THE PRINCIPLES OF INSTRUCTION

TAKEN FROM THE INTERNATIONAL ACADEMY OF EDUCATION

This poster is from the work of Barak Rosenshine who based these ten principles of instruction and suggested classroom practices on:

- research on how the brain acquires and uses new information
- research on the classroom practices of those teachers whose students show the highest gains
- findings from studies that taught learning strategies to students.

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01 DAILY REVIEW



Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Automatic recall frees working memory for problem solving and creativity.

02 NEW MATERIAL IN SMALL STEPS



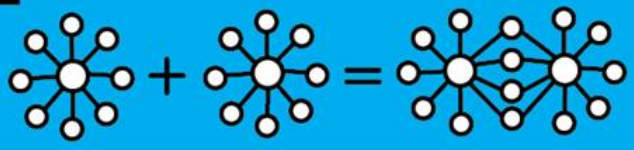
Our working memory is small, only handling a few bits of information at once. Avoid its overload — present new material in small steps and proceed only when first steps are mastered.

03 ASK QUESTIONS



The most successul teachers spend more than half the class time lecturing, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

04 PROVIDE MODELS



Students need cognitive support to help them learn how to solve problems. Modelling, worked examples and teacher thinking out loud help clarify the specific steps involved.

05 GUIDE STUDENT PRACTICE



Students need additional time to rephrase, elaborate and summarise new material in order to store it in their long-term memory. More successful teachers built in more time for this.

06 CHECK STUDENT UNDERSTANDING



Less successful teachers merely ask "Are there any questions?" No questions are are taken to mean no problems. False. By contrast, more successful teachers check on all students.

07 OBTAIN HIGH SUCCESS RATE



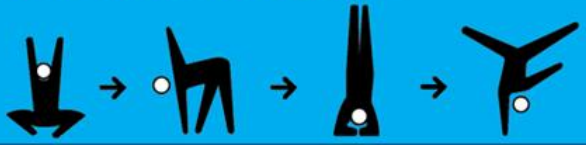
A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

08 SCAFFOLDS FOR DIFFICULT TASKS



Scaffolds are temporary supports to assist learning. They can include modelling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of cognitive apprenticeship.

09 INDEPENDENT PRACTICE



Independent practice produces 'overlearning' — a necessary process for new material to be recalled automatically. This ensures no overloading of students' working memory.

10 WEEKLY & MONTHLY REVIEW



The effort involved in recalling recently-learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to such prior knowledge.

Ashbrook Junior School Teaching and Learning Framework

Teaching and learning at Ashbrook Junior School is strongly influenced by the Principles of Instruction from the research conducted by Barak Rosenshine. These are not a checklist for lessons but rather a general approach to teaching and learning, with some aspects being more appropriate on a daily basis than others. Rather than having a fixed approach with Rosenshine's work, we also develop teaching and learning further with links to other educational research (including cognitive science) and the mastery approach. Our curriculum is designed for children to know more and remember more.

Questioning



Questions allow a teacher to determine how well the material has been learned and whether there is a need for additional instruction. Students need to practice new material. The teacher's questions and student discussion are a major way of providing this necessary practice. Checking understanding should underpin each aspect of the lesson to ensure that children understand what is being taught.

Reviewing material



When we cover something for the first time, it does not mean that we have learned it. This needs to be done over time to support retention of information in our long-term memory and to support students ability to make links. We naturally forget things that we cover and forgetting is useful in the learning process as the retrieval of information is the most difficult part. Reviews help support the retention of information by supporting recall of prior learning. The development of expertise requires thousands of hours of practice, with reviews being an essential part of this. By continually revisiting prior learning, methods and knowledge can become more automatic, freeing up thinking for other things.

Stages of Practice



Guide student ➞ Practice Independent ➞ Obtain Success Rates

Guiding student practice is essentially like a bridge between initial modelling and giving students time to practice independently. The time can be used to provide additional explanations, remodel where necessary, work through examples and check student understanding so you know students are ready to move on to independent practice.

Sequencing, Concepts and Modelling



Small Steps ➞ Scaffolds ➞ Provide Models

Learning new material in small steps encourages us to be deliberate in presenting small amounts of new material at any time.

Providing models for children to use can be implemented in different ways including: using diagrams, illustrations or pictorial representations to model something; using dual-coding with images and words combining together to improve understanding. We recognise that it's great practice to provide children with scaffolds, or instructional supports, to help them learn difficult tasks.

Contents

1. Questioning
2. Reviewing Material
3. Stages of Practice
4. Sequences, Concepts and Model

Questioning

Ask questions



Students need to practice new material. The teacher's questions and student discussion are a major way of providing this necessary practice.
Questions allow a teacher to determine how well the material has been learned and whether there is a need for additional instruction *(Appendix 1.2).*

Checking understanding



Checking understanding should underpin each aspect of the lesson to ensure that children understand what is being taught.

This includes asking questions to all students, asking questions regularly whether it be during modelling, guided practice or independent practice to ensure you know what they know.

Additionally, through questioning you can delve deeper, checking and deepening understanding which means not always accepting the first answer and moving on but asking further questions. *(Appendix 1.1).*

This means teachers need to have excellent subject knowledge of the lesson as well as the general unit they are teaching. If you know where the unit is going and have a good understanding of that subject matter, you can guide questions carefully and select specific questions that build over a series of lessons. *(Appendix 1.2).*

By having excellent subject knowledge, you can also answer questions the children have and make sure that green bubble questions provide the depth, challenge and discussion required to extend that lesson. *(Appendix 1.2).*

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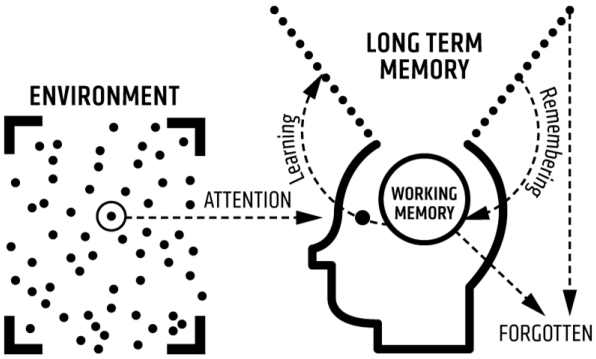
In our classrooms this can be achieved through but not limited to :
Cold Calling - Teachers select children to answer involving all children
Show Me boards- all students answer on iPads teaching platform or whiteboards (appendix 2.3)
Say it Again Better- Improve verbal responses of pupils
Process Questions- Asking pupils to explain their thinking beyond just the answer
Whole Class feedback - engaging all children to respond to questions to establish AFL to gauge next steps
Scoffolded Questioning- Progressively getting harder; engaging children and challenging individuals at an appropriate cognitive level,
Probing Questions- Asking further questions to deepen children's understanding or address misconceptions following a pupil's answer
Think Pair Share- a routine for structured discussion between talk/learning partners *(Appendix 1.1)*

Reviewing Material

Why review prior learning?

