Pinewood Infant School and Foundation Unit

Together we give children the roots to grow and the wings to fly

Responsibility Resilience Independence Curiosity Respect Kindness Honesty Self-belief

Memory at Pinewood

Intent: To improve our children's long term memory.

Implementation: We will revisit and practise what we have already learnt.

We will use dual coding as a technique to support memory skills.

We will not overload the working memory.

Impact: By revisiting previous topics (spaced retrieval) children are committing their learning to their long term memory.

Using dual coding supports children in recalling learning from their working memory.

Retrieval practise enables children to recall what they have learnt in their working memory

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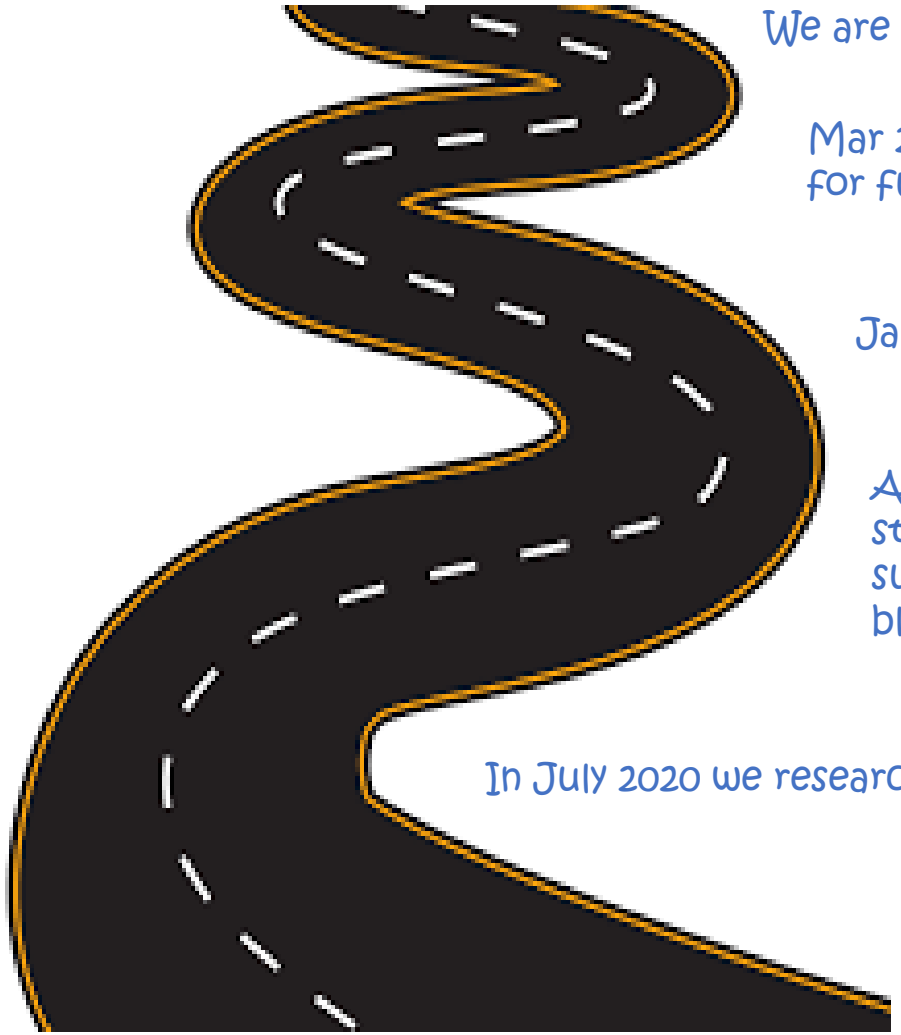
Memory at Pinewood – where we started, where we are now



We are now confident in using a range of strategies to improve children's long term memory.

Mar 2021 – review of developing memory training in school, what's going well? Support for future steps in developing memory skills and reducing cognitive load.

Jan 2021 – developing memory skills training. Assessing what we are doing and next steps.

As part of our Oct INSET we reflected how we were using different memory strategies in our teaching and learning. We needed refresher training following the summer term lockdown and the autumn term responding to lockdown, catch up and blended learning.

In July 2020 we researched knowledge organisers and planned these for our forthcoming Autumn term topics.

