Teaching Retrieval

What is retrieval?

Key Stage 1: 1b) Identify / explain key aspects of fiction and non-fiction texts, such as characters, events, titles and information.

Key Stage 2: 2b) Retrieve and record information / identify key details from fiction and non-fiction.

The verb 'retrieve' is the root word of the noun 'retrieval', which is defined as 'the process of obtaining or extracting information or material'.

Oxford Dictionary, 2019

Retrieving information in a primary setting could be from any of the following sources:

- Fiction/non-fiction texts
- Pictorial images/ photographs
- Song lyrics
- Poetry
- Environmental surrounding

'Retrieval' as a reading domain demonstrates how you can use specific skills to identify and record important information from a source. Retrieval is often seen as the most significant reading skill and needs to be taught and practised regularly before effectively delving deeper into a text, inferring and comparing. Strong retrieval skills are essential for confident and effective comprehension and should be practised daily, whether part of oral questioning in lessons or within a written activity.

Within KS1, children must be able to *'identify/explain key aspects of fiction/non-fiction texts.'*

Within KS2, children must be able to '*retrieve/record information and identify key details from fiction/non-fiction.'*

National Curriculum, 2014

The skill

Children must have a good understanding of a text to allow them to correctly and accurately retrieve information from it. Success at retrieving requires pupils to understand that the skill is to find 'literal' information from the text or clearly evident in images. The expectation is to find **exactly** what is requested and the answer will **always** be within the text or picture.

For example:

> There was a young girl who lived with her Grandparents, her name was Lucy.
>
> *Question*: What is the name of the young girl?
>
> *Answer*: Lucy
>
> The key detail to be identified here is a name.

Retrieving information from a text can often be quite challenging. Instead of trying to locate the literal answer, children might instead try to remember the information they have just read or if they are already familiar with the subject, use prior knowledge or inference to answer questions.

For example:

A child with a particular interest in dinosaurs might often read and watch videos about them at home. In school, presented with an information text about dinosaurs, he or she may be tempted to answer questions based on prior knowledge instead of using the information provided.

Children should always be encouraged to retrieve information from a text rather than applying their own knowledge or drawing their own conclusion. To develop and encourage this skill, try playing ''fastest finger first", a game in which children must quickly locate and put their finger physically on a piece of information within a text.

It is important to recognise that to retrieve specific information, pupils may also need to apply additional reading skills, such as inference or defining, to more effectively access and understand that information.

The strategies:

There are a number of strategies available to support children retrieving information from a text. Each one should be modelled by the teacher and the children given the opportunity to practise and apply these skills daily in a range of contexts, across the curriculum and in everyday reading.

It is recommended that before pupils are asked to retrieve any information from a text that they have read it properly and have a general understanding. However, once pupils are confident with retrieval, skimming is an important skill to develop.

1. Identifying key words to answer the question correctly:

It is important that teachers model what a "key word" is within a question, explaining both the concept and the question explicitly and also demonstrating how to identify the "key word" by removing unnecessary information. A firm understanding of this concept is essential to enable children to successfully scan a text.

Teachers may use the following steps when modelling the identification of key words:

- Read the question to the class and discuss what they think the question is actually asking.
- Model how you are thinking about the subject of the question and how you are trying to ignore your prior subject knowledge. Explain the importance of reference to the text in question.
- Re-read the question, selecting potential 'key words' to consider. Explain what information you think is unnecessary to provide the answer.
- Scan the text for these key words or concept and underline them. Use sub-headings or diagrams if necessary to guide you to the information quicker.
- Read around the words to help understand their context.
- Find the specific information needed within the section and underline it.
- Check that the information answers your question.

For example:

The children are faced with an extract from "The World's Tallest Mountains", which is an information text about different mountains, each paragraph has a sub-heading stating which mountain the contents is about.

Question: "What is the height, above sea-level, of Mount Kilimanjaro located in Tanzania? "

- The intention is to identify the height of Mount Kilimanjaro in Tanzania

- Prior knowledge tells me that Mount Kilimanjaro is one of the tallest mountains in the world and must be several thousand meters high, but I should still scan the text for an exact height.

- The key words must include 'height' because that is the only reference to size; I will need to find a measurement. However, 'Mount Kilimanjaro' is also key because I want to know the height of this mountain in particular, not any other. Is Tanzania a 'key word'? Do we need to know where the mountain is located to answer the question? Is there more than one mountain named 'Mount Kilimanjaro' in the world? No, so this is irrelevant. I am not sure what 'above sea level' means, so I will not discount this information.