When we cover something for the first time, it does not mean that we have learned it. This needs to be done over time to support retention of information in our long-term memory and to support students ability to make links. We naturally forget things that we cover and forgetting is useful in the learning process as the retrieval of information is the most difficult part. Reviews help support the retention of information by supporting recall of prior learning. The development of expertise requires repeated practice, with reviews being an essential part of this. By continually revisiting prior learning, methods and knowledge can become more automatic, freeing up thinking for other things e.g. someone who has driven for a few years can drive to work without even thinking about it.



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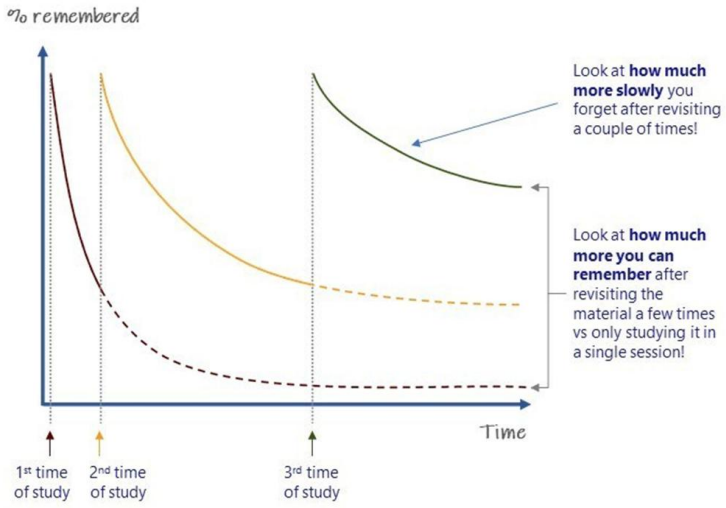
This can be achieved through recap *(appendix 2.1)*, quizzing *(appendix 2.3)*, graphic organisers *(appendix 4.1)* and close procedures. This should be well planned through sequences of lessons, within lesson design and opportunity for review throughout the day. This ensures fluency of recall with high expectations of answers being quick and accurate. This then informs future planning. Key knowledge from units of work should be revisited regularly to ensure children are retaining the desirable key knowledge. Key knowledge is given in progression maps and it is this content that should be revisited.

Ebbinghaus and the forgetting curve

The graph to the right shows research by Ebbinghaus about how we forget information, and how quickly, especially when it is newly learned. The curve also shows what happens by revisiting the same learning and how forgetting slows and reduces. Weekly and monthly reviews can act as this revisiting of learning and help us not forget information.



Working memory to Long Term memory

There are three key resources we all draw upon in order to think:

The environment: This is everything outside of our minds including the internet and knowledge readily shared by others. The environment is an unlimited external store of information.

Working memory: The part of memory where all thinking takes place. The capacity of our working memory is limited so there is a limit on how much information we can juggle in our mind at one time.

Long-term memory: Where all our memories are kept. This includes memories of life events (episodic knowledge), factual information (semantic knowledge) and memories of procedures (procedural knowledge). Long-term memory is an unlimited internal store of information.

New information takes up more working memory than familiar memory that is gathered from the long-term memory. Where children appear to forget to do 'simple' tasks such as adding a full-stop it is because there isn't enough room in their working memory for them to hold that final step 'in mind'.

Stages of Practice

Guided practice is the vital stage that connects teacher modelling with truly effective independent work. It gives pupils the time, structure and feedback they need to develop accuracy, confidence and fluency before attempting tasks on their own. High-quality guided practice ensures that pupils do not simply watch an expert—but actively *become* one through supported application.

The Purpose of Guided Practice 

After initial explanation and modelling, pupils often understand the concept in theory but are not yet secure enough to apply it independently. Guided practice bridges that gap by allowing the teacher to:

- Offer further explanation or re-explanation where needed.
- Remodel processes or strategies if pupils show misconceptions.
- Work through examples together, step by step.
- Check understanding continuously through questioning, discussion and short tasks.
- Ensure pupils achieve a high success rate before moving on.

This stage protects pupils from developing early errors, supports working memory, and gives the teacher real-time insight into whether the class is ready for the next step. A common pitfall is rushing from modelling straight to independent work. Effective teachers devote generous time to guided practice, especially when new material is complex or unfamiliar. During this phase:

- Teachers provide clear scaffolds so pupils can succeed with challenging tasks.
- Pupils rehearse the right strategies and procedures before attempting them alone.
- Misconceptions are corrected early, preventing them from becoming embedded.
- The class progresses together, rather than allowing gaps to widen.

Time spent here creates long-term gains in accuracy, confidence and retention.

High Success Rates 

Students taught by more effective teachers consistently demonstrated higher success rates during guided practice and in their individual work later on.
This means teacher vigilance during this stage is crucial. Teachers must:

- Monitor responses closely—both oral and written.
- Give immediate, specific feedback that pupils can act on straight away.
- Slow down or pause teaching if pupils are showing too much struggle.
- Reteach or adjust explanations when necessary.
- Move pupils towards independence only when they show real fluency.

Without this mastery, pupils risk falling behind as new content is introduced in later lessons.

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Effective guided practice often includes:

- **Teacher/pupil co-construction**: completing worked examples together reducing support.
- **Frequent questioning**: checking that pupils understand *why* each step is taken.
- **Mini whiteboards or short tasks**: allowing every pupil to respond and enabling instant feedback.
- **Shared problem-solving**: modelling correct processes while inviting pupils to contribute steps.
- **Immediate adjustment**: reteaching, slowing down or extending depending on pupil responses.
- **Clear transition markers**: only moving to independent practice when pupils show consistent success.

Sequencing, Concepts and Models

At Ashbrook we have an explicit teach phase of our lesson design. During this phase teachers model and explain concepts.

Small Steps

Learning new material in small steps encourages us to be deliberate in presenting small amounts of new material at any time. Children need supporting through both guided practice of the material and independent practice to master the new learning before moving on to the next step of learning (Appendix 3.1)*(Appendix 4.1)*.

Providing Models

Providing models for children to use can be implemented in different ways including: using diagrams, illustrations or pictorial representations to model something; using dual-coding with images and words combining together to improve understanding; worked examples of questions e.g. showing how to complete a written calculation or by discussing a piece and talking through your thinking as you do it (self talk) such as a piece of writing or tackling a comprehension question.
Learning happens over time. So modelling numerous times, followed by practice and then remodelling when sharing an answer and then practising the model again independently aids understanding and increases retention. As pupils become more confident, modelling can then be reduced and withdrawn *(Appendix 4.4)*.