We started thinking about the working memory and the cognitive load in Feb 2020. We looked at 6 strategies to support memory training including dual coding and retrieval practice.

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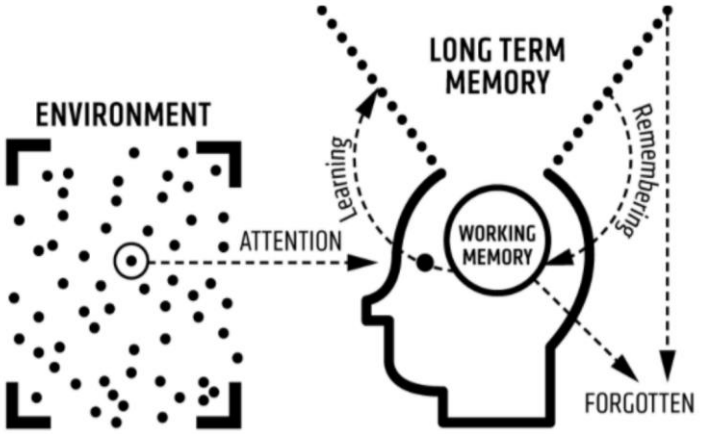
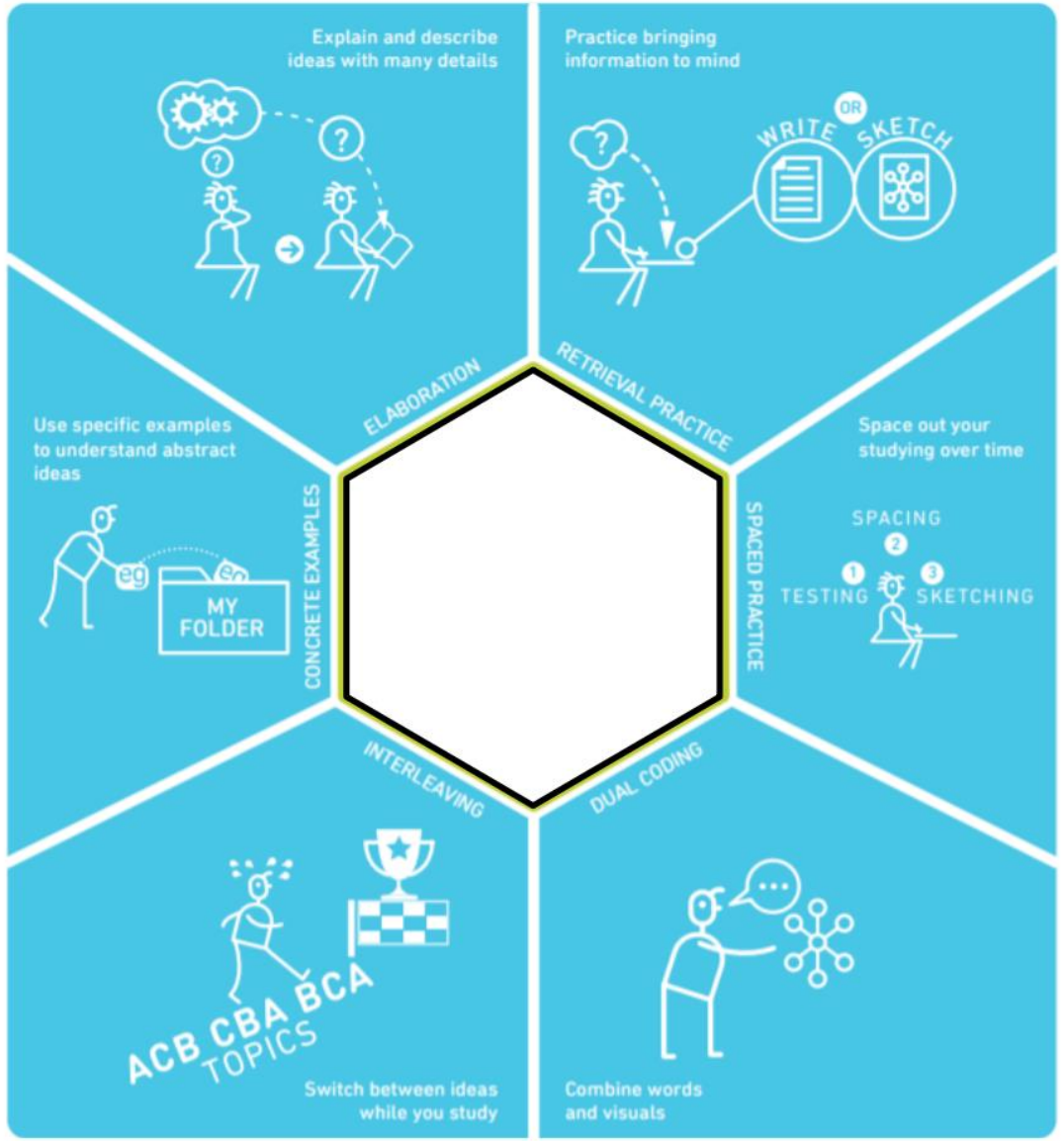


