

Numeracy Specialist

Long curriculum plan





1. Philosophy

Six underlying attributes at the heart of Oak's curriculum and lessons.

Lessons and units are **knowledge and vocabulary rich** so that pupils build on what they already know to develop powerful knowledge.

Knowledge is **sequenced** and mapped in a **coherent** format so that pupils make meaningful connections.

Our **flexible** curriculum enables schools to tailor Oak's content to their curriculum and context.

Our curriculum is **evidence informed** through rigorous application of best practice and the science of learning.

We prioritise creating a **diverse** curriculum by committing to diversity in teaching and teachers, and the language, texts and media we use, so all pupils feel positively represented.

Creating an **accessible** curriculum that addresses the needs of all pupils is achieved to accessibility guidelines and requirements.



2. Units



SPECIALIST Numeracy is formed of 12 units and this is the recommended sequence:

Unit Title	Recommended year group	Number of lessons
1 Number	Applying Learning	4
2 Shape & Sorting	Applying Learning	4
3 Measurement	Applying Learning	4
4 Time	Applying Learning	4
5 Position & Direction	Applying Learning	4
6 Money	Applying Learning	4
7 Number	Building Understanding	4
8 Shape & Sorting	Building Understanding	4

9 Measurement

**Building
Understanding**

4

10 Time

**Building
Understanding**

4

11 Position & Direction

**Building
Understanding**

4

12 Money

**Building
Understanding**

4





3. Lessons

Unit 1 Number

4 Lessons

Lesson number	Lesson question	Pupils will learn
1.	Counting individual objects	In this lesson, pupils will develop an understanding of one-to-one correspondence up to 9.
2.	Counting to 12	In this lesson, pupils will learn to count to 12 by rote.
3.	One more/One Less	In this lesson, pupils will learn to calculate one more and one less from a group of objects up to 9.
4.	Counting and comparing groups	In this lesson, pupils will learn to count items individually, recognise numerals and match quantities to numerals.



Lesson number	Lesson question	Pupils will learn
1.	Comparing objects by size	In this lesson, children will compare familiar objects by size, using associated vocabulary to label items.
2.	Sorting objects by shape and size	In lesson 2 of 4, children will use the vocabulary learned in lesson 1 to sort objects by one criterion. They will explore the sorting of household objects and apply this to the practical context of storing food items after shopping.
3.	Identifying simple 2D shapes from a pattern	In this lesson, children will look at common 2D shapes and learn some of the vocabulary associated with their properties. They will learn to identify these shapes and practice using mathematical vocabulary to show they recognise what makes each shape different from the others.
4.	Creating patterns using simple shapes	In this lesson, children will recap the vocabulary associated with 2D shapes and will use their understanding of the properties of shapes to make them in a practical activity. They will go on the sequence these shapes as part of a repeating pattern.



Lesson number	Lesson question	Pupils will learn
1.	Comparing and ordering similarly sized items by height	In this lesson, children will compare different items to find short and tall items when comparing two. They will begin to order multiple items by height.
2.	Comparing items based on their size	In this lesson, children will explore different items found on a nature walk - looking at length and thickness of different natural resources they may find.
3.	To compare items using mathematical vocabulary	In this lesson, pupils will begin to identify and describe items as 'full' or 'empty' and 'heavy' or 'light'.
4.	Measuring liquids and lifting items to identify and compare weights	In this lesson, pupils will explore a range of items to identify how much should go into a cup and explore the weights of different objects from the home. Pupils will apply this to making their own drinks and helping putting the shopping away.



Lesson number	Lesson question	Pupils will learn
1.	Learn to name the days of the week	In this video lesson, children will see and hear the names of days of the week. They will be given strategies they can use to learn these and recognise which one is missing.
2.	Sequencing the days of the week	Children will learn to sequence the days of the week and will then apply this to use or respond to the terms such as 'today', 'yesterday' and 'tomorrow'.
3.	Knowing what happens on different days	The idea of a visual timetable is introduced and children will answer questions to show they understand how it works. They will then do the same for their own visual timetable or diary.
4.	Creating a visual timetable	In this lesson, children should be more proactive in constructing their own visual timetable. The lesson is flexible to allow the most appropriate format for each young person, while some examples are given too. Children should apply their understanding from previous lessons in unit 4 to create a visual representation of when things happen and in what sequence.



Lesson number	Lesson question	Pupils will learn
1.	Following instructions for prepositional language (Part 1)	In this lesson, children will learn the words 'in', 'on' and 'under'. They will undertake two activities where they will respond to and then go on to use these terms, reinforcing with manipulation of familiar objects.
2.	Following instructions for prepositional language (Part 2)	In this lesson, children will have opportunities to practise and apply their understanding of the prepositional language learned in lesson 1 of unit 5. They are encouraged to think about where this skill can be used.
3.	Responding to forwards and backwards	In this lesson, the vocabulary of forwards and backwards is introduced through the use of familiar objects. Children will have the opportunity to experience these words as actions and apply them using a game.
4.	Following directional instructions	In this lesson, children will recap the vocabulary learned in this unit and then apply this to an obstacle course around the home. They will show that they can recognise and respond to directional and positional vocabulary.



