**Lesson Objectives:**

Match numeral, amount and word. *(Recap of EYFS)*

Understand that zero represents the value of an empty set and the number that is before one in the counting sequence.

**Lesson Focus:**

Children should understand that numbers can be represented in different ways. When finding out how many there are in a group, they can do this either by counting or subitising (recognising small groups without the need to count).

**Initial Problem**

*Show page 1 of the SMART Notebook file with the initial problem. Each pair of children should have a full set of the cards between them.*



Can you put the cards into pairs?
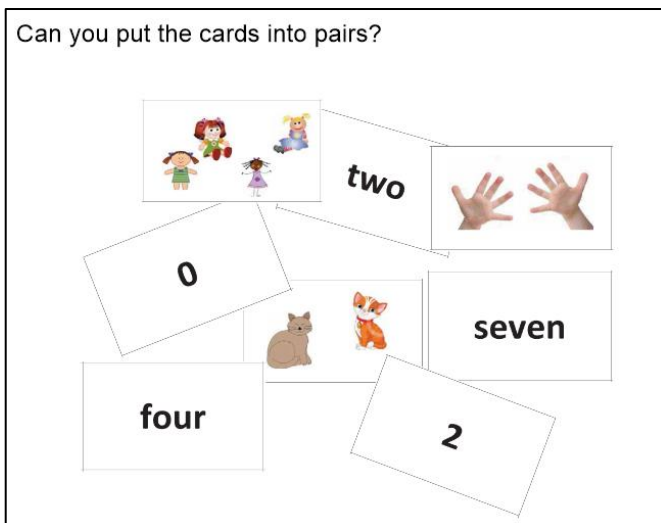
Ensure that towards the end of the activity, all children have at least matched the representation and the numeral.

**Scaffold**

Find the card that shows two objects.

Is there another card that shows two in a different way? Why do they make a pair?

Is there another pair that you could make like this?

**Extension**

Is it possible to have more than two cards in each group? How?

If you had a blank card, what would it represent? How do you know?

What other cards would be in the group? Why?

**Misconception**
*If children make pairs of, for example, representation cards for 2 and 4 because they both show pictures, this reasoning isn't wrong. For the purpose of moving the lesson forward, use the scaffold prompts to guide their thinking.*

Take feedback about pairs or groups made. Use SMART Notebook/Apple TV to show those groups. Ask questions such as:
- Do other children have the same pair/group?
- What does this number say? How can we check that this card shows the same amount?

*Ensure that children are using counting strategies (or subitising) correctly to identify how many are there. Ensure that all children ultimately have all the pairs/groups from 1 to 9.*

Discuss why some are pairs and some are groups. Discuss the fact that the words are also representations of the number and that it is possible to represent the number in a variety of different ways.

**Guided Learning**

*Allocate a number to each table, e.g. 6. Ask the children to make groups of that number using the resources on their table.*

- Are they all six?
- How do you know?

*Show page 2 of the SMART Notebook file with an image of six tennis balls and six cubes.*

- In what way are they different?
- In what way are they the same?
- How can we be sure they are the same number?

*Line up tennis balls in one line and cubes in a line below. Suggest to the children that there are more tennis balls because the line is longer. Ask children to discuss with talk partners and take feedback. Prove by dragging the cubes so there is one under each tennis ball.*

*Ask children to put equipment back. Repeat above activity with the number 3.*

- Are there the same number of items in each of your groups?
- How can you be sure?

*Show children an empty pot.*

- How many are here?

*Discuss the idea of zero being an absence of objects and any related terms the children may already know, e.g. nil, nought, none, nothing. Show symbol and word for zero.*

*Ask children to complete **Guided Learning Task 1** (write the correct numeral to match the amount) and **Guided Learning Task 2** (draw the correct amount to match the numeral). The last question is designed to show zero objects and requires children to write 0 in the box*

Guided Learning Task 1 – write number
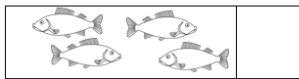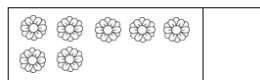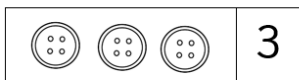


Guided Learning Task 2 – draw amount
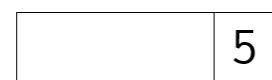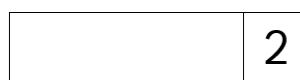


*From a box of multilink, ask children to select their favourite colour.*

- Which colour has been chosen by the most children?
- How can we find out?

