

Number Wb 12.10.20

Monday



PREREQUISITE CHECK Describing the football in terms of its physical characteristics.

WAYS OF WORKING Whole class

Encourage children to describe the various characteristics of the football in the image. If necessary, prompt them to describe the shape, colour, size and pattern of the ball.

IN FOCUS The **Prerequisite check** practises the language of description, encouraging children to observe the properties of an object.

ASK

- What words could you use to describe this object?



STIMULUS Picture to prompt discussion
The picture of two different balls is intended to spark discussion about similarities and differences.

WAYS OF WORKING Whole class or in pairs

Encourage children to describe the physical characteristics of the football and the tennis ball and compare them in terms of what is the same and what is different. Prompt children to think about size, shape and colour.

IN FOCUS The focus is on practising the language of description and observing the properties of an object, using these observations to describe the similarities and differences between objects. This is an important foundation for being able to accurately sort a set of objects into groups.

ASK

- What is the same about these two objects?
- What is different about these two objects?
What else is different about these two objects?

GET ACTIVE Ask children to find an interesting object in the classroom to share with a partner. Encourage children to describe what is the same and what is different about their objects. Encourage them to describe the shape, colour, pattern or size. Ask: *Are there any other similarities or differences?* Ask pairs of children to describe to the class what is the same and what is different about their two objects. Ask: *Who else has an object the same as X's? How is it the same? How is it different?* Children may struggle to notice that two very different objects can be 'the same' by virtue of their colour, shape or size. If appropriate, continue with identifying pairs of objects that have something the same and something different about them (large and yellow, small and yellow;

Unit 2 Sorting

Sorting into 2 groups



Can you describe the object?



Let's look.



PREREQUISITE CHECK



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STIMULUS

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Tuesday

Discover

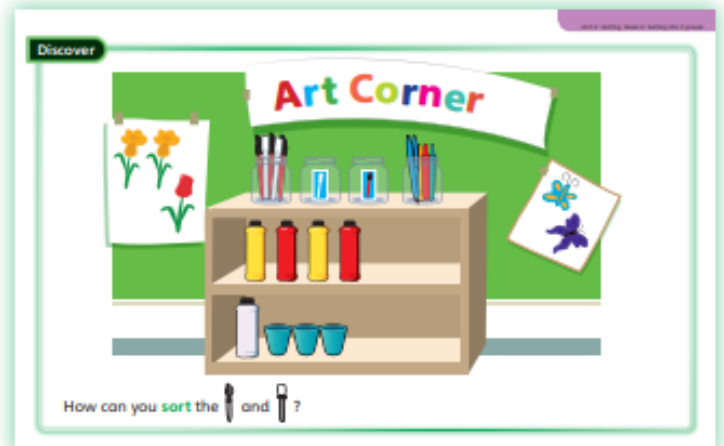
WAYS OF WORKING Whole class or small groups
Have real objects available for children to recreate the sorting activity.

IN FOCUS The focus of the **Discover** is to give children a familiar context from which to think about the concept of sorting. Tidying up equipment in the classrooms could be an activity they have not thought of as 'sorting' before. Placing this early mathematical concept in such a familiar context should give children more confidence to approach the task of sorting the paintbrushes and glue spatulas. Although the focus is sorting, build in opportunities for children to practise counting the objects, too.

ASK

- *Can you spot something that has been put in the wrong place?*
- *How many paintbrushes are there? How many glue spatulas are there? How many things are in this jar altogether?*
- *How could you sort them? What could you sort the paintbrushes and glue spatulas into? [Demonstrate with real paintbrushes and glue spatulas and some empty jars if possible.]*
- *Are there any other objects in the picture that need sorting? How do you know? How could you sort them?*

STRENGTHEN To support understanding of this sorting concept, set up a similar scene in the classroom. Muddle



glue spatulas and paintbrushes (or crayons and pens or two colours of paint pots) in a jar or basket and ask children to physically sort the objects into two jars or baskets. Encourage children to discuss what they are doing and why they are sorting as they are.

DEEPEN Ask children to sort the objects in the picture or on the table in a different way. For example, by colour or size rather than type. Can they sort the objects into more than two groups? Throughout the sorting process, encourage children to describe what they are doing out loud, to you or to a partner.