Scaffolding

We recognise that it's great practice to provide children with scaffolds, or instructional supports, to help them learn difficult tasks. A scaffold is a temporary support that is used to assist a learner. These scaffolds are gradually withdrawn as learners become more competent, although students may continue to rely on scaffolds when they encounter particularly difficult problems.

In a learning sense, we are removing barriers from learning to ensure that working memory is not overloaded. If you are teaching a child how to use a written method for multiplication and they don't know their times table facts, too much of their cognitive load will go in to trying to solve a fact rather than in to learning the method. By providing a scaffold, you remove a cognitive load barrier and ensure working memory is focused on the learning you want it to be *(Appendix 4.1)*.

Think of scaffolding as the breaking down of tasks into the incremental steps needed to reach the end goal. Scaffolding is supplying some of those steps along the way rather than a differentiated task. Remember that scaffolds should only be temporary and should be designed to be incrementally removed.

Sequencing, Concepts and Models

High-quality instruction is built on the careful organisation of new material so that pupils can genuinely understand, remember and apply what they learn. Sequencing, teaching concepts effectively and using models or worked examples all play a central role in this. Together, they help teachers break complex ideas into manageable steps, reduce cognitive load and support pupils in building strong mental frameworks. *(Appendix 4.4)*

Sequencing New Learning

Effective sequencing means introducing new content in a logical order that builds on what pupils already know. Key approaches:

- **Start with prior knowledge:** Connect new learning to something familiar. This strengthens memory and reduces confusion. *E.g. before teaching 2 digit division, revisit place value and short division.* *(Appendix 4.5)*
- **Break learning into small, well-planned steps:** Present one idea at a time and check understanding before moving on. This prevents pupils from being overwhelmed and allows misconceptions to be caught early.
- **Move from simple to complex:** Ensure pupils master foundational skills before introducing more challenging applications. *E.g. practise identifying features of persuasive writing before expecting pupils to write a full piece.*
- **Give clear, explicit explanations:** Each step in the sequence should be accompanied by clear teacher modelling, examples, and chances to practise.

Teaching Concepts Clearly

Concepts are the "big ideas" pupils need to understand across subjects—fractions, character impressions evidence, forces, etc. High-quality concept teaching includes:

- **Precise definitions and accessible explanations:** Use simple, accurate language and avoid unnecessary detail at first. *(Appendix 4.5)*
- **Use multiple examples and non-examples:** A rich set of contrasting cases helps pupils recognise the boundaries of a concept. *E.g. showing both subordinate clauses and phrases.* *(Appendix 4.6)*
- **Link concepts together:** Build conceptual understanding by showing how ideas connect. *E.g. linking multiplication to area, or inference to evidence.* *(Appendix 4.7)*
- **Revisit concepts often:** Spaced review helps pupils retain and deepen their understanding over time.

Using Models and Worked Examples

Models are powerful because they let pupils *see* expert thinking. They reduce cognitive load by showing the steps clearly before pupils try independently. Strong modelling should include:

- **Thinking aloud:** Verbalise your internal reasoning—how you approach a problem, what you check, why you choose certain strategies.
  This helps pupils learn not just *what* to do, but *how* to think.
- **Clear, annotated worked examples:** Show high-quality examples that break tasks into stages.
  E.g., a boxed-up paragraph plan, a solved maths problem, a labelled science diagram.
- **Scaffolded practice:** Provide partially completed examples or guided questions so pupils can practise with support. Gradually remove scaffolds as confidence grows.
- **Common pitfalls:** Model mistakes, misconceptions, and how to correct them.

Appendix

The purpose of this appendix is to give high quality examples of the teaching and learning concepts previously given that are currently used across all subjects at Ashbrook. This will be updated yearly to show the the progression of high-quality planning at our school.

1. Questioning
2. Reviewing Material
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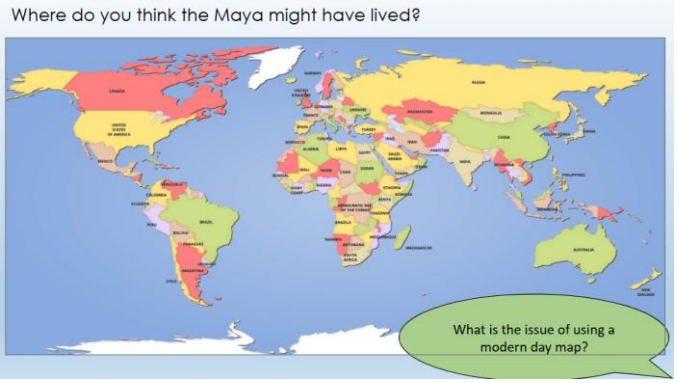
Appendix- Questioning

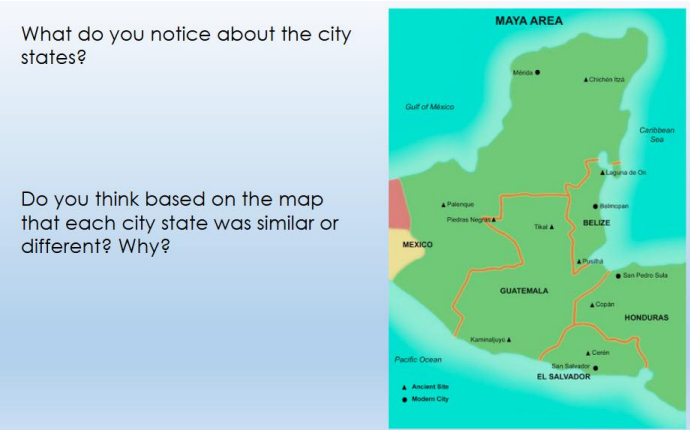
1.1 *Walkthru Book 1 (Tom Sherrington)) Scan in questioning page*

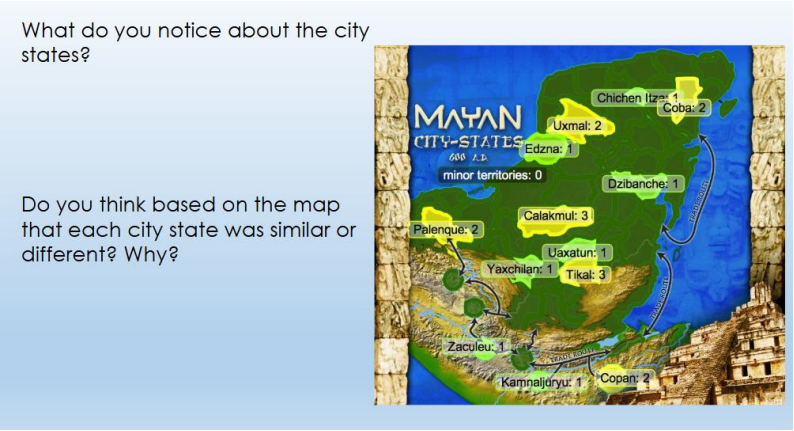


1.2 In this Geography lesson the objective is for children to understand where a civilization was located. Through planned questioning the children can begin to apply what they have previously learnt and are learning. How the teacher collects responses to these questions can be achieved in many of the ways demonstrated in appendix 1.1. The questioning is not limited to what it is on the slide and through assessment of the children responses the teacher can adapt the teaching and respond to the needs of the children. For example, if after the first question children can not recall the continents of the Earth the teacher may need to recap this before moving on. Therefore, plugging the gap in the children's knowledge rather than widening the gap. The questions are open-ended and allows the teacher to know whether they can move onto the next part of teaching. This process is replicable across the curriculum.