We have to revisit what we have learnt in our working memory to ensure that it is not forgotten.

How we can develop memory skills:

- Dual coding
- Worked examples
- Retrieval practice
- Spaced practice
- Interleaving
- Elaboration



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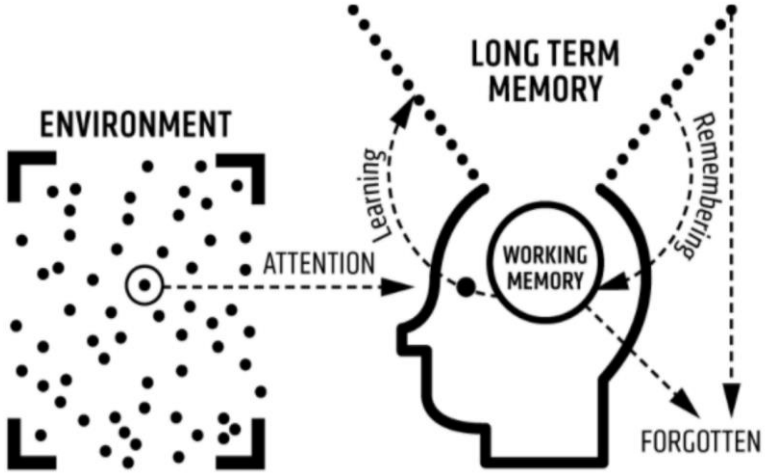
Memory at Pinewood



By revisiting what we have learnt in our working memory we are committing it to our long term memory.

To develop memory skills we want to 'lock learning into the long term memory'.

We do this by using a range of these strategies :

- Dual coding – using a combination of pictures and text
- Worked examples – modelling and using concrete examples to work through with children
- Retrieval practice – practicing recalling previous learning
- Spaced practice – revisiting previous learning at a later date
- Interleaving – switching between ideas and topics as we learn
- Elaboration – explaining and describing ideas/ methods with more detail

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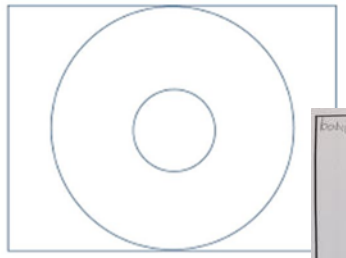
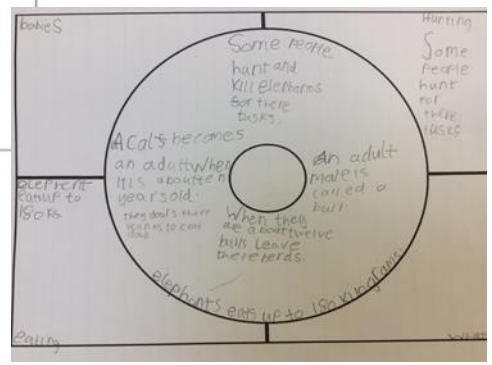
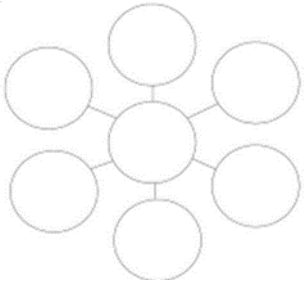
Memory at Pinewood

