KS2 Reading and Mathematics Tests: Preparation and Techniques for Year 6 Teachers

Guidance, ideas, and approaches to support Year 6 teachers to enable their pupils to achieve the best they can.

Norfolk County Council

Contents

Introduction

Once again, we are at that time of year where we begin to make plans to prepare our pupils for the end of Key Stage 2 National curriculum tests so that they can approach them with confidence and achieve their best. Whilst the cornerstone of effective learning in English and mathematics will always be good subject knowledge that is acquired through the rich learning experiences throughout the primary years, we know that it is also important to support our learners with strategies to use when faced with a test experience.

The tests can be a challenge for some of our pupils, and this year we may feel that the challenge is even greater: with knowledge gaps created or exacerbated by the COVID pandemic; with perhaps lower levels of reading stamina and fluency; and pupils may not be as resilient as in previous years and may need support with developing self-regulation strategies to help them to plan how to tackle the tests. Whether you're a long-standing teacher in year 6, or new to teaching in year 6, we hope that this short booklet might help you and your pupils in the run up to the tests.

We have included some approaches, ideas and straightforward tips, to support you over the coming months and in the final weeks in the run up to the tests.

Preparation

Enabling all to understand the expectations of the tests

It is important that everyone in school understands the format of the reading and mathematics tests, so they can fully support the pupils taking the test and avoid any unnecessary worry. We also know that the partnership between home and school is so important to children's development and therefore you might find it useful to share some of key points about the format of the National Curriculum tests with parents. Many parents will want to help relieve any undue anxiety in the run up to SATs week, and others might like some ideas on how to help with extra practice at home.

Reading

There is only one paper for the reading test and pupils have 1 hour to read 3 texts and answer questions about them. The texts are a mixture of age-appropriate fiction, non-fiction and sometimes poetry which often contain links with subjects across the wider curriculum. The texts are organised in ascending order of complexity, with the first text being less complex than the final one. The questions within the paper are also organised in order of difficulty whilst maintaining the chronology of the text.

The questions that are asked throughout the paper are a mixture of multiple choice, short answer, and more extended answers which seek to test different domains of reading comprehension. It is sometimes tempting to view some of the short answer and multiple-choice questions as less demanding, but they have layers of complexity that are not always apparent at first glance.

The word count of the paper varies year on year, but historically has been in the range of 1500 to 2300 words and this can prove challenging for our pupils who are less fluent readers who may struggle with reading stamina and speed.

Most marks in the test are classed as retrieval or inference questions and the test seeks to measure children's reading fluency and comprehension that has built up over the whole of their reading lives.

Mathematics

The arithmetic paper focuses on calculations involving the four operations. The numbers used may include decimals up to two places and whole numbers with more than four digits; the calculations may also include percentages. Pupils are given 30 minutes to complete the paper and it consists of 36 questions; 32 questions worth one mark and four questions worth two marks; giving a total of 40 marks for this paper.

The two reasoning papers focus on questions that require pupils to apply their reasoning and problem-solving skills across the whole curriculum - including real-life everyday contexts. The questions will be a variety of multiple choice, method explanation, matching, and completing calculations. Each paper is given 40 minutes to complete and usually consists of 22-25 questions; with most questions worth one mark and a few with two or three marks; giving a total of 35 marks for each paper.

It is a myth that the questions start with more straightforward content and then get progressively harder through the paper. We know from the 2022 Paper 2 that question 1 was based on year 6 content, and that year 3 questions were found in the second half of both paper 2 and paper 3. Ensure pupils learn the skill of moving on and coming back, rather than spending large amounts of time on one question.

It is a KS2 test and not a year 6 test; over half of the content in the tests comes from the Years 3, 4 and 5 programmes of study. It is important to seek the help and support from teachers in these year groups as they will have a wealth of subject knowledge, teaching ideas and resources, which may help you. These materials can also be used by those providing 1-1/small group intervention sessions.

Making assessment purposeful

Taking time to unpick why pupils have gained marks or missed out on marks in assessments can be helpful to understand the learning that is embedded and the learning that is yet to be secured. Question Level Analysis (QLA) linked to any tests that you have completed can support you to pinpoint precise areas of mathematics and some aspects of reading that can help you to target support for individual or groups of pupils.

It is important to also say that any QLA also come with a health warning! Sometimes it is not the subject knowledge that is lacking, but the pupil's understanding of the wording of the question. For example, a pupil's response to a multiplication question which was answered incorrectly, may show that they have misunderstood the question due to the language, so the focus needs to be on vocabulary, and not, as we may have assumed, the multiplication strategy. Equally, when it comes to unpicking the reading domains for the reading paper, we can make assumptions that a so-called retrieval question is not testing the reader's ability to understand language, vocabulary and to draw upon their background knowledge of the subject. In fact, all of these skills are working together for the reader to comprehend the text, and therefore 'retrieve' the correct answer.

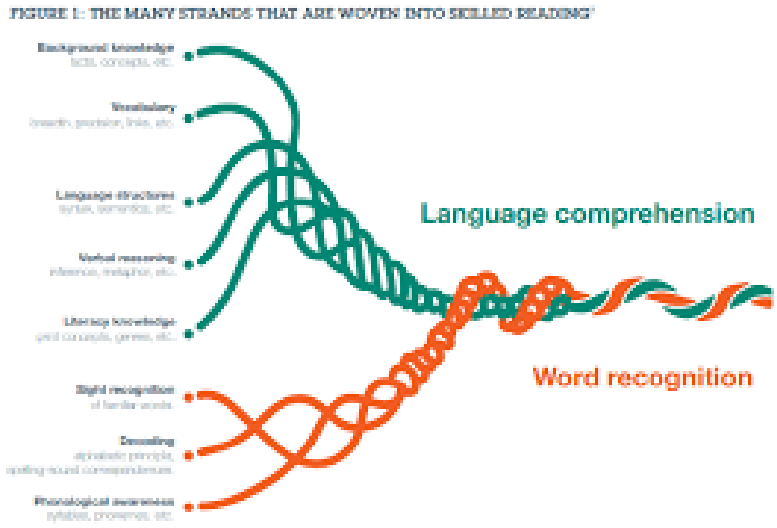
Without this more in-depth analysis, there is a danger a teacher may spend their time focussing on areas that pupils can already do well, to the detriment of not improving the areas they need to work on.

Focusing on the pertinent things

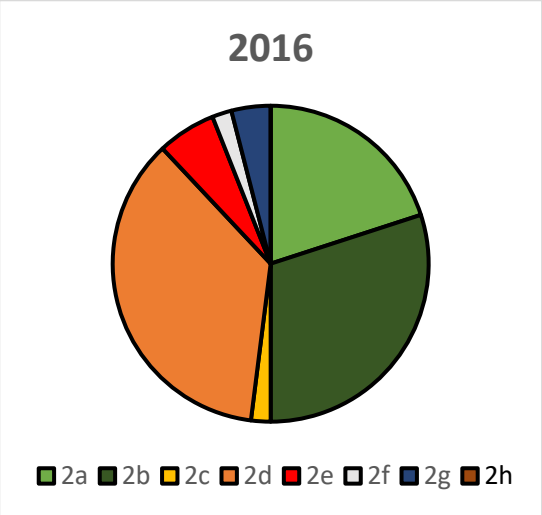
Analysis of previous KS2 test papers will give a clearer understanding of which areas and skills within the curriculum are being assessed and the proportion of marks allocated to different topics or skills. This is particularly valuable analysis for the maths papers.

