EARLY FOUNDATIONS

CURRICULUM WITH UNITY SCHOOLS PARTNERSHIP

MATHS

Age 4 – 5

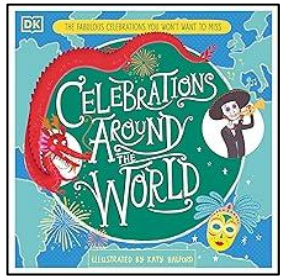
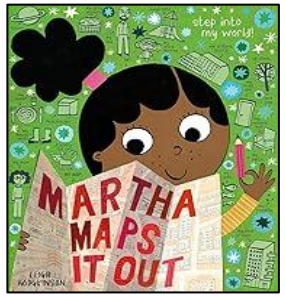
Spring Block 8

Counting 9 - 10

Learning Sequence: Age 4 – 5 Block 8 Counting

Foundational knowledge	Develop stable order principle; count items touching 1:1; recognise numerals to 10; subitise to 10 and match numerals with a number of items to 10.	
Key mathematical language (essential vocabulary)	**Threshold vocabulary** nine, ten	**Clarification vocabulary** numeral, count, more, total, jump, group, same, mistake
Sentence stems	How many? How do you see it? Can you see it another way?	
Resources required	number track (0 – 10) numerals to 10 (in different representations, including handwritten) a range of objects to count paper plates with dot arrangements counting objects pupils – tens frame and double-sided counters	
At the end of this unit, pupils will …	**Know** • the counting sequence is always the same (stable order principle) • you can count things of different sizes and things that cannot be seen (sounds and actions) • the last number counted gives the total so far • the number of objects remains the same even if the arrangement changes (conservation of number).	**Be able to** • count to ten in sequence • count objects of different sizes, count actions and sounds, count objects that cannot be moved (e.g. images) • count the number of objects and know that the stopping number gives the value • identify groups of nine and ten within larger arrangements • match a numeral with the number of objects.
Prompting questions for thinking hard	What is one more than ____? What is the same and what is different about _____? Can you show me this number in another way (e.g. tens frame, number track, group with different organisation)? Is this the right order? Is this still the same number if I move the dots around?	

Learning Sequence: Age 4 – 5 Block 8 Counting

Opportunities and experiences	Construction	Creative	Role play
 Encourage counting when sharing a story. How many children are celebrating Easter? Let's count them. How many aeroplanes are there on Bastille day?  Use a double-page spread. Can you spot a building that has more than 9 windows? Can you find a page that has 10 stars?	Provide equipment in the outdoor area. Can you use 9 / 10 objects to create an obstacle course? Provide keys with tags showing arrays (0 – 10). Can you find the matching padlock and place in the basket with the correct numeral displayed? Can you create a house that has enough space for ten characters to sleep?	Provide Numicon© shapes that represent 9 and 10. Using tweezers, how many can you fill with pom-poms*? Provide interesting and different pieces of paper in the shape of a square. Using scissors can you cut the paper into 9 / 10 pieces? Once finished can you put them back together to make a square? Use a tissue box to create an animal. Using a spoon* can you feed the animal ten biscuits? * Different items could be selected depending on the pupils' fine-motor skills.	Organise a shop. Label the items to have different amounts (0 – 10) counters. Provide pupils with purses that include small counters. They then pay for the item they select by counting out the correct number of counters. Provide a basket of washing with more than 10 items. Display the numeral 10 on top of a washing machine. Only 10 items can go into the washing machine OR alternatively only 10 items can be hung on the washing line. Provide items of matching food and tubs with numerals displayed. The shopkeeper has got in a muddle and needs help. These items need to be sold in packs of 9 / 10. Can you help sort them into the correct tubs?

