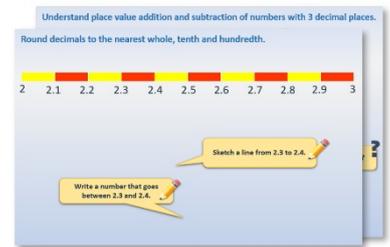


# Week 11, Day 5

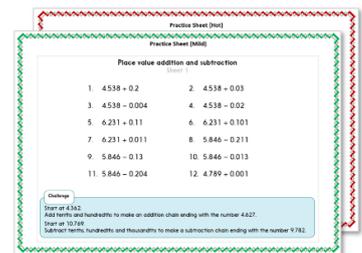
## Sorting 3-D shapes

Each day covers one maths topic. It should take you about 1 hour or just a little more.

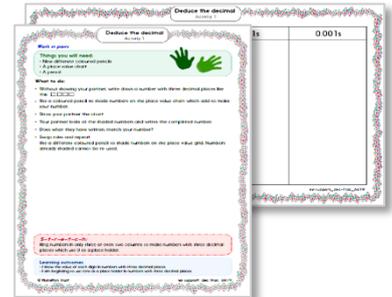
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.

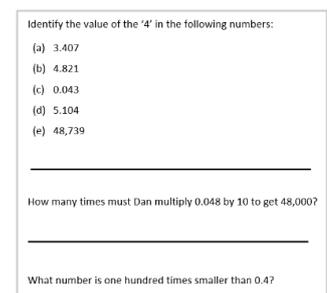


3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation...**

5. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



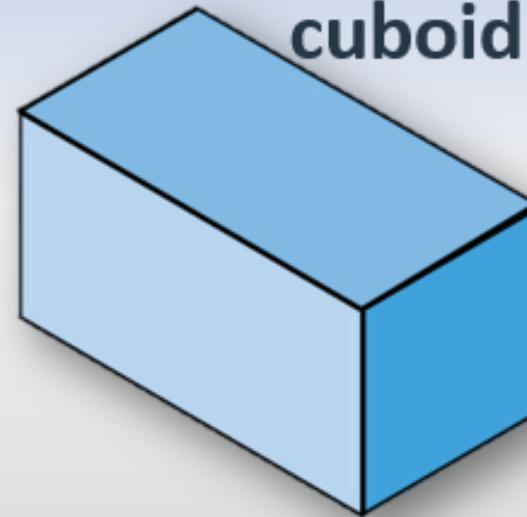
## Learning Reminders

Name common 3-D shapes.

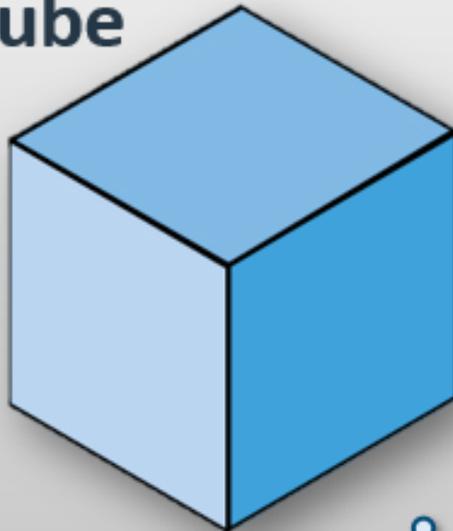
What is the **same** about these two shapes?  
What is **different**?



**cuboid**



**cube**

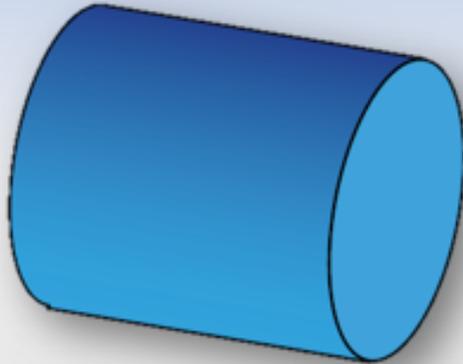


Can you see anything in the room that is a cube or a cuboid shape?



## Learning Reminders

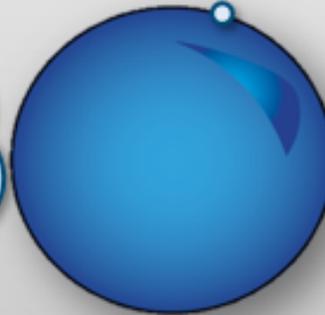
Name common 3-D shapes.



