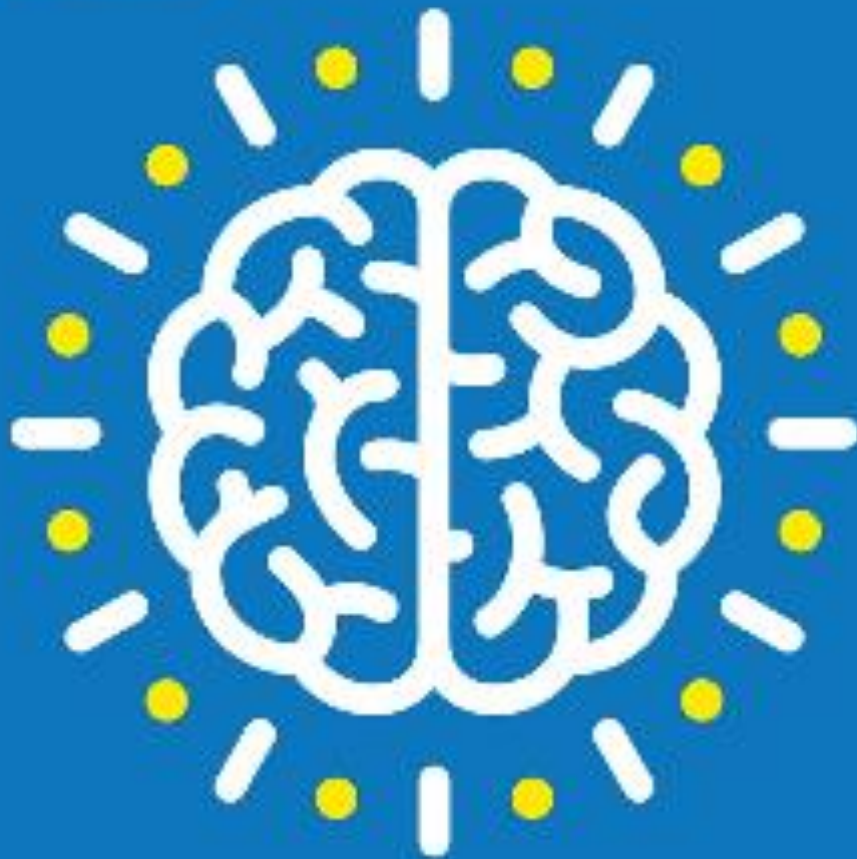


RETRIEVAL PRACTICE: RESOURCE GUIDE

Ideas & activities for
the classroom



KATE JONES

"Before you start something new, review the old." P.A Kirschner

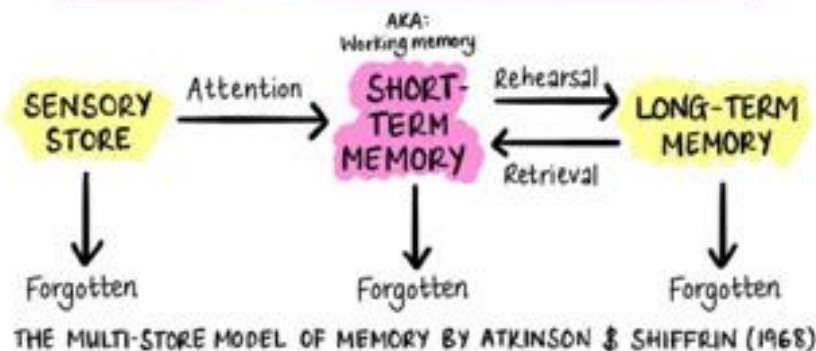
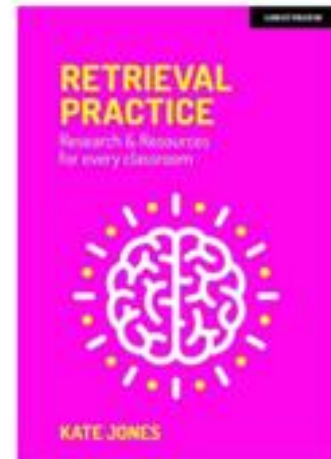
Retrieval

Grace Hudson
@MissH.biology

KATE JONES

Practice

The act of recalling learned information from memory (with little or no support) and every time that information is retrieved, or an answer is generated, it changes the original memory to make it **STRONGER!**



Peterson & Peterson (1959)

→ Almost all information stored in short-term memory that is not rehearsed is lost within 18 to 30 seconds!

