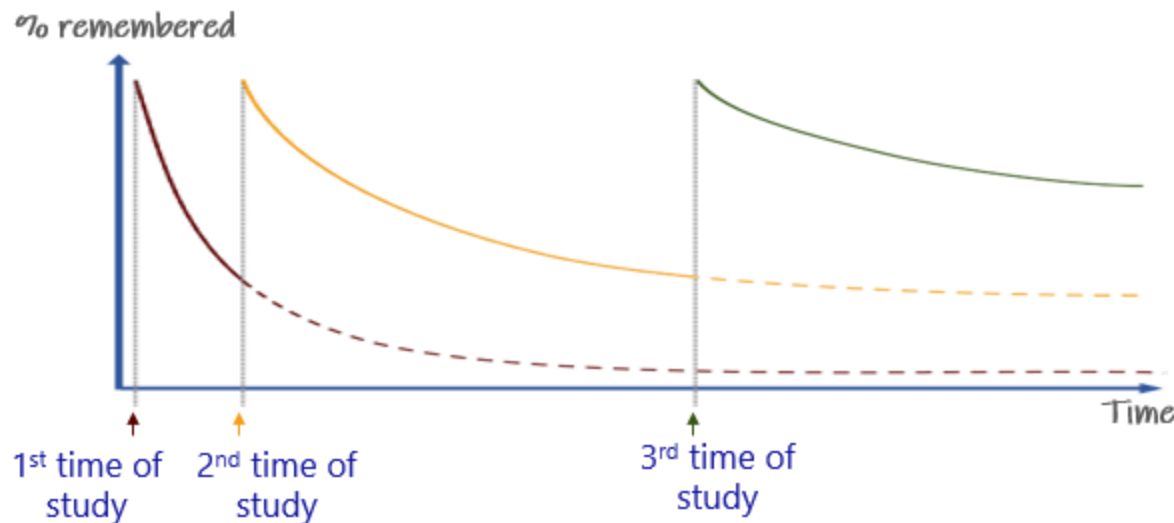
## The spacing effect



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# The **spacing effect** interrupts forgetting by revisiting at intervals, helping memories stay stronger for longer

Even the strongest neural “pathways” fade over time: **spacing out learning over different days interrupts the forgetting**, ensuring that those pathways stay stronger for longer, locking in memory for the long-term



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*Dunlosky et al, 2013*

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Interleaving



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Summarisation and note-making



Highlighting or underlining



Imagery use for text learning



Keyword mnemonic



Rereading



## Learning vocabulary

3x

More correct definitions recalled in spaced learning vs massed learning (21% vs 7%)

*Sobel, Cepeda, Kapler, 2011*

## Learning science concepts

48%

Better score on simple test of knowledge recalled when spacing

76%

Better score on more complex test of application of knowledge when spacing

*Vlach & Sandhofer, 2013*



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## The interleaving effect



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Highlighting or underlining



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Keyword mnemonic



Rereading



"Many fewer studies have investigated the benefits of interleaved practice [but]..."

Interleaved practice has been shown to have **relatively dramatic effects** on students' learning and retention of mathematical skills"



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## The interleaving effect: makes problem-based learning sessions more effective by jumbling up practice (e.g. maths)

*NB: spacing effect is about time gap (hours, days, weeks) between re-studying, interleaving is within a single learning session.*

Simulate more **"cold starts"** on a problem type so more effective retrieval practice / spacing, better able to **recognise** problem types and select right strategy, learn to **discriminate** between 2 similar techniques

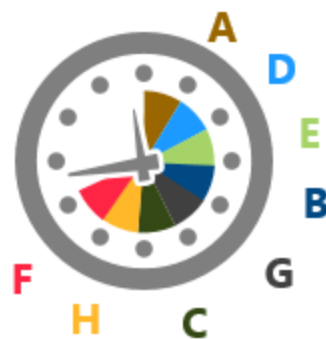
Typical problem sheets have long blocks of the same problem type



Interleaving offers a useful "halfway house" during training



When exams mix up lots of problem types together, it's more challenging



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Blocked practice

49%



Interleaved practice

74%

Maths problems  
Rohrer & Taylor, 2006



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## How can students use these principles in their learning?

### Retrieval

Pull information out (don't push it in) to build stronger, more fluently-recalled memory



- **DO LESS** re-reading, highlighting or making notes
- **DO MORE** self-testing, e.g. with flashcards, quiz apps or practice tests, or by doing "brain dumps"

### Spacing

Revisit at intervals – spaced out over days, weeks and months



- **DO LESS** revision of a given topic on the first day
- **DO MORE** revisits of that topic over time (build in review sessions to study schedule)

### Interleaving

Mix it up within one session



**Interleaved practice where relevant** e.g. maths problems, grammar



## We now understand how students are studying in never-before-seen detail – at RGS and elsewhere

### THE 2020 REVISION CENSUS



Questionnaire designed in collaboration with Washington University Memory Lab: asked students about **study techniques** AND **mindset / attitudes**

**28,673 pupil responses** from **43 secondary schools** of all shapes, sizes and types across England

*Largest-ever study of its kind (as far as we've been able to find)!*

*Caveat to note: we believe schools who agreed to participate in the survey tended to be more academic and more engaged with research-based practice than average schools.*



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## RGS' pupils are very impressive in many ways

	RGS	All-school average	
They're more resilient than almost any other school we studied	72%	60%	% who said they would persevere when the work gets hard. RGS ranked #1 out of all non-independent schools in the survey, and only one low-intake private school scored higher
They value academic achievement and have aspirations to go further	64%	51%	"Definitely" want to go to university
	87%	81%	"Very important" to get good grades in major exams
And they have a strong work ethic	1.9h	1.7h	Reported hours of homework



# When it comes to study habits, across the country, much time is still being spent on less effective learning strategies

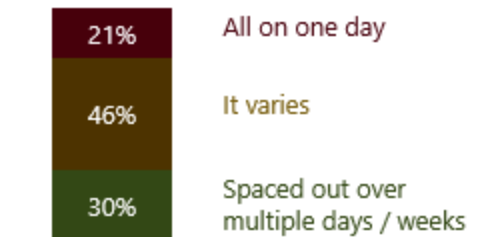
## How UK students are spending their revision time: lots of good practice, but room for improvement

Showing top 5 methods by reported % of revision time, Y10+ students



## Spaced learning is under-used

Describe your usual pattern of revision for a particular topic? Y10+



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# RGS pupils could be encouraged to move towards more effective ways of studying esp. for their major exams

RGS pupils may be over-using less effective learning strategies

RGS pupils like past papers, but should also be confident using other effective revision techniques

% revision time, Y10+

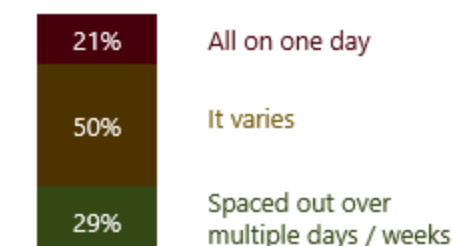


A little less re-reading / note-making

Broaden repertoire of "retrieval practice techniques: e.g. flashcards, "brain dumps"

Spacing is a major opportunity for students at RGS

Describe your usual pattern of revision for a particular topic? Y10+



Space out learning



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# 1229!

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# “Preparing for a life of tests, not the tests of life”

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- **More than just a school**
- Finland
- Mindfulness
- Make the Difference (MTD)
- IBSC- Character education
- 2020 Revision Census
- Co-curricular involvement
- Let's make good mistakes
- Do the right thing



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