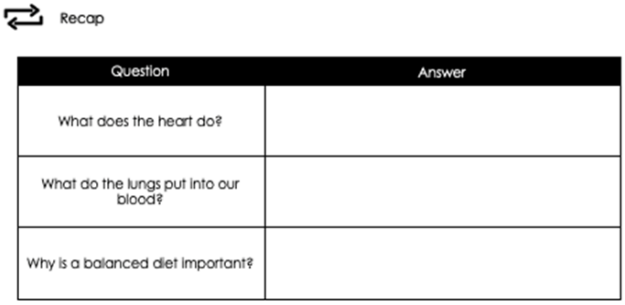


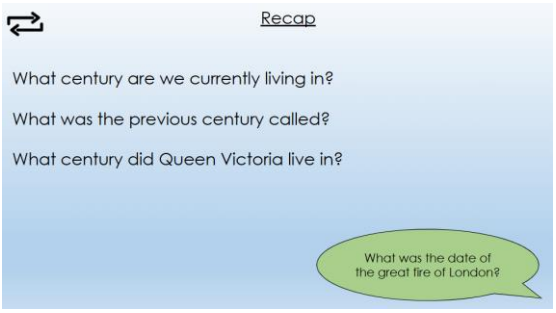




Appendix- Reviewing Material

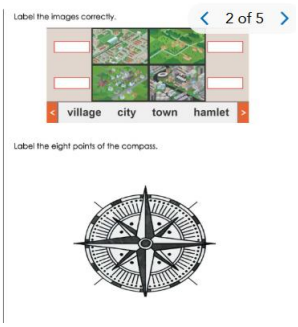
2.1 As part of the school lesson design the **Recap** stage of the lesson allows the teachers to offer an opportunity to bring previously learnt content back into the working memory addressing misconception and adapting learning for pupils before moving on. There should be a focus on accuracy and speed of recall as this content that *should* have been embedded.





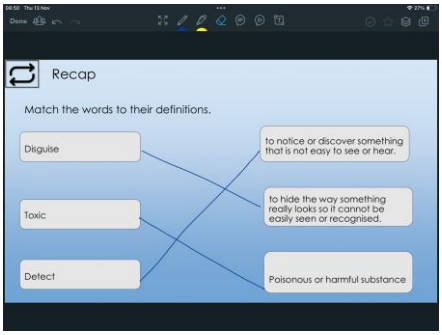
2.2 As part of the planned sequence of learning across all subject, low stakes retrieval opportunities such as when the children come in in the morning can be created to bring content from across the curriculum back into the working memory. This is an example of spaced learning.

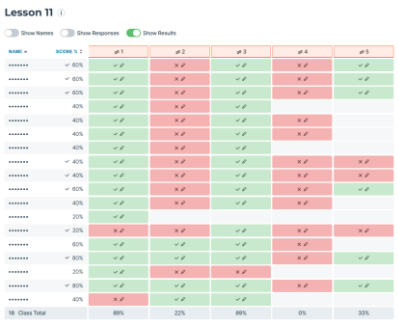


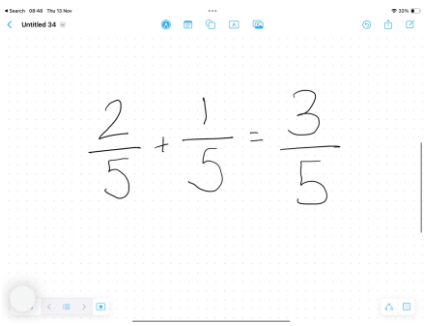


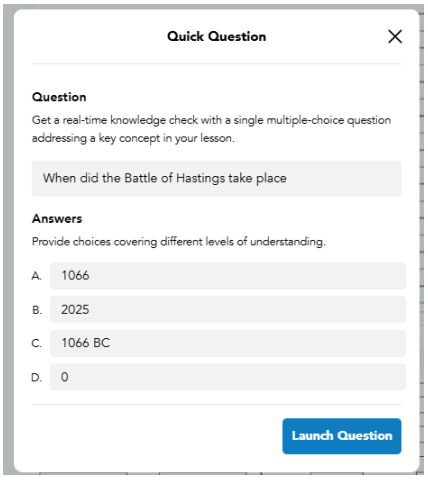


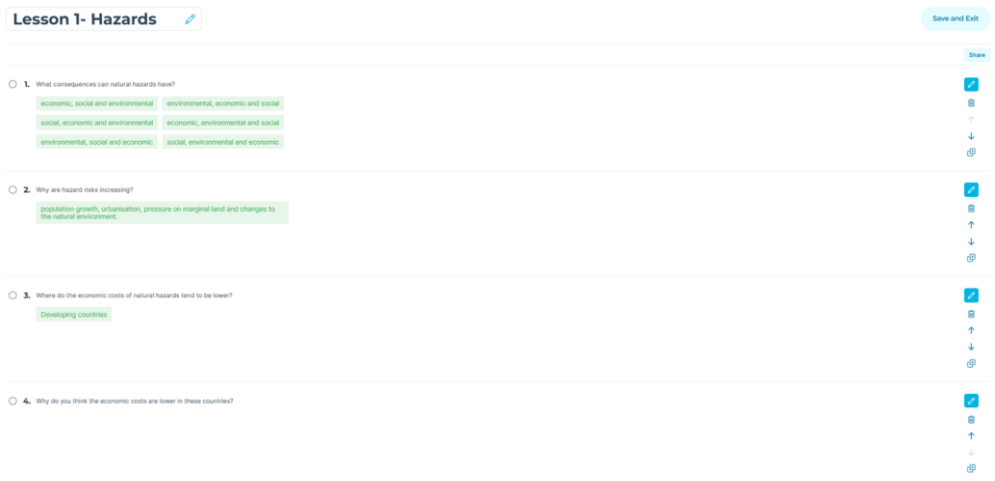
2.3 Digital tools such as assessment quizzes and quick responses on iPads allow for an immediate review tool to streamline these opportunities and give an opportunity for teachers to assess.