‘Using your memory shapes your memory’

RETRIEVAL STORAGE

→ how well information is embedded in long-term memory

RETRIEVAL STRENGTH

→ how easily a piece of information can be brought to mind when required

Learning = a change in long-term memory

‘if nothing has changed nothing has been learned’

Meaningful learning is about producing organised, coherent and integrated mental models that allow people to make inferences and apply their knowledge. (Karpicke, J. 2012)

THE BENEFITS:

- ① Retrieval practice aids later retention
‘every time you retrieve a memory it becomes deeper, stronger and easier to access in the future’
- ② Testing identifies gaps in knowledge
- ③ Testing causes students to learn more from the next learning episode
- ④ Testing produces better organisation of knowledge



- ⑤ Testing improves transfer of knowledge to new contexts



- ⑥ Facilitates retrieval of material that wasn't tested



- ⑦ Improves metacognition



- ⑧ Prevents interference from previous material when learning new content



- ⑨ Provides valuable feedback to teachers



- ⑩ Regular testing encourages students to study more



“Before you start something new, review the old.” P.A Kirschner

BIG QUESTIONS

Step 1:

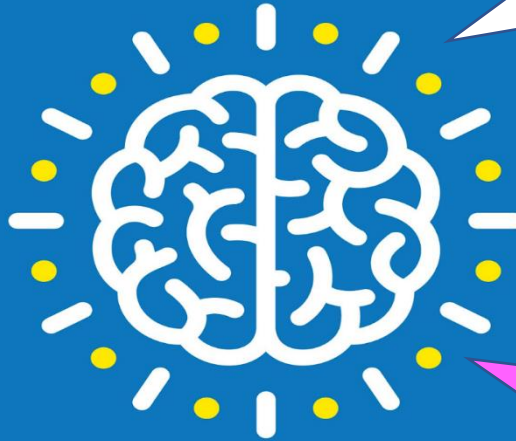
Think of some questions about the current topic.

Step 3:

Revisit at the end of the lesson to see if it was answered

Step 2:

Write them down in different boxes.



Next time:

Can you remember the answers to your questions?

| | |
|--|--|
| | |
| | |

“Before you start something new, review the old.” P.A Kirschner

COPS AND ROBBERS

Step 1:

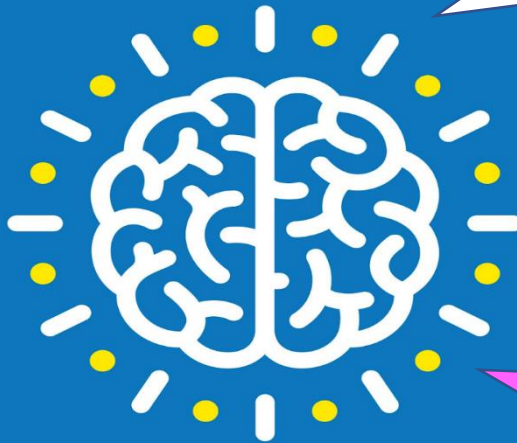
Write down as much as you can remember in x minutes.

Step 3:

'Steal' information from your peer that is added information.

Step 2:

Share this information with a friend.



Next time:

Can you steal from a different peer?

Your own knowledge and recall...



Information you have 'stolen' from your peers...



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INDIVIDUAL SPOTLIGHT

Step 1:

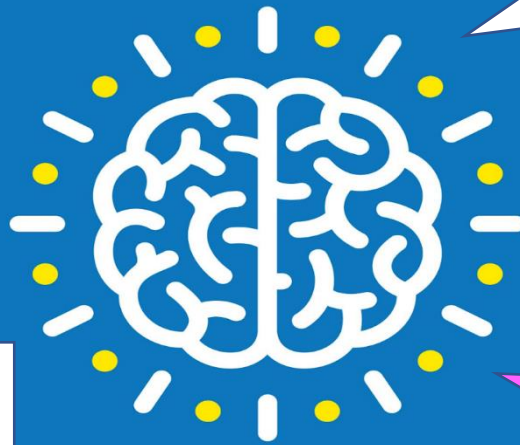
Look at the picture – do you know who the person is?

Step 3:

Think about what you would like to know about the person.

Step 2:

Read the question and answer is words or sentences.



Next time:

Can you find the answer to your own question?

Individual Spotlight on:

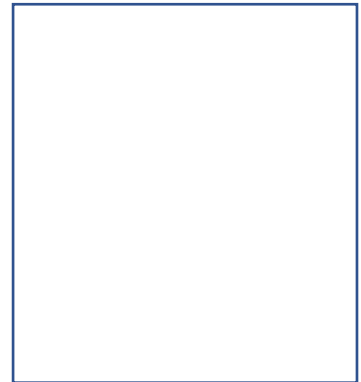
How would you describe this person?