Can you see anything in the room that is a **sphere** shape?



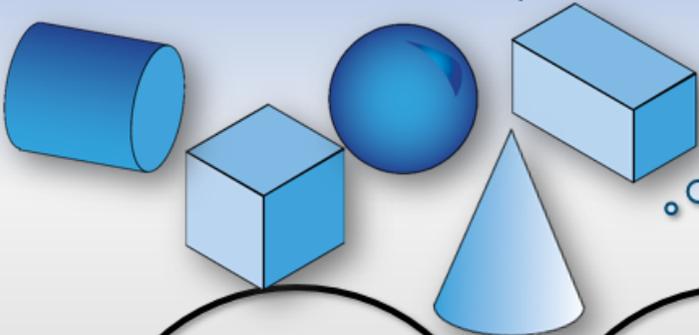
Can you see anything that is a **cylinder** shape?



Can you see anything that is a **cone** shape?

# Learning Reminders

Name, describe and sort common 3-D shapes.



We are going to sort these shapes!

Flat faces only

Curved faces

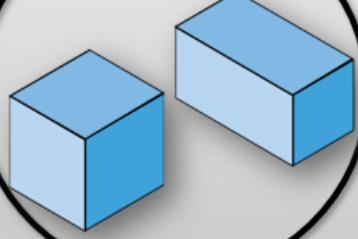
Name, describe and sort common 3-D shapes.

Which set of shapes will **roll** better?

Which set of shapes will **slide** better?

Flat faces only

Curved faces



## Practice Sheet Mild

### Sorting objects

Sort the shapes of the everyday objects on page 2.

**Cylinder**

**Sphere**

**Cuboid**

#### Challenge

Can you think of one more object for each group? Draw it in the correct section.

## Practice Sheet Hot

### Sorting objects

Sort the shapes of the everyday objects on page 2.