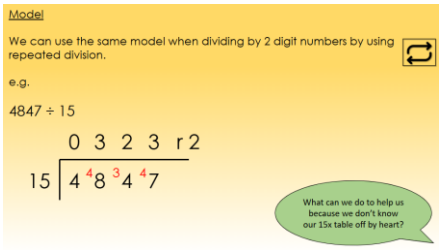


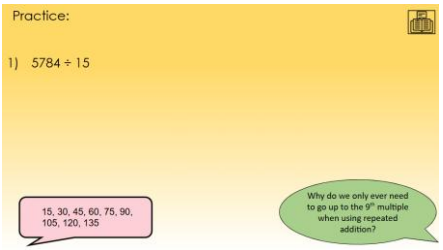


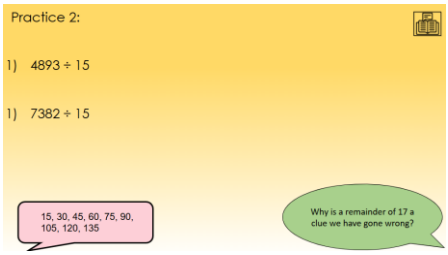


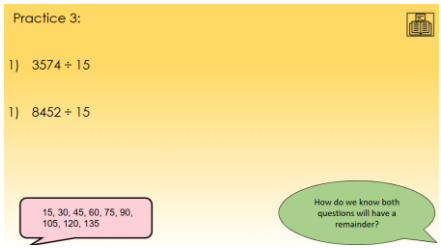
Appendix- Stages of Practice

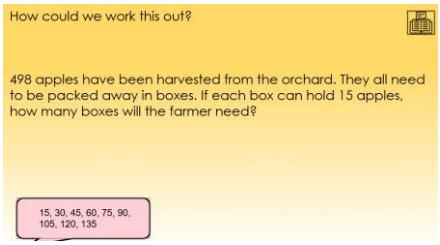
3.1 This sequence of learning demonstrates modelling, small steps, high success rates and scaffolded practice. The objective is to be able to divide by two digits numbers. By repetitively dividing by 15 the children focus solely on the method. The children will later in the sequence of learning be able to divide by different two digit numbers with the method secured. Pink bubbles offer support and green bubbles challenge with a mastery approach. The children will experience high success rates moving on into the independent practice stage. This procedure is replicable across the curriculum.

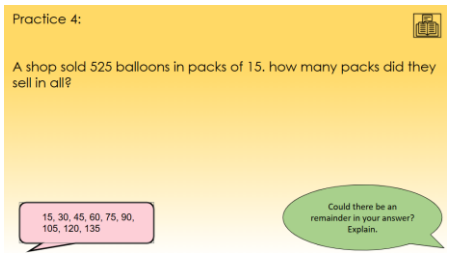


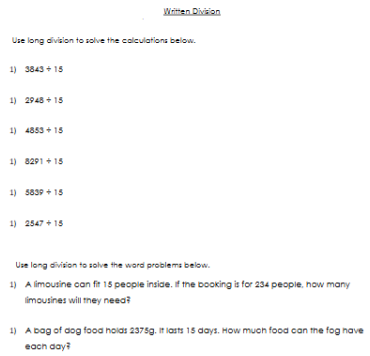











Written Division

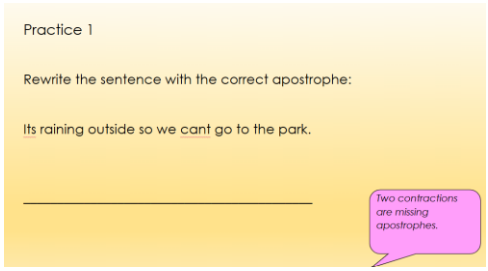
Use long division to solve the calculations below.

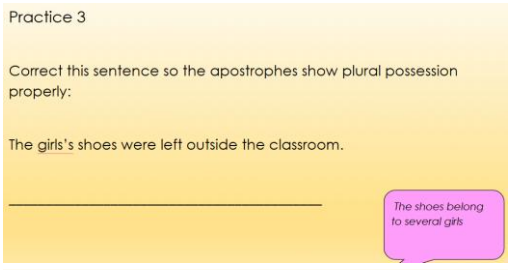
1) 3845 ÷ 15
1) 2948 ÷ 15
1) 4853 ÷ 15
1) 8291 ÷ 15
1) 5839 ÷ 15
1) 2547 ÷ 15

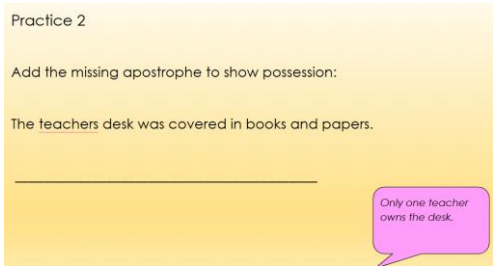
Use long division to solve the word problems below.

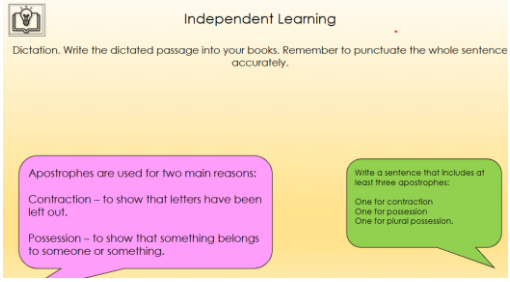
1) A limousine can fit 15 people inside. If the booking is for 234 people, how many limousines will they need?
1) A bag of dog food holds 2375g. It lasts 15 days. How much food can the fog have each day?

3.2 This sequence of learning demonstrates scaffolded practice and high success rates. The objective is to be able to use apostrophes accurately. By focusing solely on placing the apostrophes in the correct place, with Pink bubbles guiding support, children build on the skill to then be able to use them independently. The Independent practice uses sentences that focus on the placement of apostrophes through dictated transcription . The children will experience high success rates moving on into the independent practice stage. Later in the sequence of learning, it would be expected that they can then use apostrophes accurately in their own independent writing. This procedure is replicable across the curriculum.