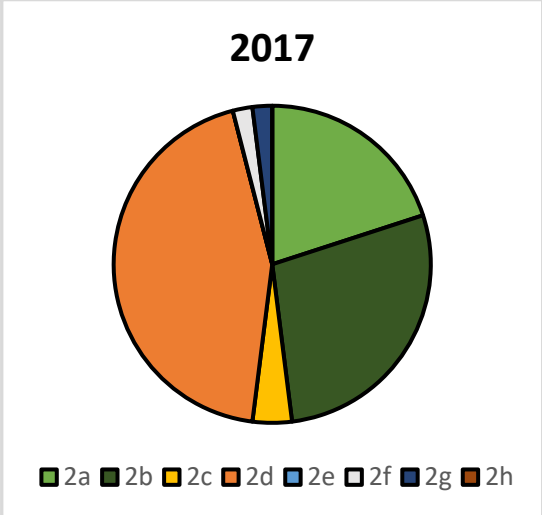
Reading

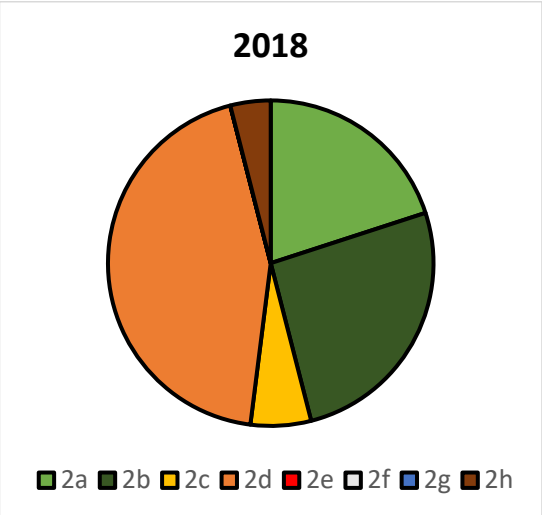
Unlocking meaning from a text requires a range of skills and strategies to be orchestrated simultaneously so it is often difficult to prioritise certain skills over others. The graphic taken from the previous EEF Guidance into KS2 Literacy of Scarborough's Reading Rope shows how these reading skills are all woven together and intertwine to support each other in the comprehension process. We need to have speedy recognition of the words through our sound phonic knowledge, but equally understand vocabulary, background knowledge and secure understanding of grammar in place to successfully comprehend what is read.

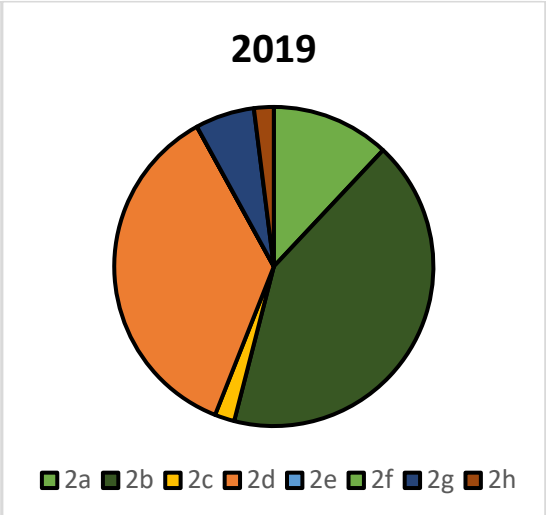


The analysis of previous SATs papers below shows that retrieval and inference and vocabulary are domains which have the most marks allocated to them in the reading paper. Remember, when unlocking the meaning of a text, whether it is labelled as a retrieval, inference, prediction, or a vocabulary question, children will always be drawing together all of their reading strategies and background knowledge to make meaning, so it is important that their reading curriculum enables them to have plenty of opportunities to work on all of these skills throughout their reading lives.









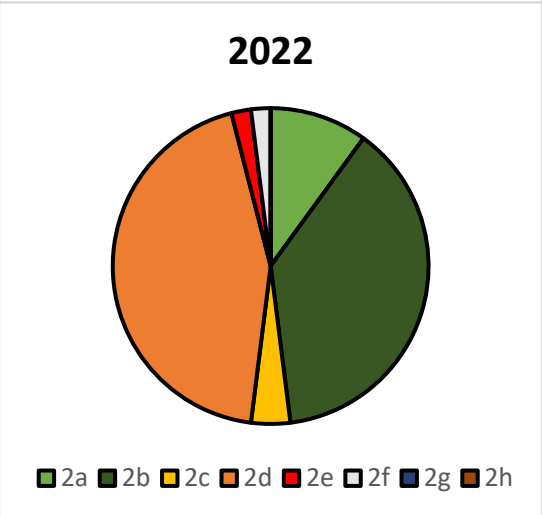
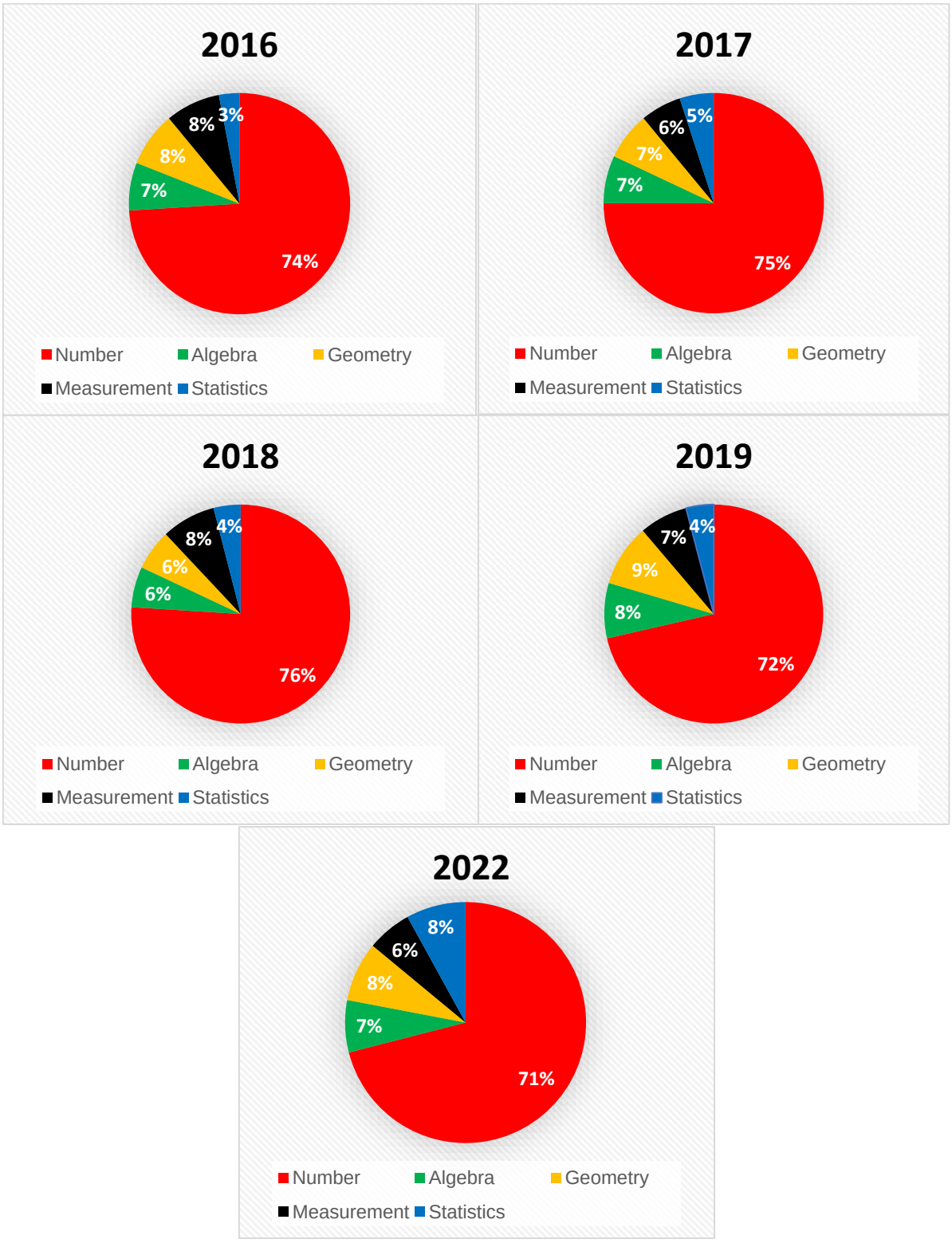