- I will 'scan' the text to quickly identify the words 'Mount Kilimanjaro' and a height. I know this will be in a unit that measures size. This could be located under the sub-heading 'Facts about Kilimanjaro', so I will look here first, as all the other paragraphs are about other mountains.

- I have located the words within this sentence and underlined them "Mount Kilimanjaro's height is about 4,900 metres from its base and 5,895 metres above sea level" This is the Kilimanjaro height written on the sign at Uhuru Peak itself."

- I will now read the sentence out loud to ensure I understand it.

- Yes, this sentence definitely tells me the height of Mount Kilimanjaro.

- I will now highlight the specific information I need: 'Mount Kilimanjaro's height is 5895 metres above sea level. This is the Kilimanjaro height written on the sign at Uhuru Peak itself.'

- I know I do not need any of the other information from the sentence as it doesn't tell me anything extra about the height. I can ignore the first height of 4,900 metres because that is the height from its base and not from sea-level. So 'above sea level' were key words after all.

- Does this information answer my question? Question: "What is the height, above sea-level, of Mount Kilimanjaro located in Tanzania? " Yes it does, 5895 meters tells me the height of the mountain above sea level and it gives it in units of size.

2. Skimming and scanning

When pupils are asked to retrieve information, they are then not expected to re-read entire extracts in order to do so. Pupils need to be taught how to **'skim' and 'scan'** to quickly identify relevant information within a text.

Skimming and scanning are reading techniques that use rapid eye movement to move quickly through a text to identify key words. The two strategies should be taught separately.

Skimming involves reading rapidly in order to get a general overview of the material. This allows pupils to gain a brief understanding of the content of each paragraph and allows them to predict where specific details might be within the text when they attempt to locate them later.

To model how to skim effectively, it is useful to teach pupils how to understand what might be within a paragraph without reading all of it. This could be by just providing the first line of the paragraph, title or sub-heading. Discuss what the children can see and encourage them to use this small piece of information to 'get the gist' of the paragraph. They could then label paragraphs to remind them of their content as they become more confident.

Skimming can be particularly useful within non-fiction texts. Pupils also need to be aware of where information might be located within a text and need to be taught the importance of layout and features such as sub-headings, diagrams and captions that indicate where relevant information might be. These need identifying first before searching for the detailed information.

Scanning is reading rapidly in order to identify specific facts and key words. It is good practice to model a systematic approach to scan every line of the text so that children do not miss any information and also so that the information is still understandable.

Teachers must model these techniques before children practise and apply them.

There are many activities pupils can participate in to build skills and confidence in scanning a text. An effective way to develop speed would be to initiate a 'race' to find specific words the quickest or use Where's Wally style picture puzzles encouraging systematic scanning.

Activities

The following activities will support children to embed how to retrieve information and key details efficiently.

General activities:

- I can see…
- Drawing the scene/setting/character – labels in boxes
- Ordering/sequencing
- True or false
- Multiple choice answers
- Hot seating characters e.g. police interview with Goldilocks – which bed did you sleep in?
- Drama – reconstruct the scene as accurately as possible
- Work on skimming and scanning as a part of this – Where's Wally?; busy pictures; skimming a film; word searches; word category hunt; time limits
- Matching games
- Relay – recreate picture
- Role on the wall – collect information about a character from a text
- What do I know for certain?/How do I know?
- Create a timeline of the story

Skill: Scanning for information:

- **Fastest finger first**
  Children find a particular word as quickly as they can and put their finger on it. These can be focused on key words from texts and other curriculum areas. You can also use this with texts.

broccoli	April	swimming	blouse	sweetcorn	Uranus	suit	November
trousers	onion	rhino	Earth	happy	gymnastics	satsuma	orange
raspberry	tiger	shorts	clementine	t-shirt	alpaca	cardigan	leek
jumper	pig	Wednesday	August	cat	gloves	Friday	kayaking
Monday	Pluto	loved	hat	hockey	Mars	black	leopard
ecstatic	gold	badger	Jupiter	beetroot	jacket	March	panda
fox	September	culottes	netball	grey	blue	sailing	Saturday
Neptune	strawberry	Winter	blackberry	skirt	dog	Summer	canoeing
tomato	green	shirt	rugby	pineapple	coat	sad	kiwi
July	basketball	melon	cucumber	zebra	Tuesday	riding	June
pink	mango	red	diving	cycling	dress	orange	brown
Autumn	Venus	carrot	goat	Spring	sheep	cheetah	parsnip
elephant	hurdles	December	purple	January	worried	rabbit	Mercury
anxious	pea	hare	giraffe	scarf	white	tights	socks
football	lion	banana	high jump	tangerine	potato	Saturn	blueberry
aubergine	angry	sprint	discus	silver	long jump	shoes	lacrosse
javelin	Sunday	February	Thursday	October	llama	May	cow