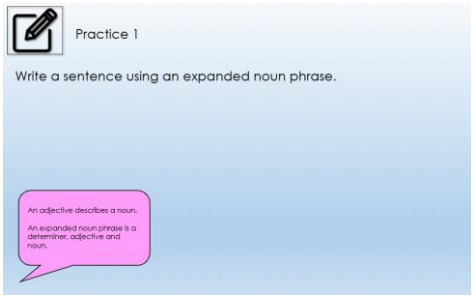


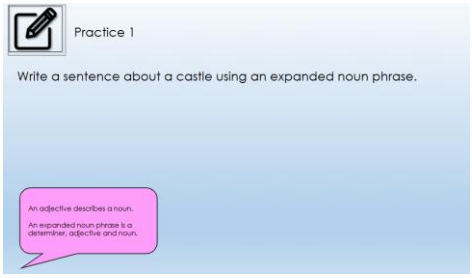


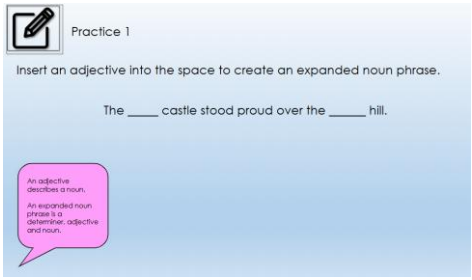


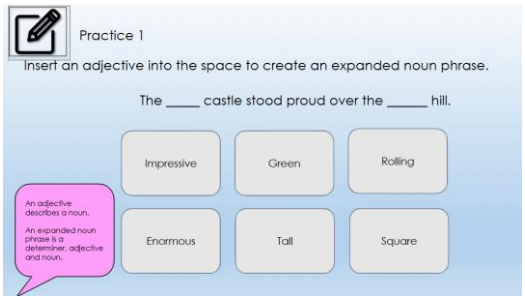
Appendix- Sequences, Concepts and Model

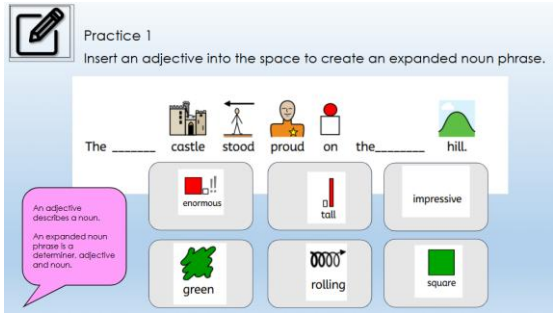
4.1 The objective here is for children to write an expanded noun phrase. In these examples the outcome is the same. Each example shows a different level of scaffold. The decision on what level of scaffold to use could vary from the age of the children, the needs of individual children, or it could even create the small steps of practice to build upon a skill. Remember a scaffold should be designed to only be temporary to avoid learnt helplessness.



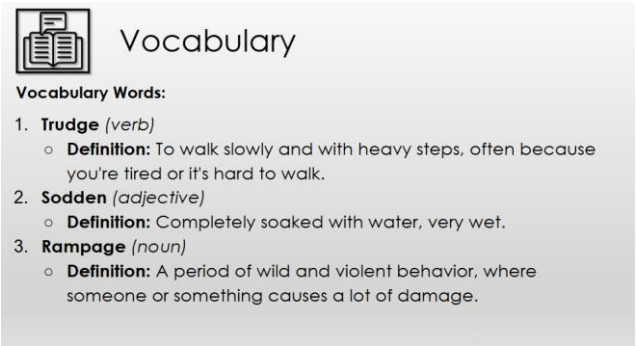


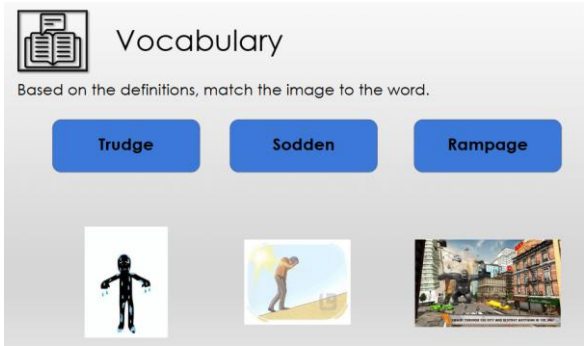




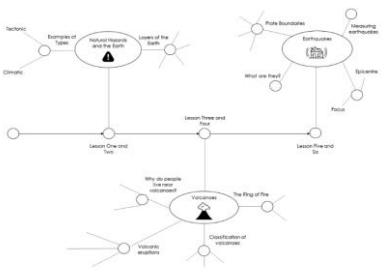


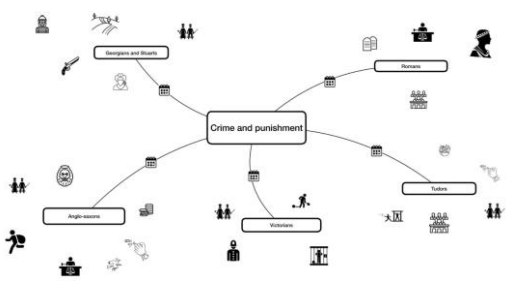
4.2 Giving the children the vocabulary they need to access any lesson is an important scaffold and part of the Ashbrook lesson design. Here the example supports a reading lesson giving the definitions of the tricky words in the text. This is then supplemented with dual coding.

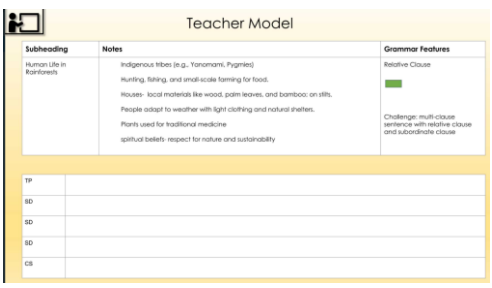




4.3 Graphic organisers support learning by helping students visually structure information, making it easier to understand and remember. They allow learners to see relationships between ideas, break complex concepts into smaller parts and organize their thoughts before writing or discussing. By providing a clear framework, graphic organisers enhance comprehension, improve critical thinking and support learners who may struggle with processing large amounts of information. They are particularly useful for planning writing, comparing and contrasting ideas and summarising learnt content.

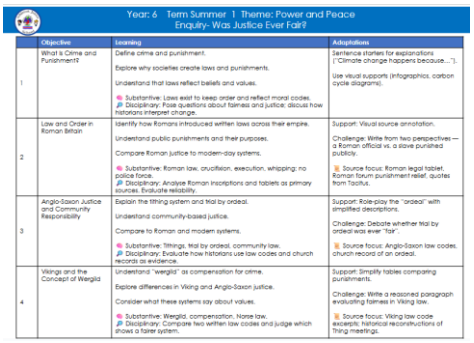






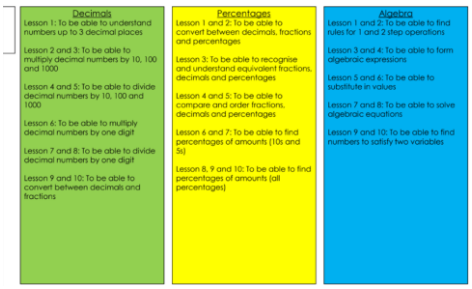
Appendix- Sequences, Concepts and Model

4.4 Here are examples of lessons well sequenced. Small steps are consistently considered to allow children to progress within that concept.



Year: 6 Term Summer 1 Theme: Power and Peace
Enquiry- Was Justice Ever Fair?