Share

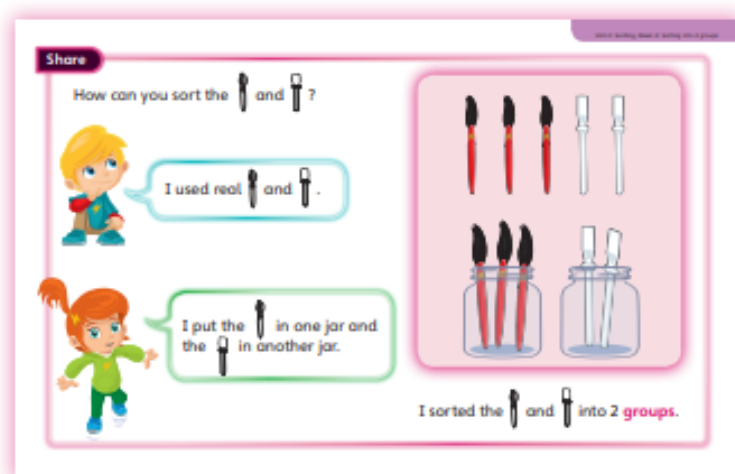
WAYS OF WORKING Whole class

IN FOCUS The focus of **Share** is to demonstrate how the objects can be clearly sorted into two distinct groups. Placing all the objects from a group in a row gives children a strategy for helping them to sort if the groups are not, at first, immediately obvious. The jars in the picture are transparent so that children can see the objects inside in their entirety, using their physical features to inform how they sort.

ASK

- *What does Dexter do to sort the objects? [Lays them all out first.] How does that help?*
- *Have the objects been sorted correctly? How do you know?*

GET ACTIVE To embed learning, ask each child to find a collection of five small treasures from around the classroom, such as toy cars or animals, blocks, shells, cubes or buttons. Ask children to sort their collection into two groups. Depending on the treasures they have chosen, children may



need to be very creative with how they sort. Offer them a starting point by suggesting they first look at colour, then size. Are there any other physical features they can sort by? If they can't find a connection, allow children to swap one or two objects.



Share

How can you sort the  and  ?



I used real  and .



I put the  in one jar and the  in another jar.



I sorted the  and  into 2 **groups**.

Wednesday

WAYS OF WORKING Whole class or small groups

IN FOCUS The focus of the **Think together** is to ask children to sort objects into two groups, guided by an image that gives them two clear ways to sort. Encourage children to discover the second way to sort for themselves by prompting them with Flo's statement: *I can see a different way!* Tease out the different methods of sorting by encouraging children to describe what is the same and what is different about the animals.

ASK

- Question 1: Which animals are shown in this picture? What do they look like? What is the same about the animals? What is different about the animals?
- Question 2: How can you sort the animals into two groups?
- Question 3: Is there another way to sort the animals into two groups?
- Question 4: Can you sort the animals into more than two groups?

STRENGTHEN Use every opportunity to strengthen and support understanding of how physical features can be used to sort groups of objects by modelling the key language of description when sorting. Ensure you are using the vocabulary *bigger, smaller, more, fewer, same, different*. Prompt children by encouraging them to look at colour,

Think together

- 1 Sort the animals into 2 groups.
- 2 Is there more than one way to sort them?

I can see a different way!

pattern, shape and size. If you have access to toy farmyard animals, set up similar groups of objects (up to 5) for children to sort and discuss – ensure the objects can be clearly sorted into two groups.

DEEPEN Give children who are secure sorting into two clearly defined groups opportunities to extend their thinking. Ask them to sort a given group of objects into more than two groups, or provide a group of objects to sort where there are two or three possible ways to sort them. Can they find all the ways to sort them? Can they find a group of objects (up to 5) for a partner to sort?

Practice: Journal 1

WAYS OF WORKING Independent thinking

IN FOCUS The focus of this **Practice** activity is to check that children can identify the groups. For the second part, check that children are familiar with the term *odd one out*. Ask: *What does it mean to be the odd one out? Can you use the words 'same' and 'different' to help you describe what this means?*

MASTERY CHECKPOINT Children who have mastered this concept can identify a group and discuss how the objects in the group could be sorted. Children can describe how the objects are the same or different, using the features of colour, size or shape. They can identify the object that is different, confidently using the term *odd one out*.

Circle each group.

Spot the odd one out.

Circle each group.



Spot the **odd one out**.



1. In the first box, there are six rabbits. Two are grey, two are white, and two are brown. In the second box, there are six pencils. Four are red and two are yellow.

Strength: Identify and group objects that are the same and different. Recognize the similarities and differences between objects and groups.

Support: In these boxes, there are six rabbits and six pencils. There are two groups of objects that are the same and two groups of objects that are different.