Lesson number	Lesson question	Pupils will learn
1.	Identifying more and less with money	In this lesson, children will compare prices up to 9p, using the terms 'more' and 'less'.
2.	Exchanging appropriate quantities for an item	In this lesson, children will begin to match the quantity of coins to a price tag and exchange these for an item.
3.	Understanding 'enough' and 'not enough' in the context of money	In this lesson, children will begin to explore the concept of 'enough' in relation to prices
4.	Exchanging coins in a real life setting	In this lesson, children will begin to explore exchanging coins for an item in a real-life setting. The supporting adult must take every precaution to keep the child, young person and public safe through appropriate hygiene and personal protective equipment as required. If this cannot be maintained, this lesson should remain as a role play exercise.



Lesson number	Lesson question	Pupils will learn
1.	Counting individual objects (one-to-one correspondence)	In this lesson, children will count individual objects that are presented in different arrangements.
2.	Counting to 5	In this lesson, children will count to 5 using correct number names. They will recognise numerals and relate them to the correct number names.
3.	Comparing groups of objects	In this lesson, children will compare and describe two groups of up to 5 objects using 'more' and 'less'.
4.	Reinforcement of counting and comparing the number of objects to 5	In this lesson, children will reinforce counting and comparing skills using the numbers 1-5. They will recognise and match numerals and use different number names for each number.



Lesson number	Lesson question	Pupils will learn
1.	Recognising and matching 2D shapes to a template	In this lesson, children will identify rectangles, circles and triangles and be able to match similar shapes of different sizes. Children will recognise 2D shapes on the faces of objects in the real world.
2.	Making a model with 3D shapes	In this lesson, children will explore 3D shapes using familiar objects from around the home. They will learn about their properties through practical exploration of these items.
3.	Repeating a pattern	In this lesson, children will continue a repeating pattern using 2 different objects and 2 different colours.
4.	Repeating a sequence	In this lesson, children will explore a sequence of sounds, which they should copy and then continue. They will go on to create their own repeating sequence.



Lesson number	Lesson question	Pupils will learn
1.	Comparing big and small objects	In this lesson, children will learn the mathematical vocabulary big and small. They will compare 2 objects and 2 towers to identify the biggest and smallest.
2.	Understanding bigger and smaller with actions	In this lesson, children will apply mathematical vocabulary 'bigger' and 'smaller' to actions.
3.	Comparing and matching objects based on their size	In this lesson, children will compare objects as big or small and match them to corresponding objects or characters also described as big or small when compared.
4.	Comparing and matching items based on the size and properties	In this lesson, children compare items of different sizes using the terms 'bigger' and 'smaller'. They use this knowledge to organise and sort items from the home.



Lesson number	Lesson question	Pupils will learn
1.	Understanding day and night through a sensory story	In this lesson, children will learn to recognise and describe day and night using different sensory experiences.
2.	Identifying events from daytime and night-time	In this lesson, children will learn the difference between daytime and night-time, and will relate familiar events to these times. They will learn to sort events between daytime and night-time, and work towards stating facts about when events happen using key vocabulary.
3.	Linking meals to times of the day	In this lesson, children will identify appropriate meals that may be eaten during different times of the day.
4.	Sequencing meals throughout the day	In this lesson, children will recap what they know about when meals are eaten. They will go on to use this to plan their own meals, showing that they know which meals are eaten at each mealtime.



Lesson number	Lesson question	Pupils will learn
1.	Exploring position	In this lesson, children will explore which objects may be placed on or in another object by stacking and nesting.
2.	Exploring position: Applying skills	In this lesson, children will learn about how some objects can be stacked and some fit together, applying their understanding of 'same' and 'different'. They will then use this skill to tidy objects away.
3.	Exploring position and direction of different objects	In this lesson, children will explore different sized objects and how they fit into different sized boxes.
4.	Exploring position and direction of different objects: Constructing a sculpture	In this lesson, children will use recycled materials to construct a sculpture. Along the way, they will explore how objects can fit together and the relative positions of two or more objects. They will listen to and respond to key vocabulary associated with the position of objects.



Lesson number	Lesson question	Pupils will learn
1.	Matching coins to templates	In this lesson, children will identify properties of coins for example colour, shape and size. They will be able to match real coins to coin templates, describing their properties.
2.	Exchanging a coin for an item	In this lesson, children will begin to understand the exchange of a coin for desired items in a role play situation.
3.	Exchanging coins for an item	In this lesson, children will select a desired item to buy and count out the correct number of pennies to exchange for it.
4.	Exchanging coins in a real life setting	In this lesson, children will begin to explore exchanging coins for an item in a real-life setting. The supporting adult must take every precaution to keep the young person and public safe through appropriate hygiene and personal protective equipment as required. If this cannot be maintained, this lesson should remain as a role playing exercise.