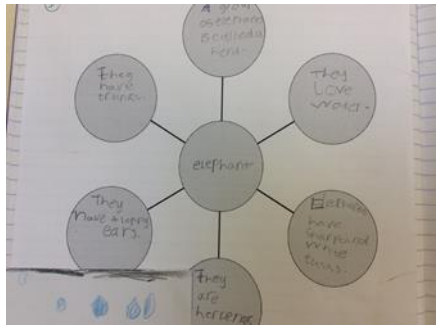
Dual Coding methods and examples



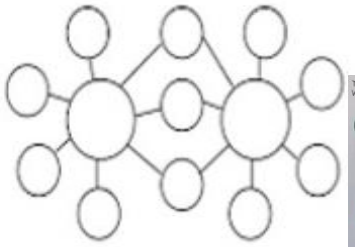


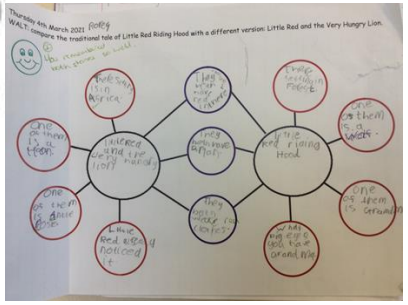
Circle map



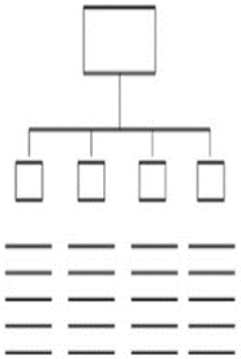


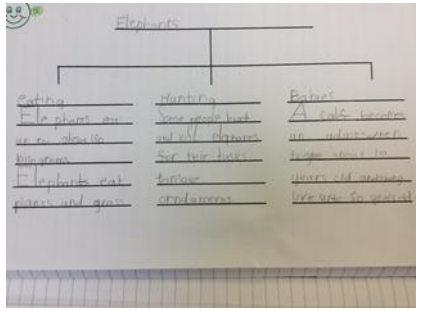
Bubble map



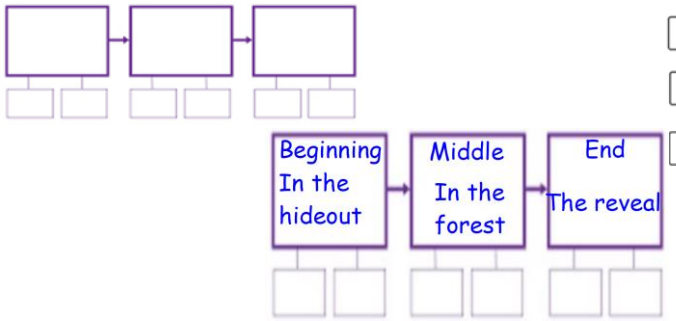


Double bubble map

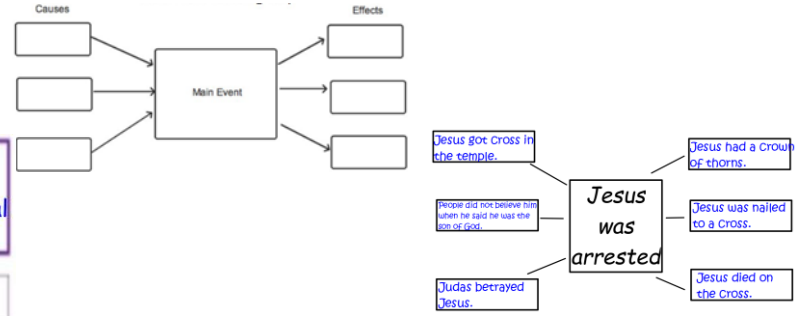




Tree map



Flow map



Multi-flow thinking map

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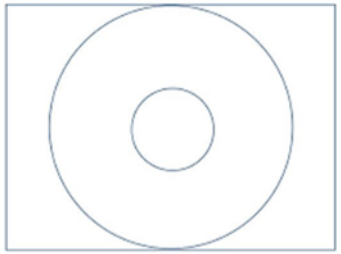
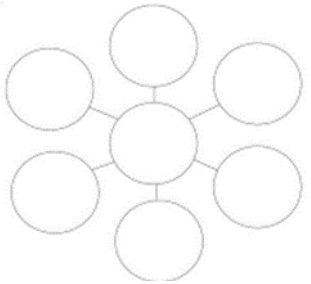
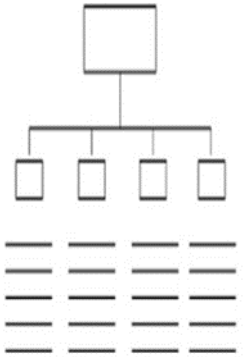
Memory at Pinewood