What is this individual best known for?

What other people are connected to this person?

What other key facts can you recall about this individual?

Create a question where the key individual is the answer.



SELF ASSESS YOUR UNDERSTANDING OF THIS PERSON IN REACTION TO OUR TOPIC (PLEASE CIRCLE):

GOT IT!

ALMOST!

NOT YET!

“Before you start something new, review the old.” P.A Kirschner

MISCONCEPTIONS RETRIEVAL

Step 1:

Write down the misconceptions the teacher has shared.

Step 3:

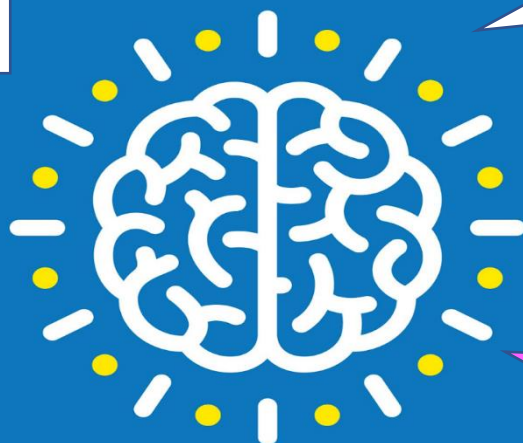
Write down you evidence for your reasons

Step 2:

Discuss whether this is correct or needs to be changed.

Next time:

Build on your answer – have any misconceptions changed?



| Misconception | Correct or better answer? Try and use explicit evidence where you can. |
|---------------|--|
| Statement A: | |
| Statement B: | |
| Statement C: | |
| Statement D: | |
| Statement E: | |

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PICTURE PROMPT

Step 1:

Cut out, stick or draw some symbols/icons from your topic.

Step 3:

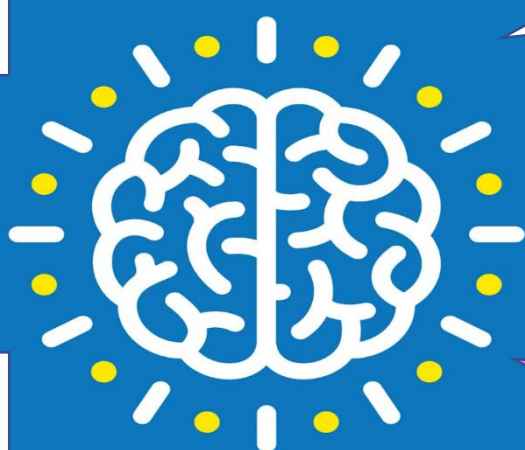
What is the symbol/icon so important?

Step 2:

Write down anything you can remember about this icon

Next time:

What other symbols/icons can you remember or draw?



<https://thenounproject.com/> - for ready to 'cut and paste' symbols/icons

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RETRIEVAL PLACEMENT

Step 1:

Choose a question.

Step 3:

Try and challenge your peer to recall lots of information.

Step 2:

Take turns to discuss with your peers.

Next time:

Can you go back to lessons last term or even year?

What key words did you use or learn last lesson?



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

State 3 key facts from last lesson.

Ask your partner 3 questions based on the content covered this term.

NO NOTES ALLOWED!

Discuss with your partner what we were learning in the last lesson.

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RETRIEVAL ROCKET

Step 1:

Get your facts ready to launch.

Step 3:

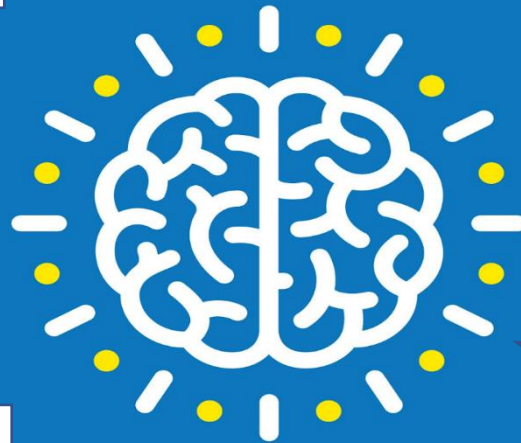
Get to 5 facts so your rocket can head to the moon.


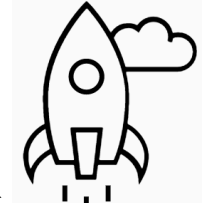
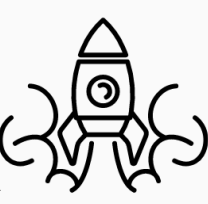
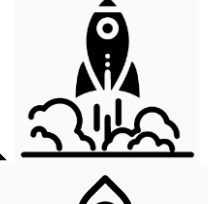
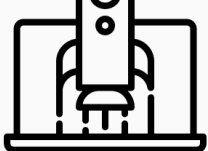
Step 2:

Share them with your class to send the rocket in to orbit.

