

The art of retrieval...

**How do we enable children to
know and remember more?**

How much do you remember?

- Think back to a subject that you studied in school. How much can you remember of the content you were taught?
- *What did 'revision' mean to you?*
- *What did it look like?*
- *What did you do?*
- *Did it work?*
- *Were you given strategies to enable you to learn more and remember more?*

‘The practice of remembering’

The more we know, the more we can know. The more we know, the more we can understand. The more often we retrieve knowledge from our vast complex stores of memories in different ways – all those facts, words, ideas, concepts and experiences – the stronger those memories become and the more fluently we can recall them. The more fluent we are at recalling our knowledge, the better placed we are to explore new knowledge, solve new problems, to engage in debate, to respond to challenges, to understand what we read.

(Sherrington, T. 2019)

Forgetting is much easier!

- It's the most predictable feature of any learning process
- It's utterly inevitable (but people still seem shocked by this)

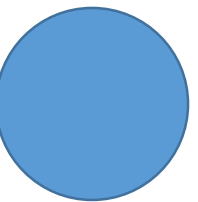
So how do we help children to remember what they learn?



Remembering or Forgetting?

Take a look at these letters:

BCI BTY VFS DKS



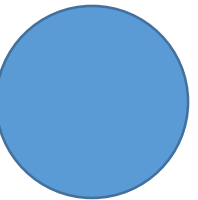
Can you remember the letters?

— — — — — — — — — — — — — — —



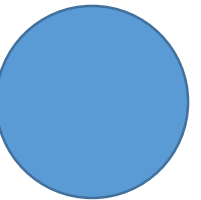
Now look at the same letters in a different order...

BBC ITV DFS SKY



Can you remember the letters now?

— — — — — — — — — — — — — — —

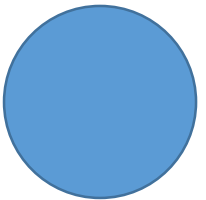


Why is this easier?

BBC ITV DFS SKY

*Relating current knowledge to prior knowledge
makes remembering so much easier.*

We need something to 'hang our hat upon'.



The difference between short term and long term memory...

- Short term memory holds a small amount of information, often for as little as twenty seconds.
- Long term memory holds larger blocks of information indefinitely. Unlike short term memory, long term memory seems to have an unlimited capacity.

What is Working Memory?

- Working memory is a form of memory that allows a person to temporarily hold a limited amount of information at the ready for immediate mental use. It is considered essential for learning, problem-solving, and other mental processes.

What is Cognitive Load?

Cognitive Load Theory emphasises the fact that our working memory, which holds and processes new information, has a very small capacity.

Therefore, if new information is not transferred to our long-term memory (which has a much larger capacity), it might be forgotten.

The transfer process might also slow down if too much information is presented at once, causing a cognitive overload.

What is Cognitive Load?

Too much information all at once can affect the transfer of information from our working memory to our long-term memory.

It is therefore important to help reduce cognitive load by encouraging children to pay attention to *relevant* information.



What is retrieval practice?

Retrieval practice is the act of recalling learned information from memory (with little or no support) and every time the answer is retrieved, or an answer is generated, it changes the original memory to make it stronger.

What is retrieval practice?

- ‘The purpose of instruction is to increase the store of knowledge in long term memory. If nothing has changed in long term memory, nothing has been learned.’

Sweller, J., Ayres, P., & Kalyuga, S (2001)

- ‘If nothing has been altered in long term memory, nothing has been learned. Progress, therefore means knowing more (including knowing more to do more) and remembering more.’