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 1/2					
Connect	**Vocabulary**	**Explain**	**Example**	**Attempt** (checking for understanding)	**Guided**
Lesson 1 – getting to know nine					
Show pupils the numerals 6 – 8 and ask them to show the corresponding number on their fingers.	Instruct the key vocabulary – *nine* (x3).	Introduce pupils to nine. We are learning about the number nine today. Show nine of a range of different objects (including different-sized objects) and show different arrangements of nine, e.g. on a tens frame. Remind pupils that the numeral is the way we write the number. *This is the numeral nine.*	Point to the numeral nine on the number track. *I have nine teddies. I have nine counters. There are nine dots on this dotty plate. I can do nine claps.* Model showing nine fingers and ask pupils to copy this. Show different representations of the numeral nine.	Tell pupils to take their counters out. Then, ask them to count out nine counters from their larger collection. *Do nine claps. Show me nine fingers.*	Share a number of different representations showing the number nine. Model counting 1:1, emphasising the final number counted, i.e. nine. Ask pupils to take out their counters. *Can you count nine blue counters? Can you count nine red counters?*
Lesson 2 – getting to know ten					
Clap a number between 0 – 9. Pupils listen and show the corresponding number on their fingers.	Instruct the key vocabulary – *ten* (x3).	Introduce pupils to ten. We are learning about the number ten today. Show ten of a range of different objects (including different-sized objects) and show different arrangements of ten, e.g. on a tens frame. Remind pupils that the numeral is the way we write the number. *This is the numeral 10.*	Point to the numeral ten on the number track. *I have ten teddies. I have ten counters. There are ten dots on this dotty plate. I can do ten claps.* Model taking ten objects from a larger number of objects. Show different representations of the numeral ten.	Tell pupils to take their counters out. Then, ask them to count out ten counters from their larger collection. *Do ten claps. Show me ten fingers.*	Share a number of different representations showing the number ten. Model counting 1:1, emphasising the final number counted, i.e. ten. Ask pupils to take out their counters. *Can you count ten blue counters? Can you count ten red counters?*

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 1/2					
Connect	**Vocabulary**	**Explain**	**Example**	**Attempt** (checking for understanding)	**Guided**
Lesson 3 – eight and nine					
Show pupils the numerals 0 – 8 and ask them to point to the corresponding number on their number track.	Revisit the key vocabulary – *more* (x3): a larger or extra number or amount.	Explain that nine is one more than eight. Model this jump on the number track. *I have eight objects. One more than eight is nine. I have nine objects.*	Model placing eight counters on a tens frame. Pick up one more counter and place it on the tens frame. *I now have nine counters on my tens frame. One more counter than eight counters is nine counters.*	Pick up eight objects. *Can you pick up one more? How many objects do you now have? Show me on your fingers.*	Place eight objects in your basket. Put one more of those objects in your basket. *How many objects are in your basket now?* Repeat with the tens frame. Ask pupils to point to the number eight on the number track and make a jump of one more. *What is one more than eight?*
Lesson 4 – nine and ten					
Show pupils the numerals 0 – 9 and ask them to show one more on their fingers.	Revisit the key vocabulary – *more* (x3): a larger or extra number or amount.	Explain that ten is one more than nine. Model this jump on the number track. *I have nine objects. One more than nine is ten. I have ten objects.*	Model placing nine counters on a tens frame. Pick up one more counter and place it on the tens frame. *I now have ten counters on my tens frame. One more counter than nine counters is ten counters.*	Pick up nine objects. *Can you pick up one more? How many objects do you now have? Show me on your fingers.*	Place nine objects in your basket. Put one more of those objects in your basket. *How many objects are in your basket now?* Repeat with the tens frame. Ask pupils to point to the number nine on the number track and make a jump of one more. *What is one more than nine?*

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 1/2

Connect	Vocabulary	Explain	Example	Attempt (checking for understanding)

Lesson 5 – flexible content

The purpose of this lesson is to provide teachers with an opportunity to respond to pupil outcomes from the rest of the teaching week. This time should be used strategically to move pupils' thinking forwards. This lesson can be moved to a different position in the week to ensure it is used where and when it is needed. Although not an exhaustive list, below are some suggestions of how this time can be utilised to maximise impact.

Revisit areas in which pupils would benefit from further consolidation.

Respond to pupils' interests.

Deepen pupils' thinking about the subject matter.

Pre-teach vocabulary or background knowledge.