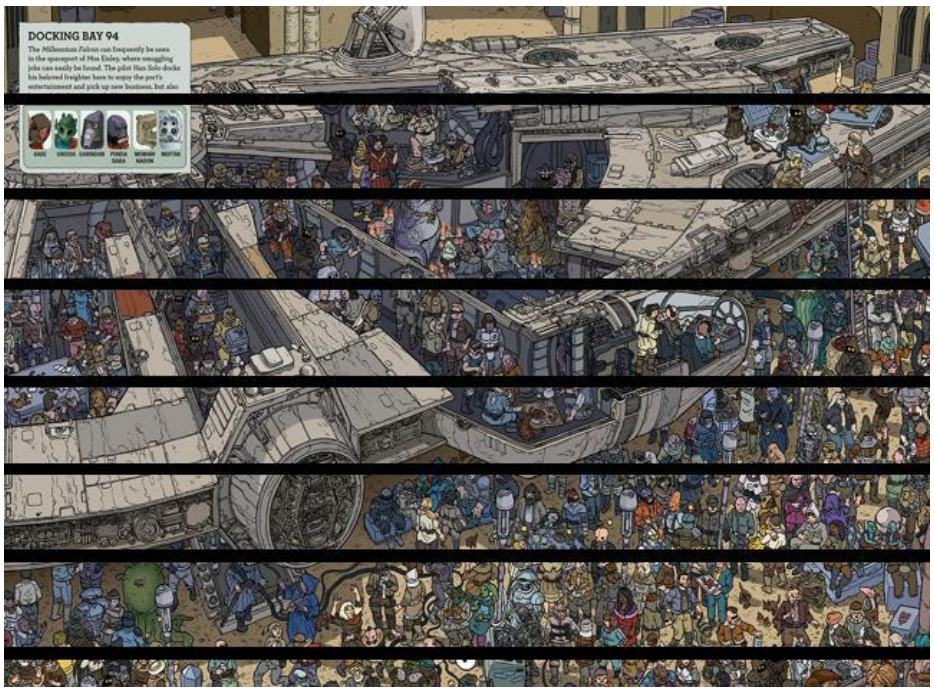
Phoneme Spotter Story: 'a' ,'ai', 'ay', 'a_e', 'ey', 'eigh'

I can find sounds that say 'A'

1. Highlight, or underline, the words that contain the 'A' sound:

Jane was feeling very frustrated one day. Standing in the kitchen while she tried to bake a cake, her little baby Jay-Jay wouldn't stop complaining! Clawing at her apron (and painting her with trails of food and dirt), he wailed and howled and then wailed some more. Jane tried to check the weight of the flour; Jay-Jay wailed. Jane tried to shake off the floury trails

- **Using Where's Wally style puzzles**
  Use lines to encourage children to systematically scan the image to find the information. Apply the same skill to texts.



- **Spot the difference**
  Use lines to encourage children to systematically scan the image to find the information. You can also do this with text.

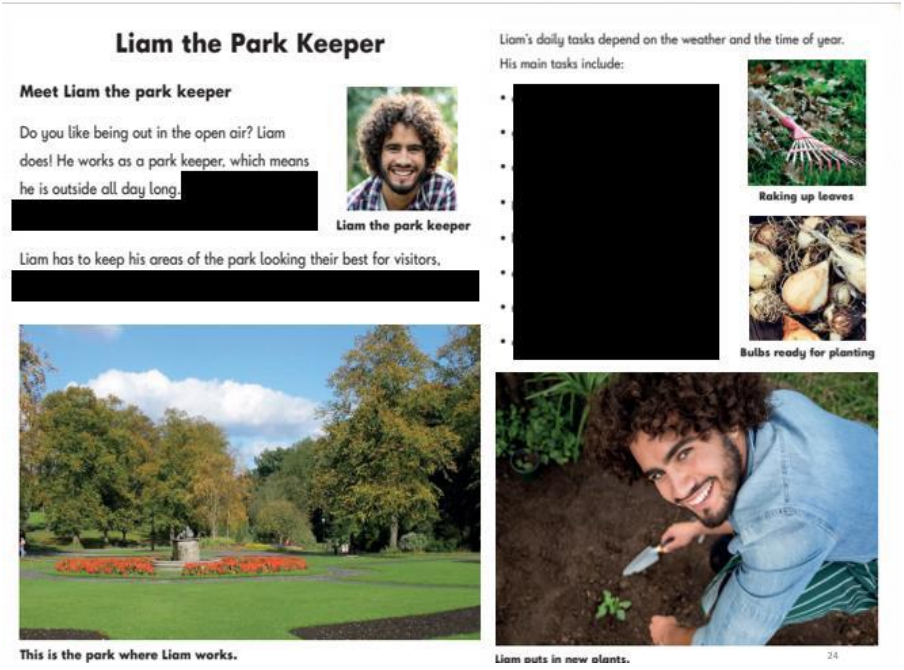
- **Eye Spy**
  Use art or other images to play eye spy, again encouraging children to systematically scan the image for information.