Ofsted School Inspection Update January 2019



1. Start the lesson with a short preview of previous learning
2. Present new material and information to children in small manageable steps
3. Ask a large number of questions
4. Provide children with models and worked examples to support problem solving
5. Continue to give children practice

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Tom Sherrington

ROSENSHINE'S PRINCIPLES IN ACTION



6. Continually check for children's understanding
7. Ensure children get a high success rate in the lesson
8. Provide scaffolding for children with difficult tasks ensuring depth and challenge for all
9. Require, monitor and promote independent practice within the classroom
10. Engage children in regular review

WHEN WE THINK ABOUT LEARNING, WE
TYPICALLY FOCUS ON GETTING
INFORMATION INTO STUDENTS'
HEADS. WHAT IF, INSTEAD, WE FOCUS
ON GETTING INFORMATION OUT OF
STUDENTS' HEADS?



POOJA AGARWAL
ON THE TEACHING IN HIGHER ED PODCAST #094

What about the link between retrieval and testing?

What it is

- Learning event
- Low stakes or no stakes (results not recorded or shared)
- Recalling information in a periodical way
- Information from memory
- Guides next steps and strengthens your learning ability

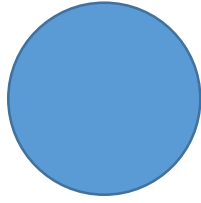
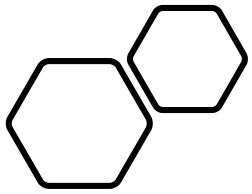
What it is not

- Exam— high stakes
- High pressure
- Judgement
- Stress and anxiety
- SATs prep



In summary

- Retrieving what we have learned helps information to ‘stick’ in our long term memory
- We use retrieval practice as a *learning strategy* not an *assessment tool*
- We provide retrieval practice frequently, as often as possible but make it short and pacy!
- We often provide retrieval practice after a lesson is complete, perhaps even a few days/weeks later
- We use a variety of strategies to implement frequent retrieval practice
- We use retrieval practice in a variety of subject areas
- We encourage metacognition by giving verbal feedback
- We reassure children that challenging their learning through retrieval is a good thing



Now what?

How do we currently enable children to demonstrate that they know more and remember more?

How do we use retrieval as a learning strategy?

Are there retrieval strategies that could be used at home?



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Retrieval Practice Challenge Grid

What was life like for pharaohs?	What was life like for poor Victorian children?	What event during the Victorian period do you think was significant? Why?
When was Victoria born?	What was life like for poor Egyptians?	What was life like in the workhouse?
What were the areas of change in the Industrial Revolution?	When did Queen Victoria die?	What happened when Pharaohs died?
What did the Egyptians believe happened when you died?	What was life like for rich Victorian children?	What did politics and power look like at the beginning of Victoria's reign?

One Point - Last lesson	Two Points - Last week	Three Points- Two weeks ago	Four Points - Further back
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Retrieval Shout Out!

Which key words did you use or learn last lesson?

State 3 key facts from our last lesson

Explain a key concept or idea from last week in your own words

Ask your partner 3 questions based on what we have covered this term



Discuss with your partner what we were studying in the lesson last week

Brain Dump



Your topic:
Romans



Your time
limit:
2mins

Write down as much information as
you can about the above topic...

