

Sort objects

Notes and guidance

In this small step, children learn that collections of objects can be sorted into sets based on attributes such as colour, size or shape. Sorting enables children to consider what is the same about all the objects in one set and how they differ from the objects in other sets.

Children need to understand that the same collection of objects can be sorted in different ways and should be encouraged to come up with their own criteria for sorting objects into sets.

Practical activities should be used to support the learning in this step and ideas are suggested in Key learning. The concept of sorting can also be reinforced during daily activities such as lining up. Children could be asked to line up based on certain criteria, for example whether they have a sister.

Things to look out for

- Children may think that a group of objects can only be sorted in one way.
- Children may not focus on a single similarity, but instead on different attributes, leading to incorrect placement of objects in some sets.

Key questions

- What is the same about all the objects in the set?
- What is different about the sets?
- Can you find an object that belongs to this set?
- Can you find an object that does not belong to this set? Why does it not belong?
- Can you think of a different way to sort the objects?

Possible sentence stems

- This set of objects has been sorted by _____
- I could also sort the objects by _____
- _____ does belong in the set because ...
- _____ does not belong in the set because ...

National Curriculum links

- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least

Sort objects

Key learning



Find some seeds and leaves to represent Autumn.

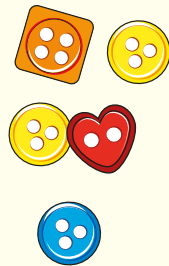


Ask children to sort the objects in three different ways and then compare their answers with a partner.



Read *The Button Box* by M Reid.

Give children a selection of buttons and ask them to sort the buttons in as many different ways as they can.

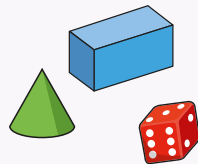


Encourage them to think about size, shape, colour and number of holes.

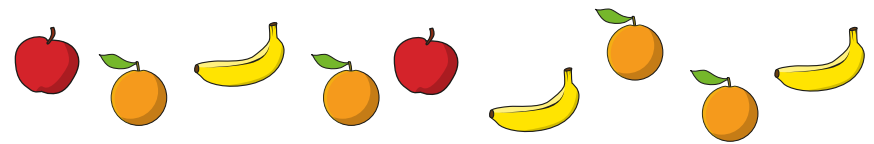


Give children a selection of 3-D shapes.

Ask children to sort the objects into two groups and then challenge a partner to say how the objects have been sorted.

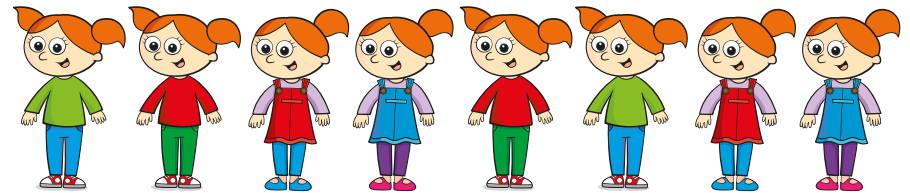


- Sort the fruit into groups.



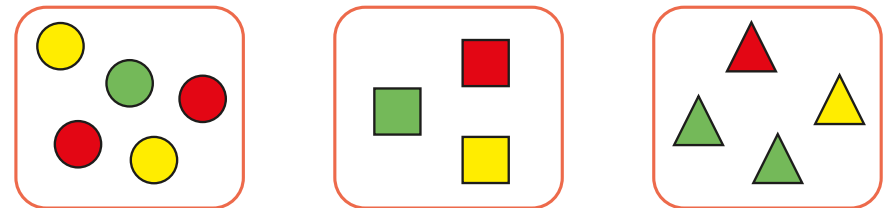
Explain how you have sorted them.

- Look at the pictures of Alex.



How many different ways can you find to sort them?

- How have the shapes been sorted?



How else could you sort them?

Sort objects

Reasoning and problem solving



Begin with a large pile of objects such as buttons.

Tell the children you have a sorting rule, and they need to work out what it is.

One at a time, place an object into your set that fits the rule.

What do children notice first?

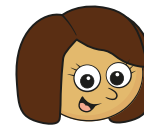
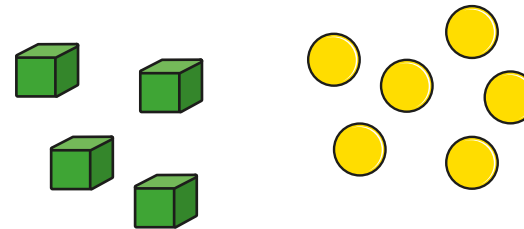
How long does it take them to work out the sorting rule?

When they think they know your sorting rule, ask the children to choose an object that belongs in your set. Tell them if they are correct or incorrect.

Challenge the children to create their own sorting rule for you to work out.

Answers will vary depending on the rule chosen.

Kim and Mo are trying to find the sorting rule.



Kim

The objects are sorted into cubes and counters.



Mo

The objects are sorted into green and yellow.

Who is correct? How do you know?

Kim and Mo could both be correct, as all the cubes are green and all the counters are yellow.