Table 2: Content domain relating to questions

	Content domain reference
2a	give / explain the meaning of words in context
2b	retrieve and record information / identify key details from fiction and non-fiction
2c	summarise main ideas from more than one paragraph
2d	make inferences from the text / explain and justify inferences with evidence from the text
2e	predict what might happen from details stated and implied
2f	identify / explain how information / narrative content is related and contributes to meaning as a whole
2g	identify / explain how meaning is enhanced through choice of words and phrases
2h	make comparisons within the text

Mathematics



The five main areas of the mathematics curriculum are not equally weighted in the test. Roughly three quarters of the test is based on number questions with the remaining four areas nearly equally weighted at around 7 percent each. Therefore, this needs to be taken into consideration when allocating teaching time over the year and during revision.

		2016	2017	2018	2019	2022
Number		74	74	76	72	71
	Place Value, Properties, Rounding	11	11	7	10	8
	Addition & Subtraction	11	9	9	8	9
	Multiplication & Division	23	20	31	22	23
	Negatives	2	0	2	0	0
	Decimals	12	12	7	12	9
	Fraction	11	14	15	13	15
	Percentage	2	3	4	4	5
	Ratio & Proportion	2	5	1	3	2
Algebra		7	7	6	8	7
	Construct & Solve Equations	6	3	2	4	4
	Substitution	1	2	3	0	3
	Sequences	0	2	1	4	0
Geometry		9	7	6	9	8
	Angles and Shapes properties	5	6	4	7	5
	Transformations	3	1	2	2	3
Measurement		8	7	8	7	6
	Perimeter, Area and Volume	2	4	1	4	2
	Measures	3	1	5	4	4
	Time	3	2	2	1	0
Statistics		3	5	4	4	8

This further breakdown again highlights the unequally weighting of marks allocated to each strand within each area. It is not surprising to see the larger proportion of marks being allocated to the fundamental strands of place value, the four operations, decimals, and fractions. As these are also the building blocks for nearly all other topics in the mathematics curriculum. Therefore, it is important to not only think carefully about time allocation but also the sequencing of these key topics, when considering planning of in class teaching as well as revision and interventions sessions.

Combining assessment knowledge with analysis available

Deciding which areas of the curriculum to prioritise over the coming months and weeks is not as simple as picking what you think is best, what the previous tests show, or even what the published revision programme you have purchased dictates.

For each pupil and collectively for the class, you will need to consider several points.

1) What are each of your pupils' current strengths and weaknesses? You can use information from previous termly assessments, in-class formative assessment activities and observations, along with Question Level Analysis (QLA) from the most recent tests, to create a clear picture of the learning that is embedded and the learning that is less secure.
2) For mathematics what are the associated year groups for each of the identified areas of development? As mathematics is a spiral subject, pupils need to master the lower year group objectives before moving onto the upper year group objectives.
3) For reading, can you identify pupils who might need some more practice and support with their reading stamina and fluency? Do they need more opportunities to reflect upon author's choice of language and to consider what this reveals about the topic or character in a text? Or do they need some extra practice to develop self-regulation strategies to help them to monitor their comprehension?
4) Use your subject knowledge, understanding of the test content, and your knowledge of your pupils' strengths and areas for development to help you focus on the topics to revisit before the KS2 Tests in May. You may want to consider the order in which you are going to teach these topics, how much time you are going allocate, and whether you will do this during whole-class teaching, interventions, or a mixture of the two.

You might like to complete the process with another year 6 teacher, subject leader or your headteacher.

Teaching Guidance, Ideas, and approaches over the coming months

Reading

As you know, reading comprehension builds over time and is supported by a rich reading curriculum, explicit teacher modelling and scaffolding to develop independent strategic readers who can draw upon their vocabulary and phonic knowledge alongside learning from a broad and balanced curriculum to unlock the meaning from texts. Often the best preparation for the test is to give pupils plenty of opportunities to read widely, read across the curriculum, and read for pleasure

Speaking and listening, responding, and disagreeing about books gives children the chance to explore their thinking, justify their ideas and deepen their understanding about what they are reading. Not only will this foster their love of reading but will equip them with experiences to draw upon when tackling the reading test.

Focus on Vocabulary

Pupils need to have a broad and deep understanding of vocabulary to be able to make inferences about what they are reading and unlock the meaning of a text. They also need to understand the meaning of the vocabulary that is used in some of the question stems in the reading text. In the section we will unpick some of this vocabulary and share some approaches.

It would be an impossible task to teach children all the words that they do not know, so it is important when we are supporting the children to extend and deepen their vocabulary that we are selective with the words that we choose to focus and linger on.

- Which words will the children not know?
- Which are essential to comprehending the text?
- Which would move their vocabulary on and be useful & relevant for children to know?
- Which words need to be explicitly taught to children and which will be acquired through implicit approaches?

It is also useful to explicitly model strategies for working out the meaning of a word in a reading passage or question stem using context clues, morphology and understanding of grammar and sentence structure.

If we want the new words to stick with our pupils, then we must ensure that there are plenty of opportunities for them to be able to practise and apply their learning. Research shows that you need around 15 to 20 repetitions and opportunities to articulate the sounds in a word before it becomes part of your word hoard. It is important that this involves using the word in different contexts as well as exploring instances when the word is being used incorrectly and is not conveying the intended meaning.

Exploring synonyms and the shades of meaning that we infer from language is an important part of unlocking the writer's intended meaning. Word explosions and associations can support this.