Thursday

Challenge

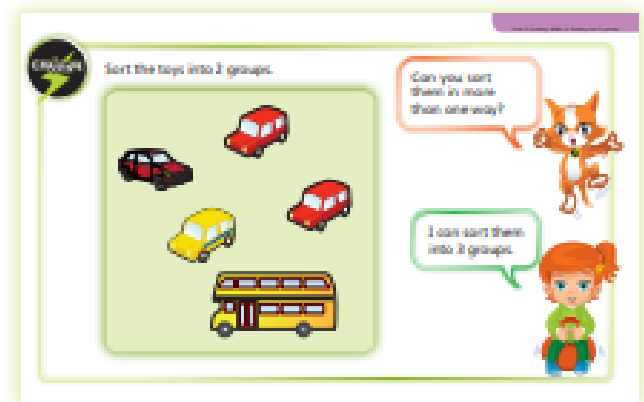
WAYS OF WORKING Whole class or small groups

IN FOCUS This **Challenge** moves children on a step from **Think together** by asking them to think about all the ways the toys can be sorted. The options are: to sort by vehicle (one car, three vans, one bus), by size (one big, four small) or by colour (three red, two yellow with a blue stripe). Children who are not yet secure in their understanding of sorting to find all the possible ways should still be able to find and explain at least one way to sort these toys.

ASK

- How many toys are there? What sort of toys are they?
- What is the same and what is different about these toys?
- How could you sort these toys into two groups? Why have you sorted them like this?
- Do you think there is another way to sort the toys?
- How many different ways can you find to sort the toys?

STRENGTHEN For children who need more support and confidence when sorting, use physical resources from the classroom to recreate the picture in this activity. The act of physically moving the toys into groups will help children process and describe what they are doing and which characteristic they are using to sort the toys (size, shape, colour). Encourage children to draw how they have sorted the group as a way of recording what they have done, and then prompt them to think about another way to sort the objects. Each time they sort a different way, ask them to record their sorting with a drawing.



DEEPEN

When children have found all the different ways, including three groups, encourage them to check, using counting to 5, that there are still 5 vehicles in each 'sort'. Some children may be able to write the numbers under each group. To extend thinking further for children who have demonstrated confidence in this activity give them a set of five 2D shapes to sort: two colours, two different shapes, two sizes. For example: one small yellow triangle, one small blue triangle, one small yellow circle, one small blue circle, one large blue circle or triangle; three cubes in two colours and two squares in the same two colours. Ask children to sort and record all the different ways these shapes can be sorted.



Sort the toys into 2 groups.



Can you sort them in more than one way?



I can sort them into 3 groups.



Friday

Reflect: Journal 2

WAYS OF WORKING Independent thinking

IN FOCUS In this **Reflect** activity, children will reflect on their understanding of the concept of sorting by making their own collection of treasures using 5 objects from around the classroom or outside, and then sorting them in as many ways as they can. Allow children to swap one or two objects if they cannot find a way to sort them. Encourage children to describe how they have sorted their treasures and choose how to record this.

MASTERY CHECKPOINT **Children who have mastered this concept** can sort 5 objects into two groups and describe how they have sorted the objects.

Children who have not yet mastered this concept can describe one object in terms of its characteristics, for instance, its shape, size and colour but are not confident to sort a group of objects into two groups.

Children who have mastered this concept with greater depth can sort 5 objects into two or more groups and describe how they have sorted the objects. They know that there may be more than one way to sort a collection and that a collection can be sorted into more than two groups.

Reflect Unit 2: Sorting, Week 4: Sorting into 2 groups

Sort some toys into 2 groups.

I can sort my toys in more than 1 way.

Stretch: What can you find in the classroom to sort? How could you sort your collection into two groups? [Ask children to physically place the items in the boxes.] How did you decide to sort your collection? By colour? Shape? Size?

Deepen: Describe to your partner how you have sorted your collection. Is there more than one way to sort your collection? How do you know? Is it possible to sort your collection into three groups or even four? How many different groups can you make with your collection?

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Sort some toys into 2 groups.

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I can sort my toys in more than 1 way.



Strengthen: What can you find in the classroom to sort? How could you sort your collection into two groups? [Ask children to physically place the items in the boxes.] How did you decide to sort your collection? By colour? Shape? Size?

Deepen: Describe to your partner how you have sorted your collection. Is there more than one way to sort your collection? How do you know? Is it possible to sort your collection into three groups or even four? How many different groups can you make with your collection?