	Objective	Learning	Adaptations
1	What is Crime and Punishment?	Define crime and punishment. Explore why societies create laws and punishments. Understand that laws reflect beliefs and values. Substantive: Laws exist to keep order and reflect moral codes. Disciplinary: Pose questions about fairness and justice; discuss how historians interpret change.	Sentence starters for explanations ("Climate change happens because..."). Use visual supports (infographics, carbon cycle diagrams).
2	Law and Order in Roman Britain	Identify how Romans introduced written laws across their empire. Understand public punishments and their purposes. Compare Roman justice to modern-day systems. Substantive: Roman law, crucifixion, execution, whipping; no police force. Disciplinary: Analyse Roman inscriptions and tablets as primary sources. Evaluate reliability.	Support: Visual source annotation. Challenge: Write from two perspectives — a Roman official vs. a slave punished publicly. Source focus: Roman legal tablet, Roman forum punishment relief, quotes from Tacitus.
3	Anglo-Saxon Justice and Community Responsibility	Explain the tithing system and trial by ordeal. Understand community-based justice. Compare to Roman and modern systems. Substantive: Tithings, trial by ordeal, community law. Disciplinary: Evaluate how historians use law codes and church records as evidence.	Support: Role-play the "ordeal" with simplified descriptions. Challenge: Debate whether trial by ordeal was ever 'fair'. Source focus: Anglo-Saxon law codes, church record of an ordeal.
4	Vikings and the Concept of Wergild	Understand "wergild" as compensation for crime. Explore differences in Viking and Anglo-Saxon justice. Consider what these systems say about values. Substantive: Wergild, compensation, Norse law. Disciplinary: Compare two written law codes and judge which shows a fairer system.	Support: Simplify tables comparing punishments. Challenge: Write a reasoned paragraph evaluating fairness in Viking law. Source focus: Viking law code excerpts; historical reconstructions of Thing meetings.



Decimals

Lesson 1: To be able to understand numbers up to 3 decimal places

Lesson 2 and 3: To be able to multiply decimal numbers by 10, 100 and 1000

Lesson 4 and 5: To be able to divide decimal numbers by 10, 100 and 1000

Lesson 6: To be able to multiply decimal numbers by one digit

Lesson 7 and 8: To be able to divide decimal numbers by one digit

Lesson 9 and 10: To be able to convert between decimals and fractions

Percentages

Lesson 1 and 2: To be able to convert between decimals, fractions and percentages

Lesson 3: To be able to recognise and understand equivalent fractions, decimals and percentages

Lesson 4 and 5: To be able to compare and order fractions, decimals and percentages

Lesson 6 and 7: To be able to find percentages of amounts (10s and 5s)

Lesson 8, 9 and 10: To be able to find percentages of amounts (all percentages)

Algebra

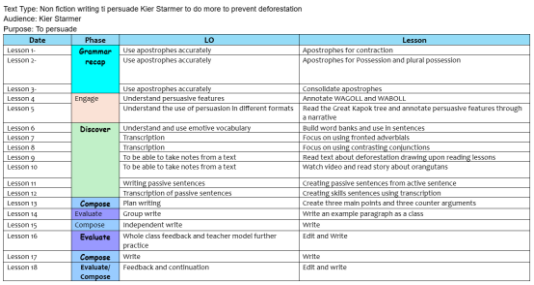
Lesson 1 and 2: To be able to find rules for 1 and 2 step operations

Lesson 3 and 4: To be able to form algebraic expressions

Lesson 5 and 6: To be able to substitute in values

Lesson 7 and 8: To be able to solve algebraic equations

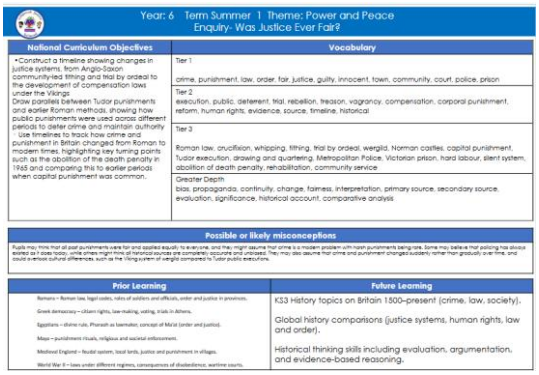
Lesson 9 and 10: To be able to find numbers to satisfy two variables



Text Type: Non fiction writing ti persuade Kier Starmer to do more to prevent deforestation
Audience: Kier Starmer
Purpose: To persuade

Date	Phase	LO	Lesson
Lesson 1-	Grammar recap	Use apostrophes accurately	Apostrophes for contraction
Lesson 2-		Use apostrophes accurately	Apostrophes for Possession and plural possession
Lesson 3-		Use apostrophes accurately	Consolidate apostrophes
Lesson 4	Engage	Understand persuasive features	Annotate WAGOLL and WABOLL
Lesson 5		Understand the use of persuasion in different formats	Read the Great Kapok tree and annotate persuasive features through a narrative
Lesson 6	Discover	Understand and use emotive vocabulary	Build word banks and use in sentences
Lesson 7		Transcription	Focus on using fronted adverbials
Lesson 8		Transcription	Focus on using contrasting conjunctions
Lesson 9		To be able to take notes from a text	Read text about deforestation drawing upon reading lessons
Lesson 10		To be able to take notes from a text	Watch video and read story about orangutans
Lesson 11		Writing passive sentences	Creating passive sentences from active sentence
Lesson 12		Transcription of passive sentences	Creating skills sentences using transcription
Lesson 13	Compose	Plan writing	Create three main points and three counter arguments
Lesson 14	Evaluate	Group write	Write an example paragraph as a class
Lesson 15	Compose	Independent write	Write
Lesson 16	Evaluate	Whole class feedback and teacher model further practice	Edit and Write
Lesson 17	Compose	Write	Write
Lesson 18	Evaluate/ Compose	Feedback and continuation	Edit and write

4.5 Medium term plans support previous learning to consider when sequencing lessons and creating lesson plans. Medium term plans support clear vocabulary choices and support for the children. They clearly define the knowledge the children will need to know and this enables us to sequence lessons effectively.



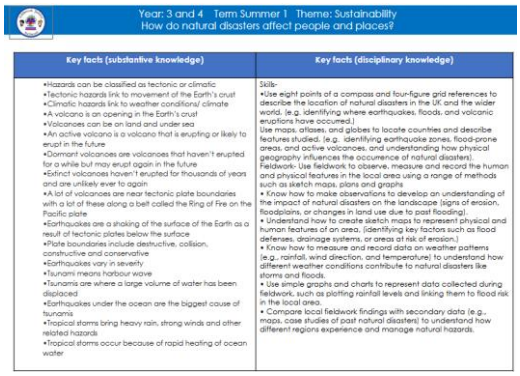
Year: 6 Term Summer 1 Theme: Power and Peace
Enquiry- Was Justice Ever Fair?