Focus on Self-regulation strategies and Active Reading

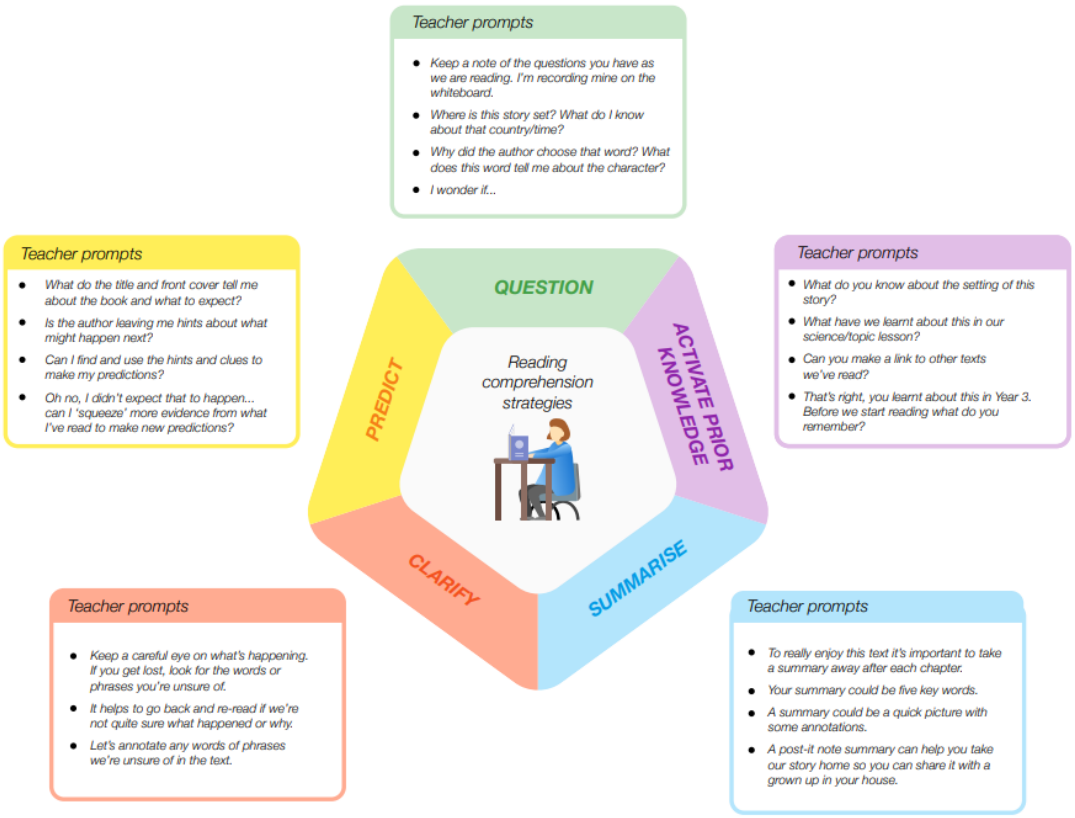
Self-regulation strategies build over time and it is important that teachers explicitly model how they are unlocking the meaning from a text and how they are monitoring their comprehension as they read. You might 'think aloud' your thought processes, demonstrate how you are re-reading sections, emphasise different words or use expression and verbalise how this helps you to understand the text. You might also demonstrate stopping and summarising what you know at key points and perhaps model jotting down responses and thoughts as you read.

It might be useful to model how you are checking your own comprehension through verbalising questions:
Why did he/she do or say that?
How does this connect to X part of the text?
How does this fit with what I already know?

The EEF have some very useful resources to support pupils to draw upon their understanding of the skills that strategic readers use to unlock meaning from a text. These can be used by teachers to model thinking processes and can also be adapted as question prompts for pupils to use before they read, during reading and after reading.

This graphic is taken from the EEF Guidance Report for KS2 Literacy and outlines these prompts.

Figure 8: Reading comprehension strategies with prompts to support practice



The full report can be found via this link https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/literacy-ks2

The EEF has also produced a useful resource that can be used across all subjects and age ranges to support pupils to develop their own self-regulation strategies and independence. You might find that these question prompts useful to use in your setting. They can be found by following this link: **https://educationendowmentfoundation.org.uk/news/eef-blog-supporting-pupil-independence-through-questioning**

As you get closer to the test, then it might be worth sharing question prompt to support their self-regulation as they tackle the test:

- How might I manage my time for this?
- When should I be moving onto the next text?
- How might I keep track of my reading and the ideas that are presented?
- What are the key parts of this question? What does…. mean? Do I know other words that have a similar meaning?
- What might help me to find the part of the story that they are referring to?
- What things might show me rather than tell me how a character is feeling? How might a character behave if they are determined/ anxious….?
- How might I work out the meaning of that word?

Focus on Reading Fluency

The EEF defines reading fluency as reading with accuracy (reading words correctly), automaticity (reading words at an appropriate speed without great effort) and prosody (appropriate stress and intonation). It is increased by background/domain knowledge which enables the reader to make connections between new and learned content which helps to deepen understanding. If a child does not have one of these building blocks in place, then their reading fluency and their reading stamina is affected.

Strategies that might support your pupils to develop their reading fluency and support building stamina

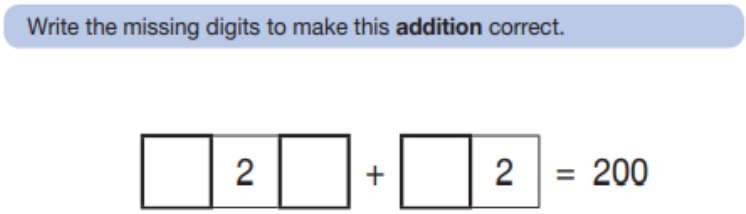
- Develop your children's 'ears' for reading: Model fluent reading whenever you can – class reader, reading back work for meaning and encourage children to practise this at every opportunity.
- Think out loud both before and after modelling how to read with expression, intonation and rhythm.
- Provide feedback on their expression and how you can see that they have understood their reading.
- Echo reading; This is best carried out in small groups or 1:1. You read a short section modelling fluent reading and then your pupils echo this back. You could translate with to a whole class session where the children practise in pairs and then feedback to each other. This works especially well if you pair a more fluent reader with a less fluent one.
- Repeated Reading: The readers' theatre approach works really well for this where pupils read, unlock the meaning of a text and then decide how to best perform it to bring it to life. This enables the children to practise and apply the 3 building blocks of fluency.

If you are interested to find out more about the Readers' Theatre approach, then you might want to take a look at this blog from the EEF:
https://researchschool.org.uk/shottonhall/news/how-i-teach-reading-fluency

Mathematics

Focus on developing Mental strategies

Over half the marks on paper 1 are more easily answered using a mental strategy rather than a written method, this is particularly important when timing is of the essence. This is a typical example of a question which should be answered using mental strategies:



Mental skills cannot be learned in a short space of time, they need to be regularly revisited in every year group and linked to the teaching of new topics and in particular throughout all of year 6. They are a fundamental part of pupils having a deeper sense of number and therefore being fluent in mathematics.

As with problem solving, there are many different strategies that we teach pupils, which develop over the years. However, if year 6 pupils do not have a broad understanding of these, then a clear approach would be to support your pupils on acquiring these fundamental nine strategies:

- Subitising
- Counting forwards and backwards
- Composition of numbers up to 20
- Partitioning
- Doubles/Near Doubles
- Compensation
- Bridging through 10, 100, 1000
- Reordering.

These are also fundamental as often the teaching and therefore understanding for the four operations, decimals and fractions builds on these mental skills

Remind Pupils

- Calculations can often be solved quicker using mental strategies, rather than using detailed written methods.
- Sometimes a mental strategy is not specific it's just another way of saying “use what you know about the numbers to get the answer”

Focus on Language development

> “The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof.”
>
> ***National Curriculum in England, Department for Education, 2013***

Always keep language clear and unambiguous in the classroom and encourage all adults and parents/carers to do so too. Glossaries and Dictionaries can help to support both adults and pupils with using correct mathematical terms. Again, pupils need repeated exposure to new mathematical words and language throughout every year group but in particular in year 6.

Over the coming months, create a range of opportunities for your year 6 pupils to use mathematical language frequently. This will help pupils to learn new vocabulary, to use words they already know more accurately, and to express their reasoning and understanding.