Skill: Skimming the text for the main idea

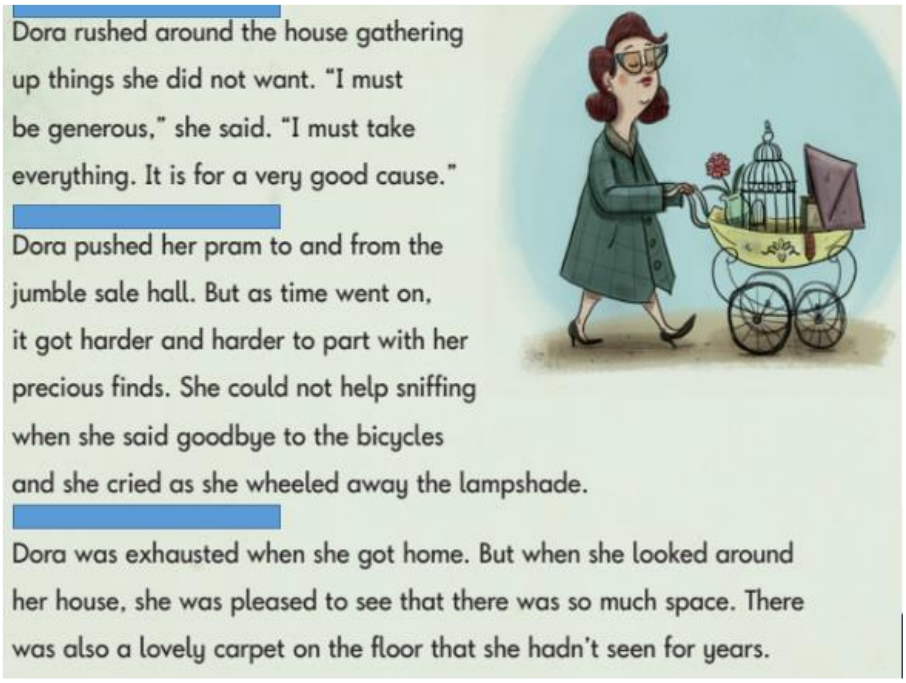
- **How many?**
  Challenge children to find how many of something there is in a text, e.g. how many red words?

broccoli	April	swimming	blouse	sweetcorn	Uranus	suit	November
trousers	onion	rhino	Earth	happy	gymnastics	satsuma	orange
raspberry	tiger	shorts	clementine	t-shirt	alpaca	cardigan	leek
jumper	pig	Wednesday	August	cat	gloves	Friday	kayaking
Monday	Pluto	loved	hat	hockey	Mars	black	leopard
ecstatic	gold	badger	Jupiter	beetroot	jacket	March	panda
fox	September	culottes	netball	grey	blue	sailing	Saturday
Neptune	strawberry	Winter	blackberry	skirt	dog	Summer	canoeing
tomato	green	shirt	rugby	pineapple	coat	sad	kiwi
July	basketball	melon	cucumber	zebra	Tuesday	riding	June
pink	mango	red	diving	cycling	dress	orange	brown
Autumn	Venus	carrot	goat	Spring	sheep	cheetah	parsnip
elephant	hurdles	December	purple	January	worried	rabbit	Mercury
anxious	pea	hare	giraffe	scarf	white	tights	socks
football	lion	banana	high jump	tangerine	potato	Saturn	blueberry
aubergine	angry	sprint	discus	silver	long jump	shoes	lacrosse
javelin	Sunday	February	Thursday	October	llama	May	cow

- **Black out**
  Black out text leaving the subheading or first line for children to 'get the gist of paragraph'.



- **Summary captions**
  Enable children to write a summary caption per paragraph to help remember when specific information might be in a text.



Skill: Referring to the organisational features

- Use subheadings, diagrams, bullet points and captions to help retrieve information and understand where information might be.