*Lead children to the idea that they need to put all of the same colours together. Encourage children to put in piles on the table/carpet.*

- Does this help us to answer our question?
- How could we make it easier to count the cubes?

*Put like cubes into towers to create a simple block graph.*

- Which colour has been chosen by the most children? / Which is the most popular colour?
- How many children liked yellow? green? red? etc

*Ensure that one colour is absent from the graph, e.g. grey to test children's knowledge of zero.*

*Ask children to complete **Task 3** (write the amount underneath the towers on a block graph).*

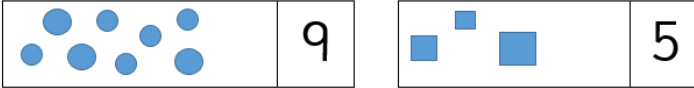Guided Learning Task 3 – put amounts on the block graph
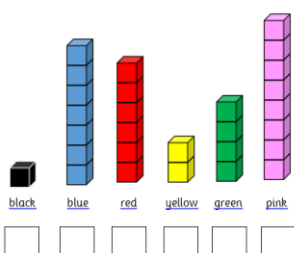
## Independent Learning

The first questions replicate Task 1 and 2 to ensure that children can complete this independently.

Children then have to identify the numeral and ensure that the amount represented is correct by drawing more items where required.

Draw **more** items to match the number

9

5

Children have to identify which of the representations show three. The aim of this question is for children to rely on their counting strategies rather than their awareness of size.
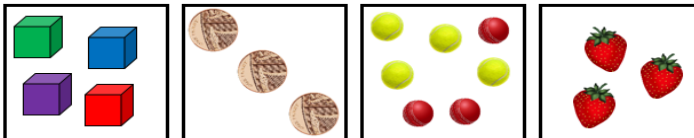
Tick the amounts showing 3
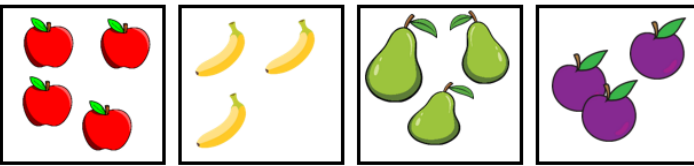
Children have to match the correct numeral to the picture representation. Not all numbers are represented to ensure that children have to think more deeply rather than simply using straightforward matching.

Match the numbers to the correct picture amounts

3     8     4     1     7

## Deeper Learning

Ali says she has more cubes than Ben. Is she right? Explain why.

*Children can record their answers to this in their maths book. They may represent it using jottings, pictures, words or symbols, modelling it first with equipment if required.*
*The aim is to ensure that children are reliant on counting or 1-1 correspondence strategies, rather than simply using the comparison of the length of the line.*

Ali says
I have more cubes than Ben.

Is she correct?
Explain why.
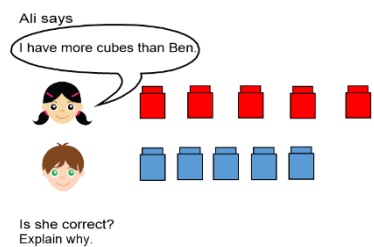
## Key Outcomes

Children are familiar with the digit representation for each of the numbers 0 to 9.
They recognise amounts regardless of the properties of the items used.
They understand zero as an absence of objects.

## Resources

Initial Problem Resource Sheet 1.1 (cut into individual cards, one set between two children)
Pots of counting resources
Coloured cubes
Children's task sheets copied (one per child)

Mastery One
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