Activities may include:

- Provide access to mathematical dictionaries in the classroom and encourage pupils to make use of them.
- Play Pictionary with words from the mathematical dictionary
- Suggest sentence starters for questions which require an explanation
- Ensure pupils provide reasoning for their answers, rather than accepting just their answer to the question, start with verbal then move to written.
- Have a bank of mathematical wordsearches and crosswords to occupy spare time.
- Create visual word mats or displays of key vocabulary for every topic
- Set homework tasks of matching lists of words and definitions for every topic
- Use picture-word flash cards for key vocabulary

Spaced repetition and interleaving will help to deepen your pupils understanding of vocabulary and the use of mathematical language.

Focus on Problem solving and Reasoning skills

There are many different problem-solving skills that we teach pupils, which develop over the years from reception through to year 6 and these are what are required to solve the questions which make up Paper 2 and Paper 3. It is worth pointing out that RUCSAC is a superficial way of analysing a problem and when questions become trickier is not a helpful approach and not what is generally classed as a problem solving strategy.

If, for whatever reason, your year 6 pupils lack these skills, then a condensed approach would be to focus your teaching on your pupils acquiring the five problem solving skills below, over this next term. This will mean that they are equipped to try and attempt as many questions as possible in the two papers.

- Draw a picture/visual representation
- Try Guess and Check (Trial and Error)
- Make a systematic list
- Apply Logical Reasoning
- Work backwards

Remember these strategies, only help to make sense of the questions; pupils will still have to complete any calculations using the right numbers and operations to obtain the correct answer.

It is important to remember that Paper 2 and Paper 3 contain questions which require pupils to use their reasoning skills. Nrich describe the development of reasoning skills as starting as a novice and then becoming an expert; through the development of these five skills:

1. Describe
2. Explain
3. Convince
4. Justify
5. Prove

Over this next term provide your pupils with multiple opportunities to develop and apply these skills. Start with opportunities for them to use description, then explanation and so on. Reasoning skills take a much longer period to embed, so aim for all pupils to get to at least the ability to use their convincing skills over the coming months.

Remind Pupils:

- Questions that look alike or are similar sounding, cannot always be solved by the same strategy.
- A strategy that seems the most useful may not always be, so you need to know more than one.
- Sometimes in a question, two or three of the strategies are needed to solve it.

Access KS2 past and practice tests and papers

As Easter approaches you might want to get pupils to complete a full reading and maths KS2 assessment which will help you to consider any access arrangements that might support individual children. You may also find it useful to complete QLA to help you to target any additional curriculum coverage, revision and support. It may be that this additional support will be given during whole-class teaching sessions or you might consider whether small group or 1:1 support might be more appropriate. For those pupils who already have access arrangements in place, don't forget to apply these during any mock tests.

It is also extremely useful at this point for pupils to be using past KS2 papers or other similar practice papers, to help familiarise them with the format of the tests and test technique; as well as boosting their confidence by highlighting all the skills they've learned.

Here are a range of links to past papers and practice materials, which can be used in the classroom:

STA - National curriculum assessments: practice materials
Key stage 2 Past papers

Reading

TES - KS2 Reading SATs style Question Stems Question Types
Test questions grouped by the particular type, so can be used for focussed practice.
TES - KS2 SATs Reading Question Template
Test questions grouped by the content domains, so can be used for focussed practice.

Maths

Emaths - KS2 SAT (New Style) Practice Papers
16 practice papers for both the Arithmetic and Reasoning papers
Diagnostic Questions - Primary Maths SATs
Online quizzes on a range of topics with answers based on common misconceptions
TES - Blank Arithmetic Test Grids for KS2 SATs
A downloadable template in the style and format of the KS2 Maths SATs arithmetic paper which, once downloaded, can be edited with different arithmetic questions for focused practice on a particular topic or type of question.

Providing Effective Intervention

Whether your intervention sessions are 1:1 or small groups, in-school or out of school time, it is vital these additional sessions are targeted and correctly sequenced on the areas that individual pupils need. It is also important that as the class teacher you ensure that staff who are leading the sessions have the right knowledge and are using good quality resources. This will ensure that the sessions are successful and that the pupils make progress.

Once you have created a targeted list of areas for improvement for each pupil, share these with the person leading the intervention sessions. To ensure these are as successful as possible, you should also provide them with comprehensive teaching materials to address these identified areas.

Reading

The EEF have some useful guidance on how to run effective interventions to support developing reading comprehension strategies. Evidence shows that a wide range of strategies can be successful in reading comprehension interventions, but they need to be taught explicitly and consistently, and, crucially, pupils need to be given opportunities to use and apply these strategies more independently.

The EEF outlines some common elements involved in improving pupils' understanding of the meaning of a text:

- Explicit teaching of a strategies:
- Teachers questioning pupils to apply key steps
- Summarising or identifying key points
- Metacognitive talk to model strategies
- Using graphic or semantic organisers
- Using peer and self-questioning strategies to practice the strategies (such as reciprocal questioning); and
- Pupils monitor their own comprehension and identify difficulties themselves.

Access to further information can be found via this link:
https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit/reading-comprehension-strategies

There are a few commercial providers that offer practice comprehension tests which may be useful to use as part of your intervention sessions for reading, but make sure that those leading these sessions continue to have rich conversations and take the time to share thoughts, interpretations, and predictions about what has been read. We've already referred to how important the understanding of a range of vocabulary and understanding this vocabulary at relatively deep levels is, to pick up on the nuances of texts is, so taking the time to talk about effective language choices and how this enables pupils to make inferences about characters and events is an essential part of any reading support.

Mathematics

For mathematics some of the conclusions drawn from the Nuffield Foundation's research into Interventions to Improve Mathematical Achievement, can help schools to use approaches that have the potential to promote learning and progress in intervention sessions.

- Focus on key topic areas in mathematics such as conceptual understanding, magnitudes, and basic number skills.
- Ensure that children have a fluent grasp of mathematical facts.
- Ensure that children have a wide bank of strategies to complete mathematical problems and that they know when to best apply them.
- The appropriate use of objects as learning aids.
- Providing effective and timely feedback.

This is a useful list to use to check your current intervention provision and then use as a guide of how it may need to adapt.

Access to further information can be found via this link:
https://www.nuffieldfoundation.org/project/a-review-of-interventions-to-improve-primary-school-maths-achievement

The NCETM have produced some useful guidance materials giving explanations of how to use manipulatives and representations, step by step teaching guidance to develop fluency, modeled example questions, which can be used to support the teaching of small groups or 1-1 intervention sessions

- Primary Mastery Professional Development | NCETM
- Teaching mathematics in primary schools - GOV.UK (www.gov.uk)
- Exemplification of ready-to-progress criteria | NCETM

Tips for the final weeks

As it gets closer to the tests, here are some top tips and guidance for those final weeks in supporting your pupils in the classroom, in school and at home.

Wellbeing

The KS2 Tests can cause a mixture of feelings for pupils of hope, excitement, pressure; but the feelings they may tend to associate with the most are worry or stress. Having some level of anxiety is normal. When something feels important to a pupil, or to their parents/carers, especially when it is new and unfamiliar, this worry is a natural response that is designed to help deal with the situation. Small and manageable amounts of nervousness can be helpful and can provide some pupils with the focus they need to prepare and do their best. If pupils are feeling very worried, there are strategies you can try to help reduce their anxiety and help them to believe that the KS2 Tests are a challenge they can cope with.

It is important to look after pupils' physical, mental, and social well-being during the preparation weeks before and the week of the tests. It is also important to share these messages with their parents/carers, so they can also help in managing the wellbeing of the children during this time.