Next time:

Can you remember more facts next time to send your rocket in to outer space!



| | | |
|---|------------------|--|
|  | TO THE MOON! | |
|  | TAKE OFF! | |
|  | BOOSTERS FIRING! | |
|  | ENGINES ENGAGED! | |
|  | READY TO LAUNCH! | |

"Before you start something new, review the old." P.A Kirschner

A to Z of key words

Step 1:

Think about your topic.

Step 3:

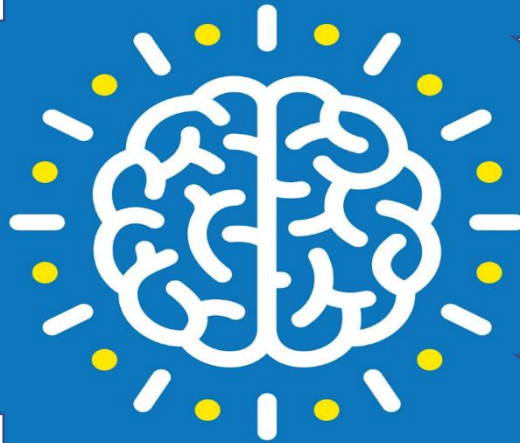
Can you think of a word(s) for the topic for each letter of the alphabet?

Step 2:

What vocabulary or words come to mind?

Next time:

Can you complete the whole alphabet? Can you complete it in a quicker time?



| | |
|-----|-----|
| A = | N = |
| B = | O = |
| C = | P = |
| D = | Q = |
| E = | R = |
| F = | S = |
| G = | T = |
| H = | U = |
| I = | V = |
| J = | W = |
| K = | X = |
| L = | Y = |
| M = | Z = |

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GO FOR GOLD

Step 1:

The Teacher will write some topic words in boxes. Copy them down.

Step 3:

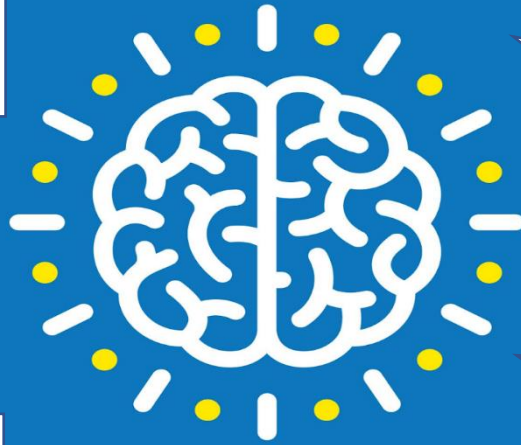
Use your chosen key words to explain what you have learned so far.

Step 2:

Choose which level you are going to take on.

Next time:

Choose words from a more challenging level or include you own vocabulary.



Bronze: _____

Silver: _____

Gold: _____

Own vocabulary

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KEY WORD SPOTLIGHT

Step 1:

The Teacher will write a KEY WORD for you to discuss.

Step 3:

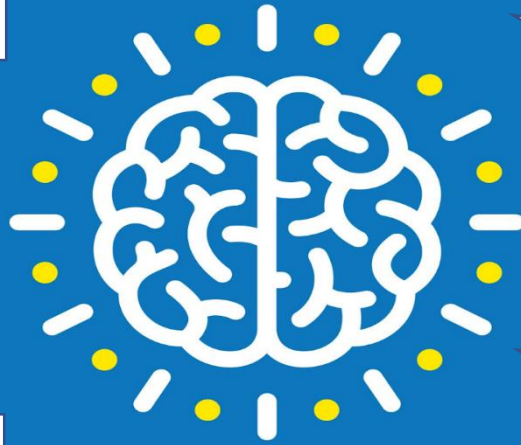
Try and draw a picture to capture the key word.

Step 2:

Write a response to each statement.

Next time:

Share with your peer to see if you can 'steal' anything.



Key word:

In your own words write a definition:

Use the term correctly in a sentence:

Create a question where the key word is the answer:

What other words are connected to the key word:

Draw a picture to represent the key word:

SELF ASSESS YOUR UNDERSTANDING OF THIS KEY WORD IN REALTION TO OUR TOPIC (PLEASE CIRCLE):

GOT IT!

ALMOST!

NOT YET!

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