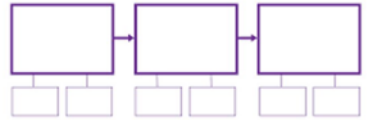


When we will introduce different types of dual coding:



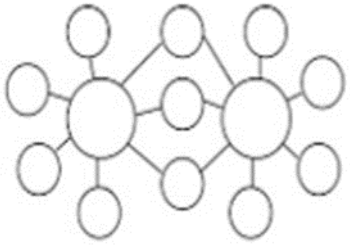
Circle maps at start of all topics

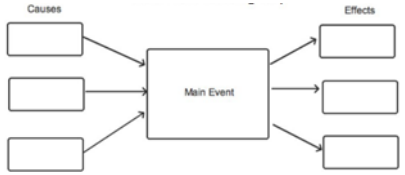
EYFS: circle maps (topic work and begin to show organisation into 4 corners) 2 circle maps with gap in the middle to compare which will lead into double bubble map later in school, bubble maps, tree maps for writing, sequencing map for understanding of the world



Year 1: circle map, bubble map, tree map, sequencing flow chart (model through stories)

Year 2: All above plus double bubble map for character comparisons, multi flow thinking map for causes-main event-effects





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Memory at Pinewood

Worked examples:

- Show 3 answers – which is right?
  - which is the best answer?
  - why?
- Order 3 pieces of writing – which is the best? The 2nd best?
  - why?
- Show step 1 of a problem – what do I need to do next?

Which is the correct answer?

Addition Word Problem Challenge Cards ★★★

Sophie and Ted are collecting football stickers. Ted had 25 football stickers. Sophie has 36.

How many do they have in total?

A. 55 B. 61 C. 60

Which of these sentences is the best?

Lila felt the rain on her foot then her face she had done it

When Lila felt the rain on her face she cried with joy.

The rain splash on lilas face which made her smile.

28 + 14 = ?

Step 1: draw the tens and ones

Step 2:

Some of these are incorrect, can you draw a correct representation?

3 × 5

4 × 4

6 × 2

1 × 8

Which of these sentences do you like the best and why?

The raindrops fell like tears crying from the sky.

Suddenly all around there was a soft pitter patter.

Large drops of water poured heavily from the dark clouds.

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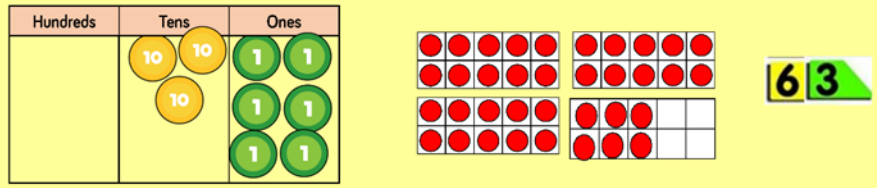
Memory at Pinewood

Retrieval Practise

Quizzes
Multiple choice questions
Odd one out
True/false
Cloze activity
Draw or write what you know about.....
Tell your friend 5 things about.....
Partially completed concept map
Order events (story or real events)

Odd one out



Which is the correct answer?

Addition Word Problem Challenge Cards ★★★

Sophie and Ted are collecting football stickers. Ted had 25 football stickers. Sophie has 36.

How many do they have in total?

A. 55 B. 61 C. 60

Can you think of 5 facts from yesterday's history lesson about Grace Darling?

It is very _____ in church.

I fell _____ the chair.

I _____ my race yesterday.

I have a bag ___ apples.

There are _____ a lot of sweets.

I have _____ dog and two cats.




What is the correct sequence?