There are five fundamentals which you can support with, in the period preceding and during Test week:

1) Socialising – Actively encourage parents/carers to ensure their children spend time with friends and family on the weekend before test week.
2) Relaxing – This can be active or passive. During the week of the tests, allow more time during the school day for pupils to read a book or play a game.
3) Exercising – In test week during school time, take pupils outdoors and try some fun activities to encourage exercising as this will help to reduce anxiety levels. Encourage parents in the period preceding test week to ensure pupils are outdoors and active where possible.
4) Eating – Remind parents to ensure pupils have a good breakfast each morning during test week, you may want or need to provide breakfast for your pupils, to ensure they have a good start to each day.
5) Sleeping – Remind parents of allowing for 'wind down' time, quality sleep and early bedtimes in the run up and during the week of the tests. This includes the use blue screen devices e.g., tablets, games consoles, TVs, which can interfere with natural sleep cycles if used in the hour before bedtime.

Reading

Tip 1: Encourage pupils to be active readers

The reading test requires readers to read 3 passages which together can amount to up to 2300 words. As you know when we read, sometimes our mind can wander off and we can lose the gist of what is going on in a text. Encouraging pupils to continue to use all the comprehension monitoring strategies that you have taught them in class will help to keep them on track.

Encourage pupils to ask themselves questions as they read, such as:

- Does this make sense?
- Why did he/she do or say that?
- How does this connect to X part of the text?
- How does this fit with what I already know? If it doesn't, look back

Attend to the key facts

Sometimes it can help pupils to circle/ underline parts of the text to keep track of who, what, where, when, why, how. Highlighting and annotating can help also to make connections between events and to summarise paragraphs. The STA Access Arrangements document for the test papers, clarifies that pupils can highlight and annotate their reading paper during the test, if this is part of their standard classroom practice to help monitor their own comprehension.

Tip 2: Think vocabulary!

Vocabulary in the 3 texts

As you know, understanding the words in the text and having strategies to work out the meaning of words in the text is essential to making meaning. Before the test, and in any lessons that you have in the run up to the test to support them to tackle them with confidence, remind pupils to think about the strategies that you already use in class:

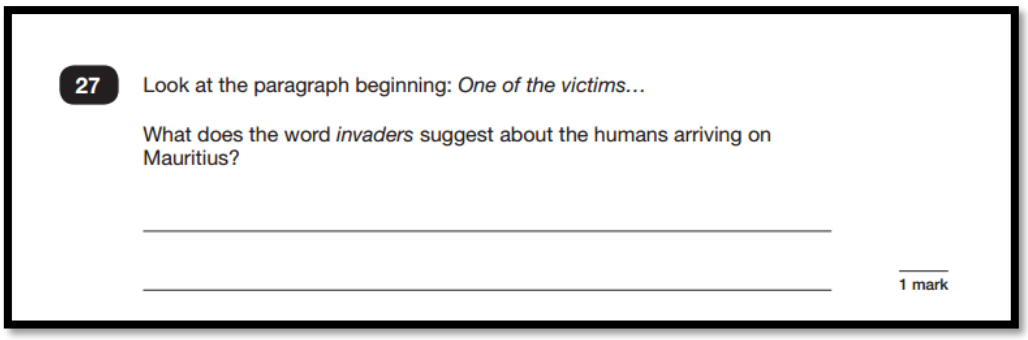
- Which words don't I understand? Are they essential to make meaning or can I just skip over them and still understand what is going on?
- Can I use the context to help me make meaning? What events have already happened that might give me a clue to what the word means?
- What word class is this word? Does that help me to work out what it might mean?
- Could I replace this word with another similar word, and it will still make sense? Does that give me a sense of what the word might mean?

Answering questions about vocabulary: **Impression** and **Suggest**

Impression and suggest are two words that frequently appear in questions in the reading test. For these types of questions, you need pupils to consider what the words and phrases, and detail in the text make them think of, or remind them of.

If pupils are being asked to comment on the meaning of words and what they might suggest, it is important that they don't just repeat the word or phrase used.

For example, to answer this question:


27 Look at the paragraph beginning: *One of the victims…*

What does the word *invaders* suggest about the humans arriving on Mauritius?

_____

_____ 1 mark

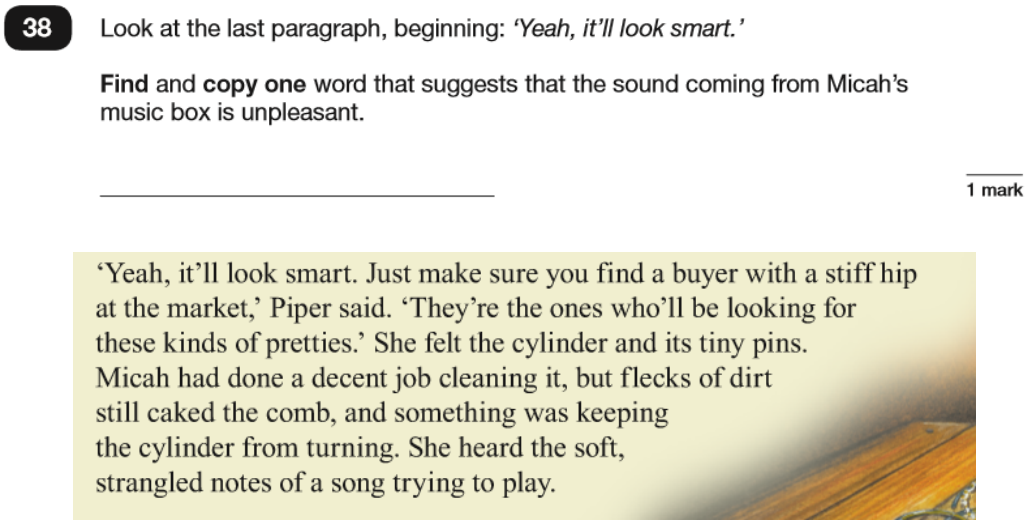
Don't allow pupils to just say: 'because the humans invaded/because it was like an invasion.' Instead, they should imagine that they are a living thesaurus and **think of other words linked to the word's meaning and the various associations and connotations to the word:** Invader=violent, attack, destroy, take over, uninvited.
Then **chose 2 *quite different*** words from this mental list – e.g., violent & unwelcome.
Then **make the sentence for the answer: "***the word invaders suggest they weren't invited and went about destroying."*

Tip 3: Understand the question

Make sure that pupils understand and are familiar with the question stems in the tests; providing some support on the things that are expected of them in different questions can be very helpful. These prompts may help in the run up to the tests.

What is the question asking me to do?

Find and copy - make sure that you copy the words and phrases correctly. Sometimes you might need to think of the vocabulary associations and connotations to locate the correct answer, as in the example.

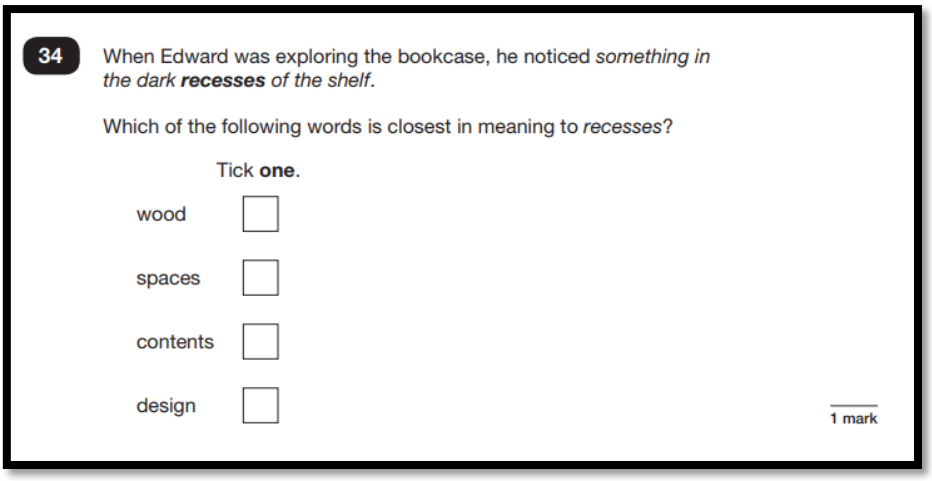

38 Look at the last paragraph, beginning: *'Yeah, it'll look smart.'*

Find and **copy one** word that suggests that the sound coming from Micah's music box is unpleasant.

