

Topic: Patterns and algebra

Classifying sorts

Lesson concepts



Patterns — Classification



Functions — Rules

Today students will:

- ▶ sort objects based on set criteria
- ▶ identify a 'rule' for the sort.

Resources

Digital

Learning object — Ding dong bell

Sheet

Sheet — Sorting rules (from previous lesson)

Find and prepare

a bag for collecting objects

card

small bag (resealable plastic or purse) containing a collection of mixed coins

sorting bowls or paper plates

Key terms

sort, describe, compare, similar, different, same, group, rule, colour, size, shape, use, feel

For definitions and explanations of terms, please see the [Glossary](#).

Lesson

Introduce the lesson

Say to students

- ‘ In today’s lesson, you will be comparing objects and deciding which groups you will put them in based on a sorting rule. You will also be describing rules for sorting objects. First, let’s practise using some clues to sort and eliminate characters in a learning object. ’

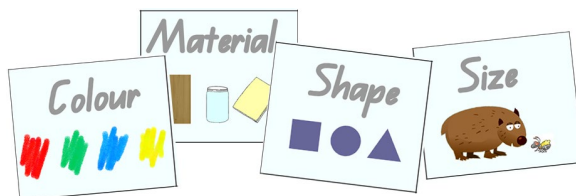
View and discuss the **Learning object — Ding dong bell** with students.

Read each clue to students and explain that:

- to identify the correct picture they must listen to clues
- each clue gives information about one characteristic of the pictures
- these clues will help the sorting
- the pictures that do not have the characteristic are flipped down
- eventually there will be one picture left.



Remind students that when they sort collections they need to compare the objects and decide which groups they will put them in. They may compare features such as colour, shape, size, name and feel. Refer to the **Sheet — [Sorting rules](#)** if necessary.



Sort collections according to set criteria

Explain to students they will be given a bag and a sorting rule such as colour, size, shape, use or material.

Say to students

- ‘ Please find a collection of (red/round/plastic) items. (Or the sorting criteria of your choice.) ’

With adult support ask students to:

- place small objects from around the house (for example: toys, pegs, blocks) that would belong to that group into their bag
- display their collection
- make a label for the collection using a piece of card.

Focus questions

- Q: *What are you looking for?*
- Q: *Would this belong in your group? Why?*
- Q: *How could you look at this differently? Would it still belong in the group? Why?*
- Q: *How are these two objects the same?*

Repeat activity using a different rule.

Discuss the displays and any new 'sorting' vocabulary that students use.

Focus questions

- Q: *Is this a good name for this group? Why?*
- Q: *What could be another name for this group?*
- Q: *How do these objects match the sorting rule?*
- Q: *Is there another group you could put this object in? Explain?*

Identify the rule for the sort

Give students a small bag of assorted coins.

Empty the coins from the bag onto the floor for discussion.

Explain that the coins need to be sorted.

Discuss ideas for sorting for the coins (such as by size, colour, number on the coin, shape and picture on the coin).



Focus questions

- Q: *How could you sort these coins?*
- Q: *What is another way you could sort these coins?*
- Q: *How would you describe this sort?*

Provide students with 'sorting bowls' or paper plates.

Select a coin feature (such as colour).

Ask students to:

- sort the collection according to that feature
- select and combine other features for a sort (such as colour **and** size)
- sort the collection according to combined features
- identify or name their sorting rule.

Generate other sorts of the same collection

Explain that students will create their 'best sort' with the collection of coins.

Ask students to:

- choose a rule to sort the collection
- sort the collection based on the rule
- write a label for their sort on a piece of card.

Focus questions

Q: *What is the rule for your sort?*

Q: *What is another way you could have sorted these objects?*

Q: *Where would you put this coin? Why?*

Q: *What problems did you have with the sort?*

Q: *How did you solve those problems?*