True or False

3 + 7 = 10
3 + 8 = 10
1 + 9 = 10
4 + 4 = 16

13 + 6 = 20
14 + 6 = 20
8 + 8 = 15
7 = 7 = 14

2 TRUTHS AND 1 LIE

23

1. This number is 20+3
2. This number is 10+14
3. This number is made up of 2 tens and 3 ones

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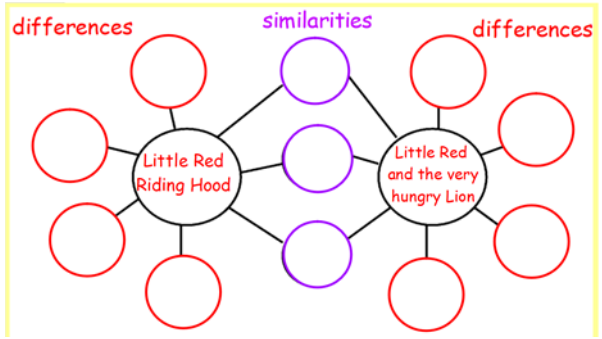

Comparison of a new story with a previously studied story.

Spellings previously spelt incorrectly.

Memory at Pinewood

Spaced practise

Make connections to previous learning.
Previous topics/ books
Topics from previous years
Previous mini topic eg. Science topic
Spellings/ key words - spaced practice in spelling
Quizzes
Homework tasks
Big book – use to revisit previous stories/ topics
Assemblies

WALT: Make 2D or 3D shapes

Warm up your maths brain by reminding yourself of 2D/3D shapes and playing some 2D and 3D memory shape games with Mrs Cooper. Follow the youtube link:
https://youtu.be/mkBVCGJEiKM

What is a homophone?

How many can you remember?

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Africa topic		Water topic	
The leopard's drum	narrative	Bog baby	Recount - diary
African animals	Non-chronological report	The storm whale	instructions
Lila and the rain	poetry	Song of the river	Recount - letter
Little red and the hungry lion	narrative	Grace the lighthouse cat	narrative
		Grace Darling	Non chronological report

Memory at Pinewood

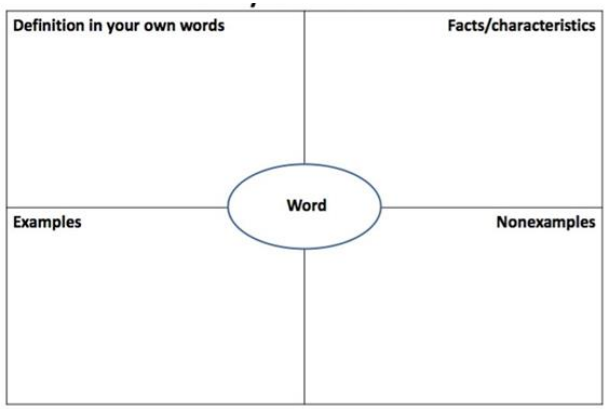
Interleaving

Mixes the practice of several related skills
Eg. place value, addition, subtraction
- narratives, poetry, non-fiction

Elaboration

Explaining why or how

We can use lots of strategies already mentioned eg. True or false, odd one out, multiple choice where the emphasis
is on explaining <u>why and how we know</u>



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Memory at Pinewood

What does memory look like at Pinewood?

Memory games
A range of dual coding methods
Visual lesson starters for foundation subjects
Daily retrieval practice
Consolidation of learning
Connections to previous learning
End of the week quizzes
Guided practice/ modelling
Memory techniques identified on teachers' planning

Staff continuing Professional Development
Termly staff meetings to reflect, share good practice and cascade ideas and training to all staff.
Monitoring of memory skills used throughout teaching and learning through planning scrutiny.