_____ 1 mark

'Yeah, it'll look smart. Just make sure you find a buyer with a stiff hip at the market,' Piper said. 'They're the ones who'll be looking for these kinds of pretties.' She felt the cylinder and its tiny pins. Micah had done a decent job cleaning it, but flecks of dirt still caked the comb, and something was keeping the cylinder from turning. She heard the soft, strangled notes of a song trying to play.

Tick one – Make sure that you only tick one! These are not always as easy as they first appear….



34 When Edward was exploring the bookcase, he noticed *something in the dark* ***recesses*** *of the shelf*.

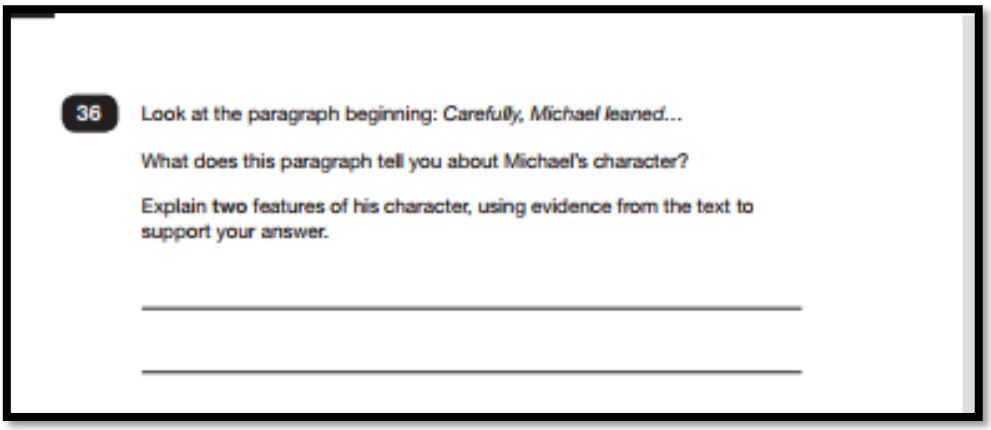
Which of the following words is closest in meaning to *recesses*?

Tick **one**.

- wood ☐
- spaces ☐
- contents ☐
- design ☐

1 mark

Explain – usually means that you will have to interpret some of the content of the texts and use that evidence from the text in your answer.



36 Look at the paragraph beginning: *Carefully, Michael leaned...*

What does this paragraph tell you about Michael's character?

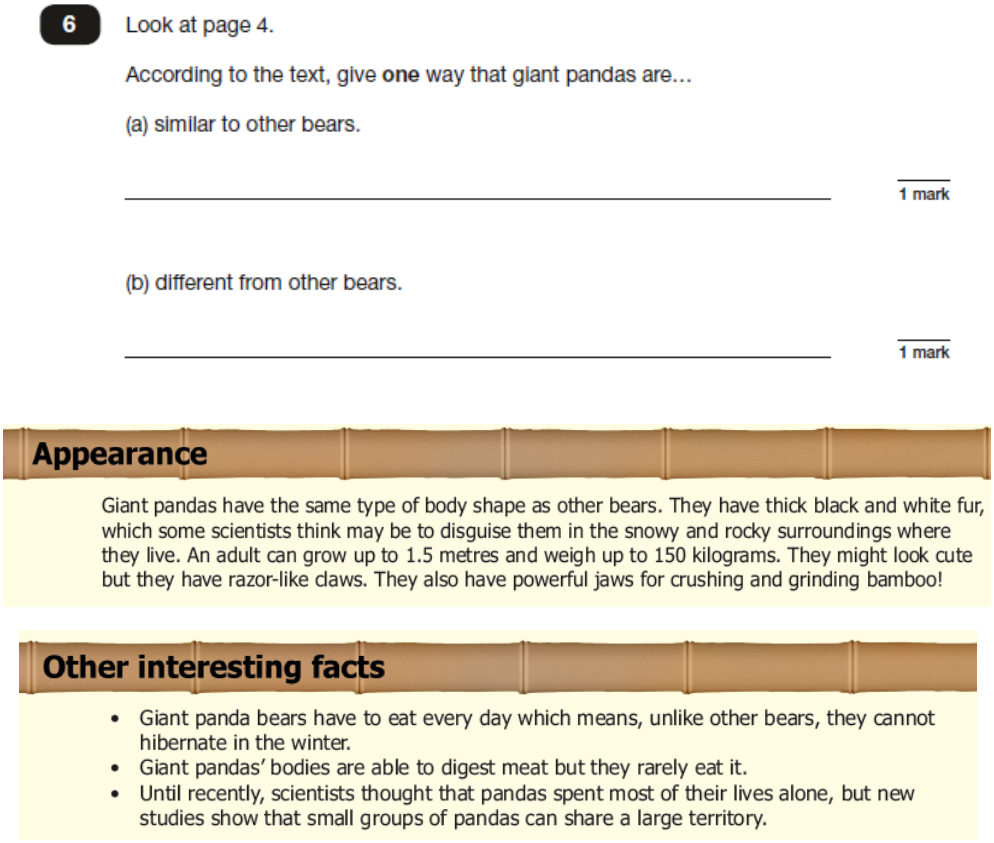
Explain **two** features of his character, using evidence from the text to support your answer.

_____

_____

What are the key words in the question? Sometimes it might be helpful to underline or circle them.

Synonyms? Remember also to think about synonyms for those key words. In the example, in part a) similar is a key word and in part b) different is a key word. So, the synonyms for similar might be the same as, like and the synonyms for words that might signal a difference might be: however, unlike, in contrast to. Often readers need to use synonyms and synonymous references to help locate the answer in the text, such as this example.



6 Look at page 4.

According to the text, give **one** way that giant pandas are...

(a) similar to other bears.

_____ 1 mark

(b) different from other bears.

_____ 1 mark

Appearance

Giant pandas have the same type of body shape as other bears. They have thick black and white fur, which some scientists think may be to disguise them in the snowy and rocky surroundings where they live. An adult can grow up to 1.5 metres and weigh up to 150 kilograms. They might look cute but they have razor-like claws. They also have powerful jaws for crushing and grinding bamboo!

Other interesting facts

- Giant panda bears have to eat every day which means, unlike other bears, they cannot hibernate in the winter.
- Giant pandas' bodies are able to digest meat but they rarely eat it.
- Until recently, scientists thought that pandas spent most of their lives alone, but new studies show that small groups of pandas can share a large territory.

Tip 4: Read and re-read the instructions carefully… and then follow them!

Some questions might refer the pupil to a part of the text to find an answer, so make sure they remember they need to go to that page and section that is referred to, to help them answer the question.

Remind pupils that when the question says, 'find and copy a phrase', that the whole sentence is not copied. Also, when it says, 'find and copy one word', that only one word is copied and not two or three!