Cops and Robbers

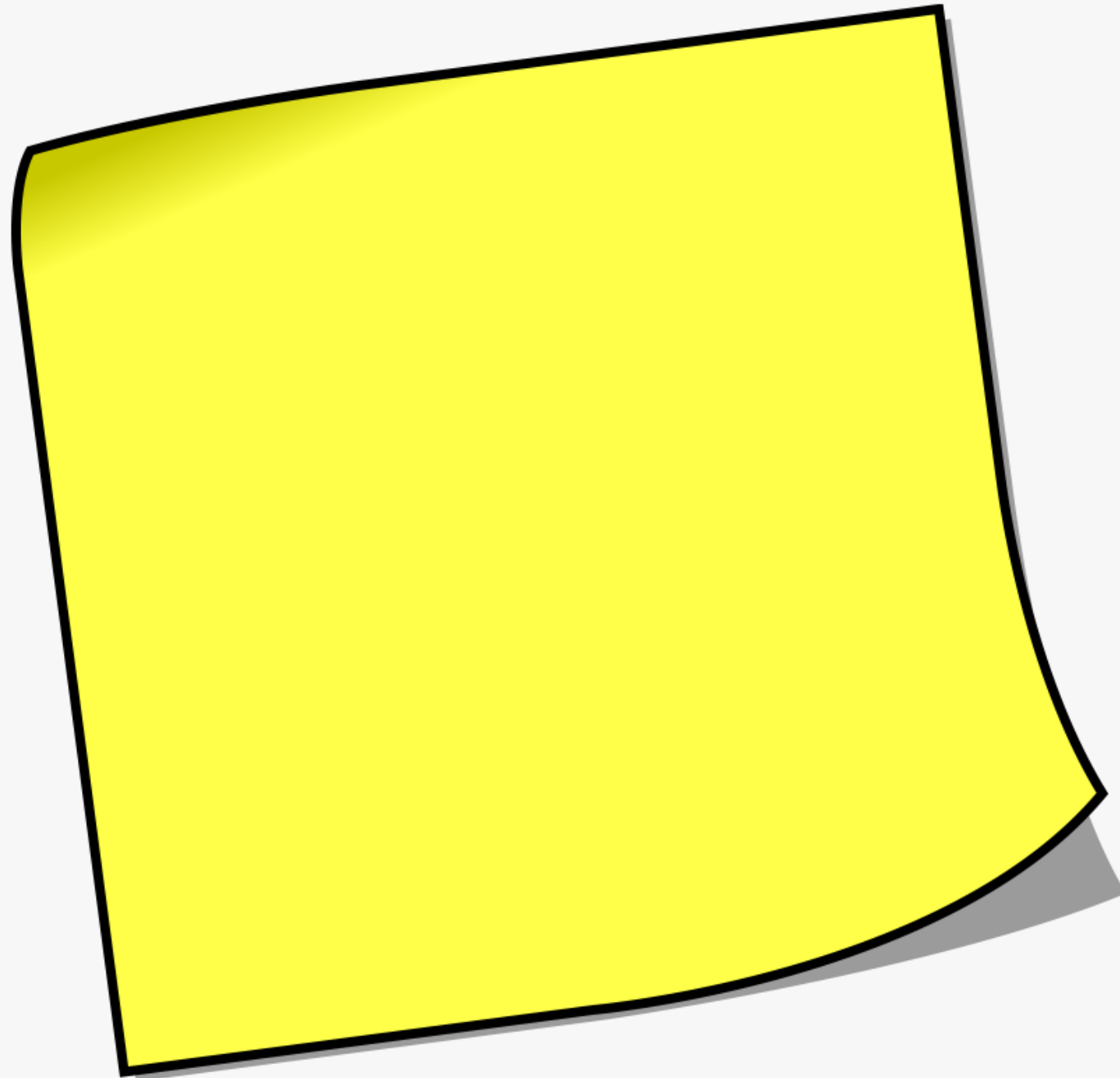
Write down what
you can
remember...



Write down what
you have 'stolen'
from your peers...