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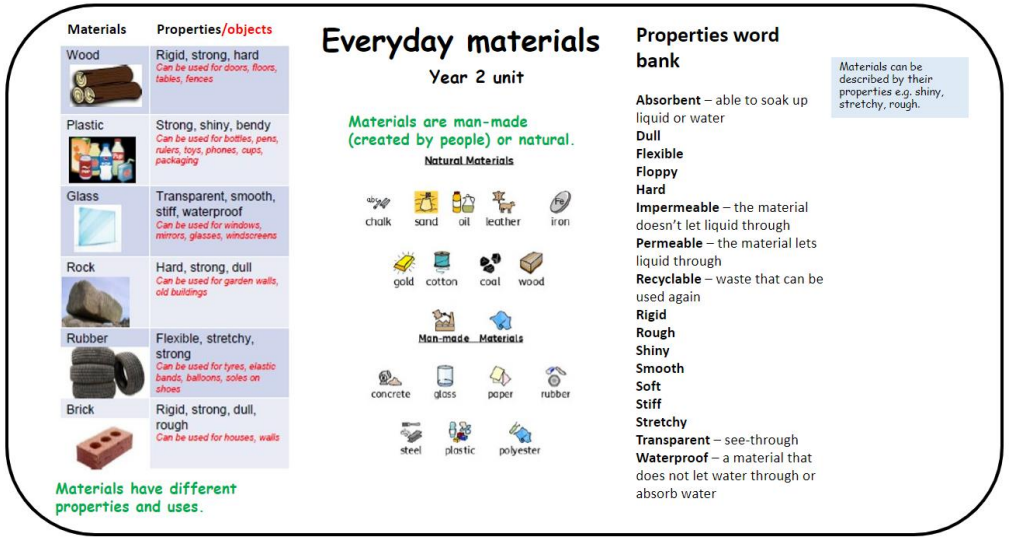
Memory at Pinewood

Knowledge organisers

As part of our working practice on memory we researched and trialled making and using knowledge organisers for different topics and some specific subjects. Following the trial across school we decided to prioritise the methods previously described with the intention of reintroducing knowledge organisers in the future where they are particularly required to support specified topic areas.



Materials	Properties/objects
Wood	Rigid, strong, hard *Can be used for doors, floors, tables, fences*
Plastic	Strong, shiny, bendy *Can be used for bottles, pens, rulers, toys, phones, cups, packaging*
Glass	Transparent, smooth, stiff, waterproof *Can be used for windows, mirrors, glasses, windscreens*
Rock	Hard, strong, dull *Can be used for garden walls, old buildings*
Rubber	Flexible, stretchy, strong *Can be used for tyres, elastic bands, balloons, soles on shoes*
Brick	Rigid, strong, dull, rough *Can be used for houses, walls*

Materials have different properties and uses.

Everyday materials

Year 2 unit

Materials are man-made (created by people) or natural.

Natural Materials

chalk, sand, oil, leather, iron

gold, cotton, coal, wood

Man-made Materials

concrete, glass, paper, rubber

steel, plastic, polyester

Properties word bank

Materials can be described by their properties e.g. shiny, stretchy, rough.

Absorbent – able to soak up liquid or water
Dull
Flexible
Floppy
Hard
Impermeable – the material doesn't let liquid through
Permeable – the material lets liquid through
Recyclable – waste that can be used again
Rigid
Rough
Shiny
Smooth
Soft
Stiff
Stretchy
Transparent – see-through
Waterproof – a material that does not let water through or absorb water

Spoons – A spoon can be made from plastic, metal or wood

Shoes – A shoe can be made from leather, fabric or rubber

Gloves – A gloves can be made from leather, wool or rubber

Cups – A cup can be made from plastic, paper or glass

Objects can be made using different materials and have different uses.

All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. Some materials e.g. plastic can be in different forms with very different properties.

Materials are chosen because they have properties for the task. For example a water bottle is made of plastic because it is transparent and waterproof so it holds water.

Some materials can change shape by squashing, bending, stretching, rolling, pressing.