Tip 5: Be Systematic

As you know, the texts in the reading test are organised in ascending order of complexity, and the questions within each section are too; so, it is sensible to approach the texts and questions in the order that they are set out. In the run up to the tests, help your pupils to consider how they are going to manage their time in the test, and to think about how much time they might spend on each section.

It can be useful to **consider the number of marks** for each question and use this to guide the number of distinct and different points that need to be made.

If it helps, **underline/ circle** key words in questions and key instructions and check.

Skip and return - Is a sensible technique to use in the tests. Sometimes we might struggle on a particular question, but if we skip it and move onto other questions it might give us the thinking time, we need to find the solution. This is particularly useful strategy in the grammar paper where pupils might come across a grammatical term that they have a temporary brain freeze about. A subsequent question might just give them that hint to remind them what is being referred to.

Go back and check for silly mistakes - Encourage pupils to ask themselves these questions:

- Have I followed the instructions?
- Have I included enough evidence to match the marks allocated to this question?
- Are my points distinct and different from each other to get the 2 marks?
- Have I included evidence from the text to back up my answers?
- Have I thought about the associations and connotations linked to this word?

Mathematics

Tip 1: Use your remaining time wisely

Historically to achieve the expected standard in the mathematics test, pupils needed to have achieved 53-55% of marks across all 3 papers.

From analysis we know a pupil could achieve this by simply completing questions based on the number topic, questions covering addition, subtraction, multiplication, division, place value, decimals and fractions.

As the test approaches, you need to be shrewd with the time you have available and rather than try to cover everything the pupils need, focus on these specific topics where required by different pupils, to make the difference.

These links will take you to resources split into mathematical topics, which you can use as part of your final revision and practice.

- David Morse - Topic focussed KS2 SATs questions
- Dropbox - Year 6 SATs question by Content Domains
- mathsforeveryone - KS2 SATs Practice

Tip 2: Deepen understanding of routine questions

The focus of the Arithmetic paper is fluency and less on the reasoning and problem-solving skills required of Paper 2 and 3. As many of you will tend of have a greater awareness of fluency teaching pedagogy and often your pupils have experienced this style of teaching the most, it can be easier to maximise the marks achievable in this paper, by developing the fluency skills of your pupils.

Regular practice can be useful, so pupils become familiar with the style of questions but do not use a whole test, instead concentrate on 5 questions per day. It's important this practice is not constant testing, but instead where you are using the questions to apply different teaching approaches which deepen understanding. Such as comparing different methods to answer the question, using incorrect answers, doing partner explanations without actually answering the question, as well as the traditional modelling of how the question could be answered.

These links will take you to resources with paper 1 arithmetic style questions, which you can use as part of your fluency practice.

- myminimaths - KS2 SATs Practice Arithmetic Papers
- Gary Smallman - Year 6 Arithmetic Tests
- Candomaths - ArithmeQuiz
- Sarah Farrell - Arithmetic Tests

This resource could be used over the Easter holidays, as it features 5 arithmetic questions every day Steven Wragg - Ten for Ten KS2 Mathematics Easter Practice Booklet

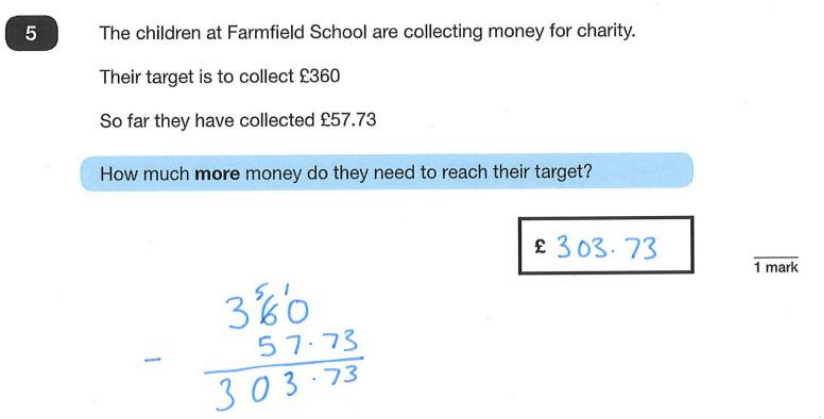
Tip 3: Pupils RAG rate questions

To make questions in lessons more purposeful and effective to you, have your pupils RAG rate the questions which they have completed. RAG ratings will allow you as a teacher to really prioritise class teaching and intervention sessions, in the final few weeks until the test.

For example, if in a set of question, most pupils in your class either partially complete or do not attempt to answer them and they also RAG rate the questions as Red or Amber, then it is likely a large amount of teaching time, will be required for all pupils to fully understand this objective/topic. Therefore, based on the remaining time you have available before the test, you can then decide to, either teach this before the test or choose to work on this topic after the test in the summer term, to support your pupil's move to secondary school.

Tip 4: Use incorrect answers

Provide opportunities to pupils to explore a range of mathematical mistakes and incorrect answers to test questions. This gives them to the chance to unpick where the calculation may have gone wrong and supports systematic thinking and checking to obtain the correct answer.



Sarah Farrell - Badly completed Test Papers

Often the process of thinking why the given answer is wrong, helps to deepen the understanding of the question and the procedure and allows many pupils to then go on and be able to complete this type of question independently.

This teaching approach helps to address misconceptions which may exist and crucially engages pupils with test questions, rather than refuse when they are unsure of how to start the question or answer it correctly. This is a great approach for pupils to do in pairs as it can promote mathematical discussion but can also be completed individually.

You may already have lots of examples from previous year group practice tests, which you can anonymise to use. I would however not recommend using incorrect answers, from your current year 6 group, even if they are anonymised, pupils are likely to recognise their own work.

These links will take you to resources with examples of incorrect answers, which you can use is lessons and intervention sessions:

- Ryan Holmes - Misconception SATs papers (2017) with intentional errors to correct
- Sarah Farrell - Badly completed Test Papers
- Elliot Morgan - Year 6 Arithmetic Test with mistakes

Tip 5: Test procedures and language

In a multiple choice question, often the correct answer should be circled. Encourage pupils to cross out any wrong answers, this removes any doubt over which answer they have given and is also a good technique to help them focus their thinking when answering the question.

In test questions there are often words which help to indicate the mathematical operation or method required to solve it. Pupils should be supported to recognise and comprehend these words through repetitive exposure in a range of contexts.

Common words and phrases:

- "How many do they have **altogether**", these questions are likely to be about addition
- "How many…… **in a minute/per week/over 15 days**" these questions are likely to be about multiplication
- "Dan **gave** Jane £432" these questions are likely to be about subtraction
- "……**share** between the 3 sisters" these questions are likely to about division

Spend time looking at questions and not completing them but instead encouraging pupils to identify these words, that may help them to answer the question and also to explain what the question is likely to be asking them to do.

These links will take you to resources with worded questions, which you can use as part of your teaching:

- Greg Tang Math - Word Problem Generator
- Sarah Farrell - Vocabulary
- Elliot Morgan - Maths SATs Language

I've got some questions..... No problem, we're here to help.

We hope that you have found some of the ideas and approaches in this guide helpful and if you do have any questions or queries, about the KS2 tests, please do get in touch. We have an experienced team of English, mathematics, and assessment advisers here to help you and discuss your bespoke needs.

Please contact us:

Email: **assessment@norfolk.gov.uk**

Call: **01603 303304**

Remember that whilst revision resources, activities and practice papers can be useful, focused, purposeful, effective teaching will have the most significant effect on learning and progress.