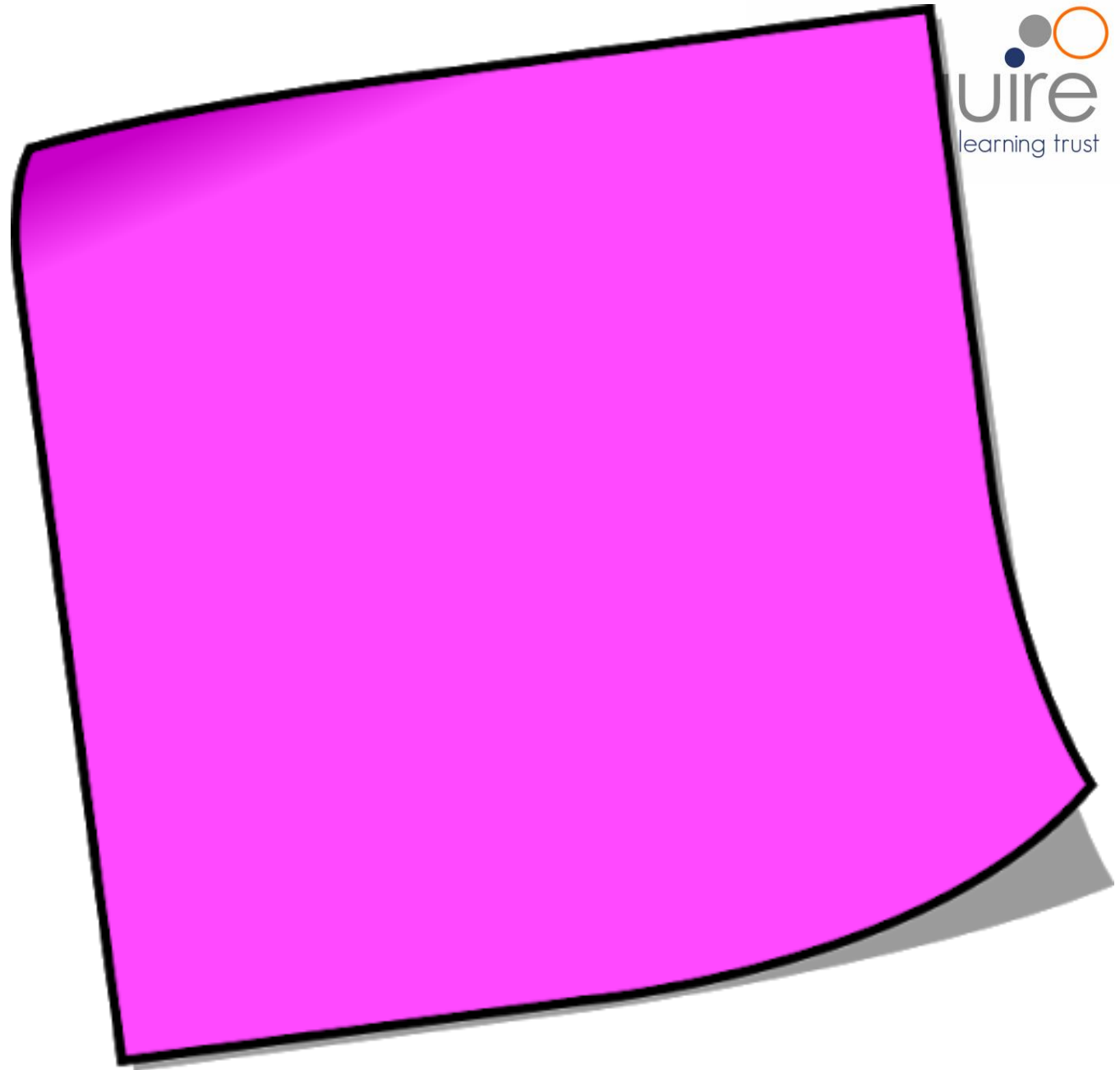
List it!

What can
you
remember
from today's
lesson?



List it!

What can you remember from our topic so far this term...?



What can you remember...?

Last lesson:

Last week:

Last term:

Last year:

Pick one person and write down as much as you can...