Guided

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 2/2

Connect	Vocabulary	Explain	Example	Attempt (checking for understanding)	Guided
Lesson 1 – understand the meaning of total					
Use a puppet on the number track (0 - 9). The puppet points to a number on the number track. *If I count on one, my number will be _____ .*	Revisit the key vocabulary – *total* (x3): the last number said is the total so far.	Remind pupils that when we count, the last number said is the total so far. Model counting using the tens frame and counters (0 – 10).	Model picking a digit card (0 – 10) from a bag. Then, place that number of counters on the tens frame. Use a finger to count the counters and say the total aloud.	Pick a digit card from the bag (0, 9 or 10). Place the correct number of counters on the tens frame. Use a finger to count the counters and say the total aloud. *Show me the number on your fingers.*	The teacher models showing the numbers 0, 9 and 10 on their tens frame. The teacher then models using a finger to count the counters to find the total. Pick a digit card from the bag (0, 9 or 10). Place the correct number of counters on the tens frame. Using a finger, count the counters to find the total. *Show me the number on your fingers.*
Lesson 2 – count objects from a larger group					
Show dotty plates (0 – 5). Pupils whisper the number that is shown.	Revisit the key vocabulary – *group* (x3): a set of objects.	There are times when we need to count from a group of objects. Place a pile of matching objects in the centre of the circle. *I have one group of objects and I need nine.* Think aloud and model counting out nine objects from the larger group and place them in a row in front of the pupils, counting aloud, 1, 2, 3, 4, 5, 6, 7, 8 and 9. Repeat for the number 10.	Model counting three pupils from the class to join you in the centre of the circle. Explain that each of them will be given a digit card (0, 9 or 10) and the number displayed will be the total number of teddies they will receive. Ask Pupil A to share their digit card and then model counting the objects from the larger group. Repeat with Pupil B and then Pupil C.	In the centre of the circle, position pots of objects (e.g. teddies, pom-poms, cubes). Then, give each pupil a digit card (9 or 10) and ask them to count from the larger group the correct number of objects. Pupils say aloud: *I have _____ teddies in my group.*	The teacher models picking a digit card and counting from the larger group the total number of objects shown on the digit card. Repeat for the numbers 0, 9 and 10 (modelling, My turn, Your turn). Shuffle the digit cards and ask each pupil to choose one and complete the sentence stem below independently. *I have _____ teddies in my group.*

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 2/2					
Connect	**Vocabulary**	**Explain**	**Example**	**Attempt** (checking for understanding)	**Guided**
Lesson 3 – match the numeral with the number of items					
Play a clip that shows a tens frame with numbers 9 and 10. Pupils whisper the number that is shown.	Revisit the key vocabulary – *same* (x3): the same number.	Remind pupils that a number can be shown in different representations (ways). Show a numeral on a digit card. Then, show the same number on a tens frame and on a number track. Draw attention to the connections between the different representations. This is the same number. Repeat, modelling with a different number.	Pick a digit card (9-10). Model placing the correct number of counters on the tens frame and placing the correct number of teddies on the number track.	Pick a digit card (0, 9 and 10). Ask pupils to place the correct number of counters on their tens frame and then ask them to place the correct number of teddies on the number track.	Prepare numerals 0, 9 and 10. Give each pupil a tens frame and ask them to place the correct number of counters on the tens frame to represent the number 10. *What do you notice?* Then place under the numeral 10. Repeat for the numbers 0 and 9.

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 2/2

Connect	Vocabulary	Explain	Example	Attempt (checking for understanding)	Guided
Lesson 4 – one less					
Sing *One, two, buckle my shoe …*	Revisit the key vocabulary – *less* (x3): a smaller amount.	Sometimes, we can use our number knowledge to help find an answer. Explain that the same type of animal must travel together. Each crate / tray has the number of animals displayed. *I have a group of bears. In this crate there should be eight bears. Firstly, I need to count the group of bears. I have nine bears. That is too many.* Model pointing to the number nine on the number track and then the number eight. *I need one less.* *could use small world fruit or counters	Prepare another group of animals and another crate / tray. *I have a group of tigers. In this crate, there should be ten tigers. First, I need to count the group of tigers. I have nine tigers. That is not enough.* Model pointing to the number nine on the number track and then the number ten. *I need one more.*	Remind pupils that the number of animals must match the numeral on their crate / tray. Give pupils a group of animals and ask them to check whether they have the correct amount. *Using your fingers show me how many animals you have. Put your hand up if you need one more. Put your hand up if* you need one less. For those pupils that require one more, give them another animal to add to their group. For those pupils that require one less, collect the spare animal from them. Ask all pupils to count the total number of their animals. Does it match their numeral?	The teacher models picking a digit card and counting out that many double-sided counters from the large group. Place them on the tens frame, counting aloud. The total number of counters is ten. *I need to haven one less.* Remove a counter. Ask pupils to count the total number of counters. *My total is nine. One less than ten is nine.* Show the numeral eight and ask pupils to count out nine double-sided counters from the large group. Ask pupils to place them on their tens frame. Using your tens frame, what is one less than eight? Seven.

Learning Sequence: Age 4 – 5 Block 8 Counting

Part 2/2

Connect	Vocabulary	Explain	Example	Attempt (checking for understanding)	Guided

Lesson 5 – flexible content

The purpose of this lesson is to provide teachers with an opportunity to respond to pupil outcomes from the rest of the teaching week. This time should be used strategically to move pupils' thinking forwards. This lesson can be moved to a different position in the week to ensure it is used where and when it is needed. Although not an exhaustive list, below are some suggestions of how this time can be utilised to maximise impact.

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