Skills Ladders

Use the skills ladders for KS1 and KS2 to support children to use their retrieval knowledge when discussing texts.

Key Stage 1

Identify the things you are looking for:
Key concept or question words.

Skim the text to find the part the concept relates to.

Re-read that part of the text.

Scan the text to find what you're looking for.

Retrieve the information.

Check using 'fastest finger first'.

Retrieve

1b
Identify and explain key aspects of fiction and non-fiction texts such as characters, events, titles and information

Key Stage 2:

Identify the things you are looking for:
- Key words
- Key concept
- Question words

Think of possible synonyms the text may use instead.

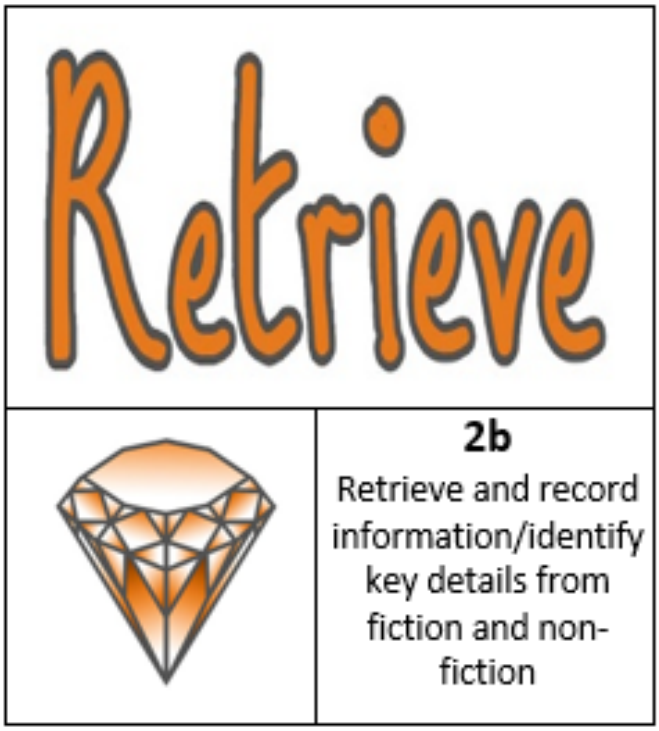
Skim the text to find the part the concept relates to.

Re-read that part of the text and read around it.

Scan that part of the text to find what you're looking for.

Retrieve the information.

Check using 'fastest finger first'.



Questioning

To retrieve information from a text, pupils need to be able to read and decode the majority of the vocabulary used. However, pictures and images can be used in the early years to introduce this skill and ask questions orally.

Key words in retrieval questions are:

'Who, what, where, why, when, which, how'

Questions often start with these words and they usually relate to the key words. These words help indicate the information to search for, whether it is a person, a place or a time for example and they must be unambiguous as must the type of answer required.

For example:

Question examples:

1. How many mushrooms are in the picture?
2. What is the bigger mushroom **holding** in his hands?

Retrieval questions can be asked in many different ways such as

Who/ what/ where/ why/ when/ which/ how _____

Give two…

According to the text…

Find and copy…

Draw lines to match each statement…

Tick to show whether the statement is true or false.

Give one example of _____

It is important to teach children to identify how many details they are being asked for within one question as retrieval questions often ask for more than one piece of information.

For example:

Question: How many mushrooms are in the picture and where are they?

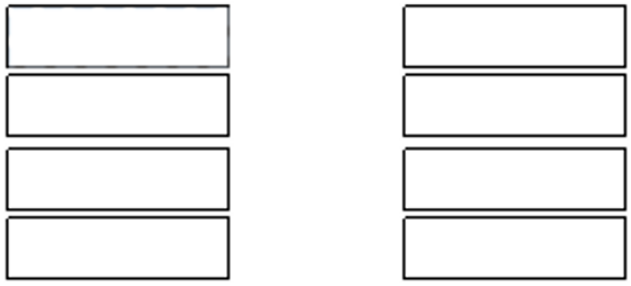
Here the reader would be expected to give a number of mushrooms and a place.

Questions can be asked and represented in a number of different ways which may need explicitly modelling. Pupils need to be able to practise applying retrieval skills in a variety of different ways, within different contexts and also recording answers by a range of different graphical representations, e.g. tick boxes, matching and true/false.

Tick to say whether each statement is true or false.

	True	False

The first one has been done for you.



The quality of answers expected:

Questions should be explicit and require a specific answer. The answer should be found in the text. Children should always be able to show where in the text their response is taken from.