Florence Nightingale



Mary Seacole



Marie Curie



Rosa Parks



Queen Boudicca

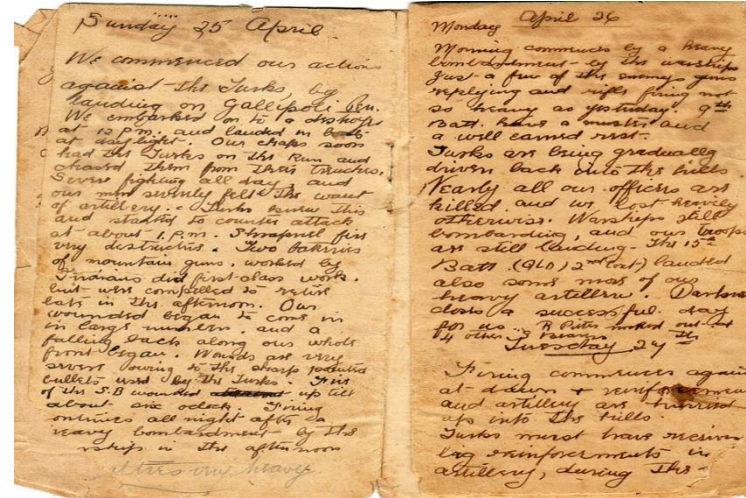


Harriet Tubman

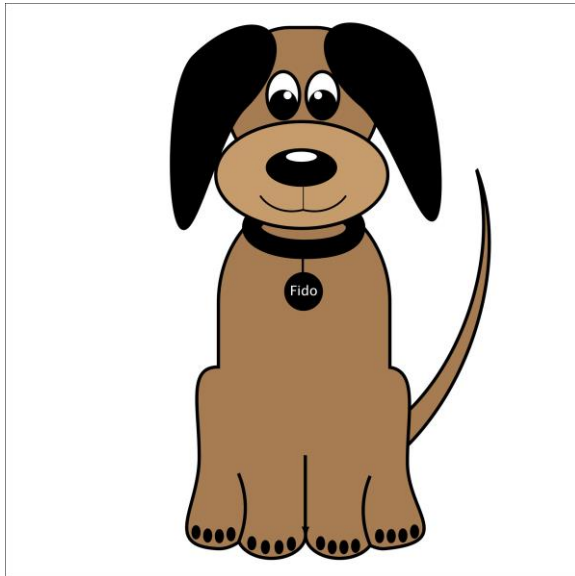
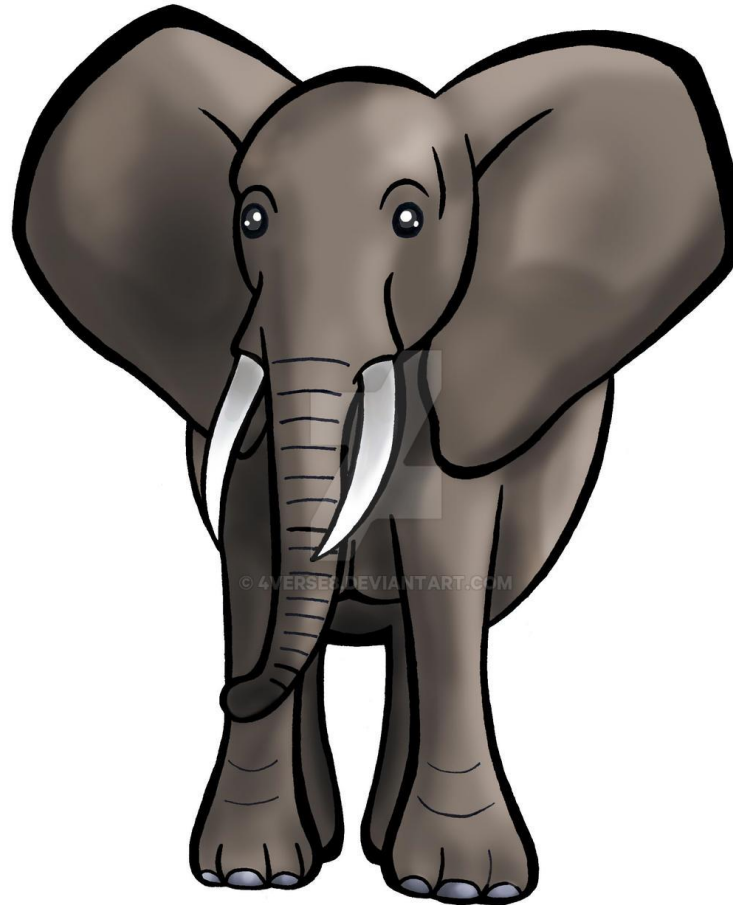
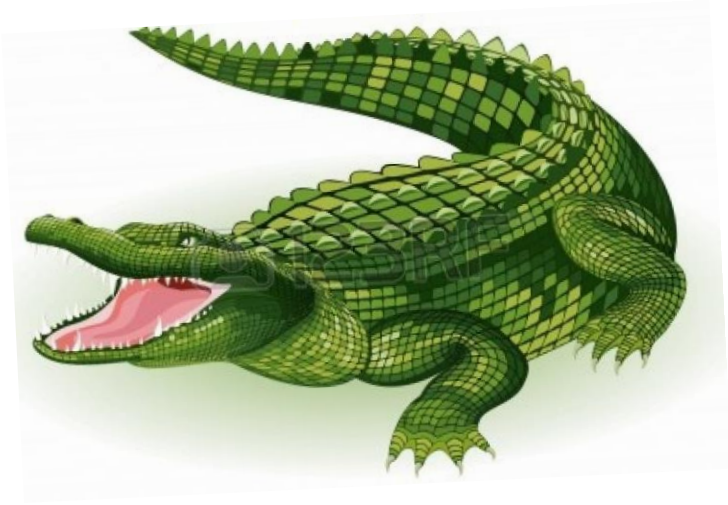