National Curriculum Objectives	Vocabulary
•Construct a timeline showing changes in justice systems, from Anglo-Saxon community-led tithing and trial by ordeal to the development of compensation laws under the Vikings Draw parallels between Tudor punishments and earlier Roman methods, showing how public punishments were used across different periods to deter crime and maintain authority Use timelines to track how crime and punishment in Britain changed from Roman to modern times, highlighting key turning points such as the abolition of the death penalty in 1965 and comparing this to earlier periods when capital punishment was common.	Tier 1 crime, punishment, law, order, fair, justice, guilty, innocent, town, community, court, police, prison Tier 2 execution, public, deterrent, trial, rebellion, treason, vagrancy, compensation, corporal punishment, reform, human rights, evidence, source, timeline, historical Tier 3 Roman law, crucifixion, whipping, tithing, trial by ordeal, wergild, Norman castles, capital punishment, Tudor execution, drawing and quartering, Metropolitan Police, Victorian prison, hard labour, silent system, abolition of death penalty, rehabilitation, community service Greater Depth bias, propaganda, continuity, change, fairness, interpretation, primary source, secondary source, evaluation, significance, historical account, comparative analysis

Possible or likely misconceptions

Pupils may think that all past punishments were fair and applied equally, to everyone, and they might assume that crime is a modern problem with harsh punishments being rare. Some may believe that policing has always existed as it does today, while others might think all historical sources are completely accurate and unbiased. They may also assume that crime and punishment changed suddenly rather than gradually over time, and could overlook cultural differences, such as the Viking system of wergild compared to Tudor public executions.

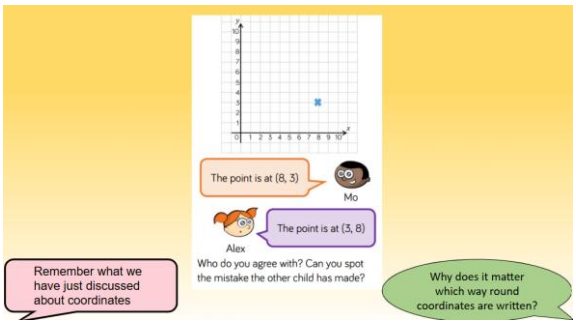
Prior Learning	Future Learning
Romans – Roman law, legal codes, roles of soldiers and officials, order and justice in provinces. Greek democracy – citizen rights, law-making, voting, trials in Athens. Egyptians – divine rule, Pharaoh as lawmaker, concept of Ma'at (order and justice). Maya – punishment rituals, religious and societal enforcement. Medieval England – feudal system, local lords, justice and punishment in villages. World War II – laws under different regimes, consequences of disobedience, wartime courts.	KS3 History topics on Britain 1500–present (crime, law, society). Global history comparisons (justice systems, human rights, law and order). Historical thinking skills including evaluation, argumentation, and evidence-based reasoning.

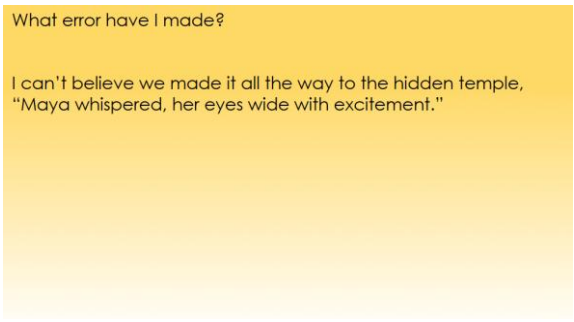


Year: 3 and 4 Term Summer 1 Theme: Sustainability
How do natural disasters affect people and places?

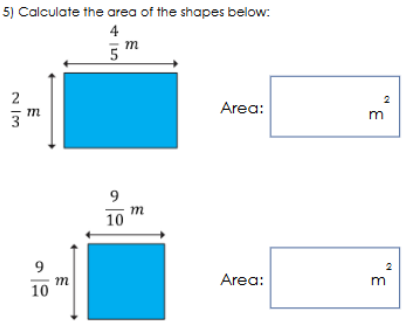
Key facts (substantive knowledge)	Key facts (disciplinary knowledge)
•Hazards can be classified as tectonic or climatic •Tectonic hazards link to movement of the Earth's crust •Climatic hazards link to weather conditions/ climate •A volcano is an opening in the Earth's crust •Volcanoes can be on land and under sea •An active volcano is a volcano that is erupting or likely to erupt in the future •Dormant volcanoes are volcanoes that haven't erupted for a while but may erupt again in the future •Extinct volcanoes haven't erupted for thousands of years and are unlikely ever to again •A lot of volcanoes are near tectonic plate boundaries with a lot of these along a belt called the Ring of Fire on the Pacific plate •Earthquakes are a shaking of the surface of the Earth as a result of tectonic plates below the surface •Plate boundaries include destructive, collision, constructive and conservative •Earthquakes vary in severity •Tsunami means harbour wave •Tsunamis are where a large volume of water has been displaced •Earthquakes under the ocean are the biggest cause of tsunamis •Tropical storms bring heavy rain, strong winds and other related hazards •Tropical storms occur because of rapid heating of ocean water	Skills- •Use eight points of a compass and four-figure grid references to describe the location of natural disasters in the UK and the wider world. (e.g. identifying where earthquakes, floods, and volcanic eruptions have occurred.) Use maps, atlases, and globes to locate countries and describe features studied. (e.g. identifying earthquake zones, flood-prone areas, and active volcanoes, and understanding how physical geography influences the occurrence of natural disasters). Fieldwork- Use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods such as sketch maps, plans and graphs • Know how to make observations to develop an understanding of the impact of natural disasters on the landscape (signs of erosion, floodplains, or changes in land use due to past flooding). • Understand how to create sketch maps to represent physical and human features of an area, (identifying key factors such as flood defenses, drainage systems, or areas at risk of erosion.) • Know how to measure and record data on weather patterns (e.g., rainfall, wind direction, and temperature) to understand how different weather conditions contribute to natural disasters like storms and floods. • Use simple graphs and charts to represent data collected during fieldwork, such as plotting rainfall levels and linking them to flood risk in the local area. • Compare local fieldwork findings with secondary data (e.g., maps, case studies of past natural disasters) to understand how different regions experience and manage natural hazards.

4.6 Modelling misconceptions across all subjects builds resilience and a deeper understanding for children.





4.7 Linking multiplying fractions with finding the area of quadrilateral builds conceptual understanding by showing how ideas connect.



5) Calculate the area of the shapes below:

$\frac{4}{5}$ m

$\frac{2}{3}$ m

Area: m²

$\frac{9}{10}$ m

$\frac{9}{10}$ m

Area: m²