Squashing – Crushing something so that it becomes flat, soft or out of shape

Bending – Changing a straight object so that it is curved

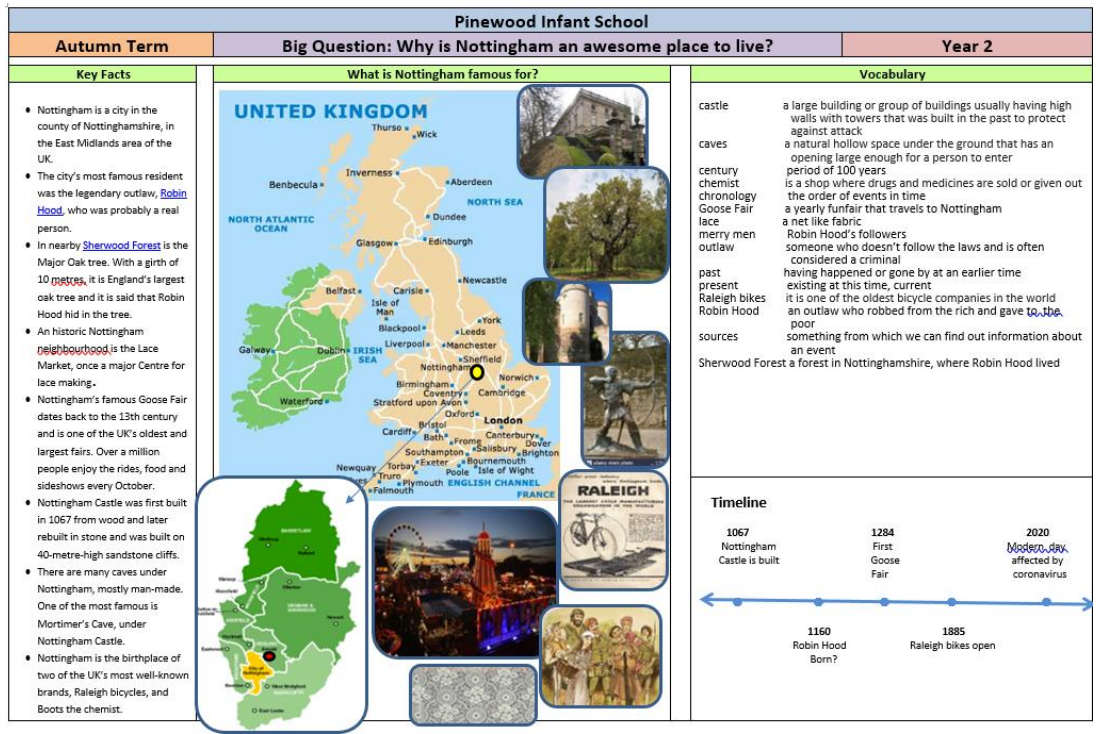
Twisting – Changing the shape of an object by turning it

Stretching – Made longer or wider without tearing or breaking

Materials word bank

Material - the stuff an object is made out of
Man-made - materials created and made by people
Natural - something that has come from animals, plants or the earth
Particles - tiny bits of matter that make up an object
Properties - the qualities that belong to something to make it recognisable

There are three states of matter called solid, liquid and gas



Pinewood Infant School

Autumn Term	Big Question: Why is Nottingham an awesome place to live?	Year 2

Key Facts

- Nottingham is a city in the county of Nottinghamshire, in the East Midlands area of the UK.
- The city's most famous resident was the legendary outlaw, Robin Hood, who was probably a real person.
- In nearby Sherwood Forest is the Major Oak tree. With a girth of 10 metres, it is England's largest oak tree and it is said that Robin Hood hid in the tree.
- An historic Nottingham neighbourhood is the Lace Market, once a major Centre for lace making.
- Nottingham's famous Goose Fair dates back to the 13th century and is one of the UK's oldest and largest fairs. Over a million people enjoy the rides, food and sideshows every October.
- Nottingham Castle was first built in 1067 from wood and later rebuilt in stone and was built on 40-metre-high sandstone cliffs.
- There are many caves under Nottingham, mostly man-made. One of the most famous is Mortimer's Cave, under Nottingham Castle.
- Nottingham is the birthplace of two of the UK's most well-known brands, Raleigh bicycles, and Boots the chemist.

What is Nottingham famous for?

Vocabulary

castle	a large building or group of buildings usually having high walls with towers that was built in the past to protect against attack
caves	a natural hollow space under the ground that has an opening large enough for a person to enter
century	period of 100 years
chemist	is a shop where drugs and medicines are sold or given out
chronology	the order of events in time
Goose Fair	a yearly funfair that travels to Nottingham
lace	a net like fabric
merry men	Robin Hood's followers
outlaw	someone who doesn't follow the laws and is often considered a criminal
past	having happened or gone by at an earlier time
present	existing at this time, current
Raleigh bikes	it is one of the oldest bicycle companies in the world
Robin Hood	an outlaw who robbed from the rich and gave to the poor
sources	something from which we can find out information about an event
Sherwood Forest	a forest in Nottinghamshire, where Robin Hood lived

Timeline

1067 Nottingham Castle is built

1160 Robin Hood Born?

1284 First Goose Fair

1885 Raleigh bikes open

2020 Modern day affected by coronavirus