Picture Prompt

Explain how each image is linked to World War 1

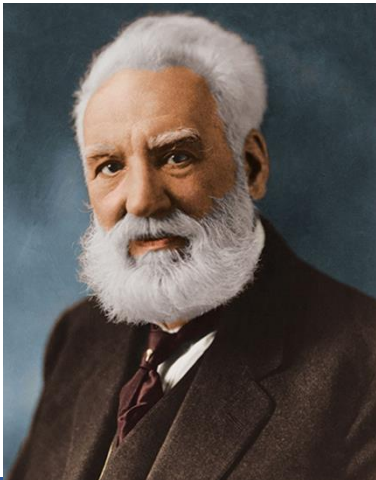
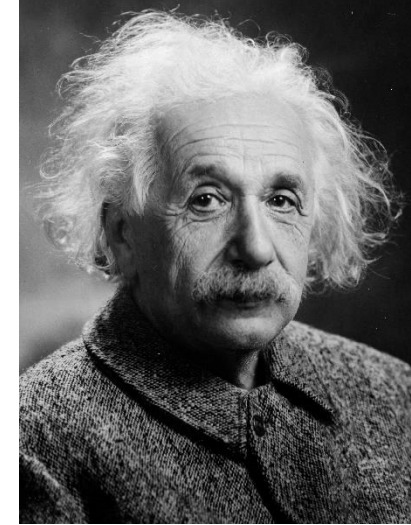


Odd One Out



Guess who?

Listen to my clues... who am I talking about?



Knowledge Organiser – Quizzing Mat



**CAN YOU REMEMBER
ONE OF THE KEY WORDS
AND CAN YOU EXPLAIN
WHAT IT MEANS?**

**CAN YOU REMEMBER ONE OF THE
KEY DATES AND CAN YOU
DESCRIBE WHAT HAPPENED?**

**CAN YOU DESCRIBE ONE
OF THE KEY EVENTS
FROM THE KNOWLEDGE
ORGANISER?**

**NAME A KEY
INDIVIDUAL
& EXPLAIN WHY THEY
WERE IMPORTANT.**

**WHAT KEY FACT OR FACTS CAN
REMEMBER FROM MEMORY FROM
YOUR KNOWLEDGE ORGANISER?**

**CAN YOU DESCRIBE ANY
OF THE PICTURES OR
IMAGES ON YOUR
KNOWLEDGE ORGANISER?**

DON'T LOOK AT YOUR KNOWLEDGE ORGANISER WHEN QUIZZING – TRY TO RECALL FROM MEMORY!



What now?



- Why not select one or two retrieval activities to trial with your child?
- You could refer to the knowledge organisers for topics that have been covered (available on Teams) to see what they can remember.
- Have a go and make it fun!