**Cylinder**

**Sphere**

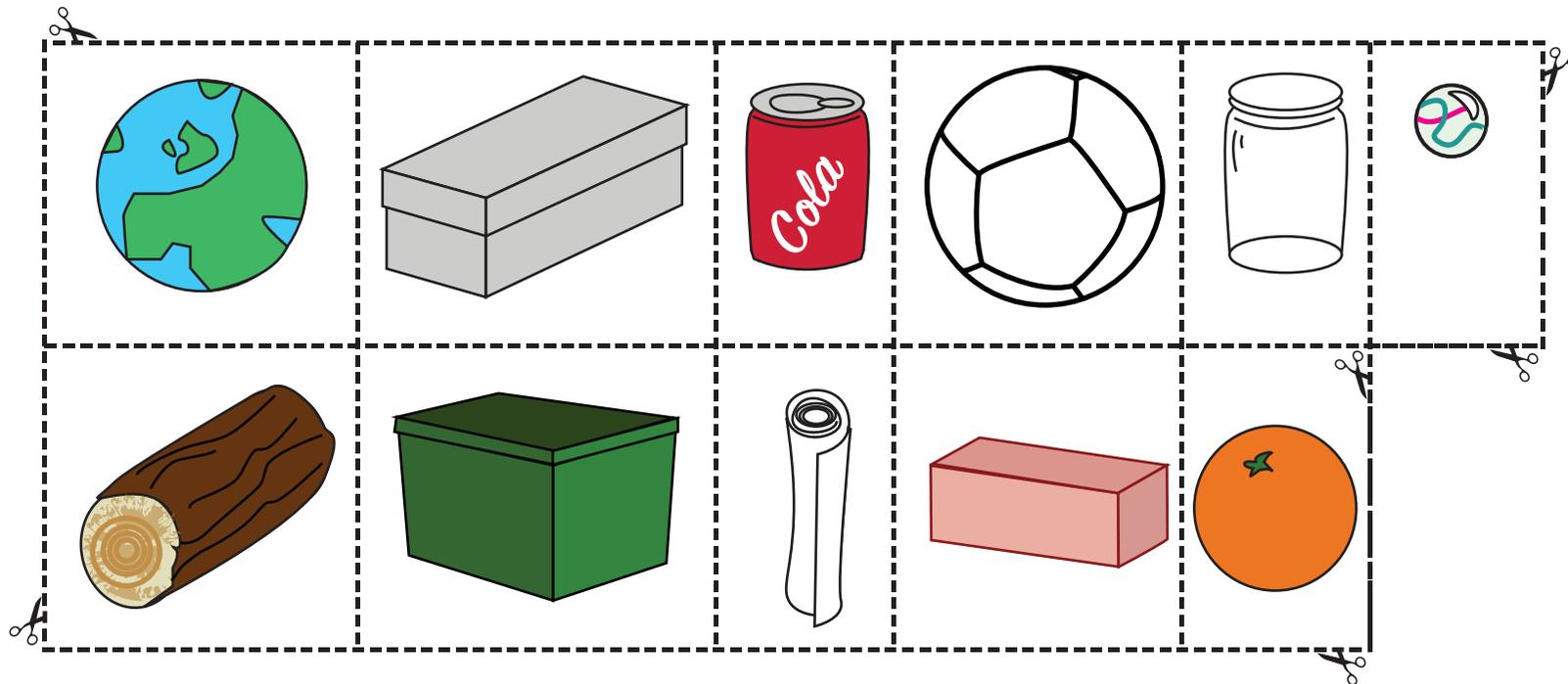
**Cuboid**

#### Challenge

What different shapes of packaging can you see in your home?

# Practice Sheet Mild and Hot continued

## Sorting objects



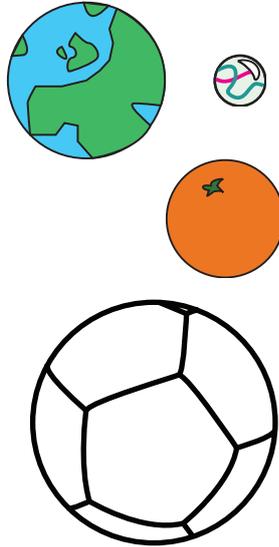
# Practice Sheet Answers

## Practice Sheet (Mild) and (Hot)

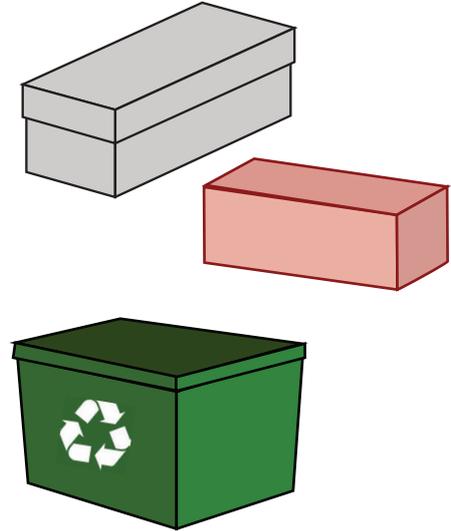
### Cylinder



### Sphere



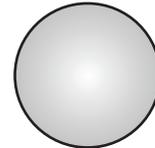
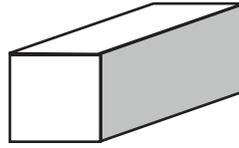
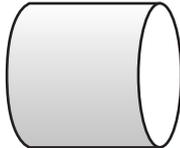
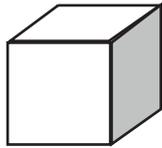
### Cuboid



## A Bit Stuck? Shape hunter

### Things you will need:

- A camera/phone



### What to do:

- Choose one of these shapes.
- Try to find as many objects that shape as you can.
- If you can, take photographs of them.



- Try to find as many different-looking examples of that shape as you can.
- Describe them to an adult.
- Now choose another shape and repeat.

## Animal moving day

1. A family of small toy animals are moving today from one part of the wildlife sanctuary to another. Their keeper needs to make a crate for their short journey. It needs to be big enough so that they don't feel squashed, but not so big that they slide about, as that makes them frightened. It also needs to be cube shaped as that is easy to make.



2. Your task is to make a crate from paper for the toy animals. Use scrap paper to experiment and discover how best to make the cube crate for the family of cats.
3. Try drawing the base and making the flaps to fold up to form the sides and the top of the crate. (Remember your crate must have a top, or else the animals might hop out!)
4. Check that your small toy animals fit in the crate snugly.

What do you notice about the shapes you have cut out to make your cube crate?

Make some more cuboid crates for other groups of toy animals.

# Problem solving and reasoning questions

Mystery shapes.

- I have six square faces.
  - If I am one way up, I slide. If you turn me over, I roll.
  - I am used in football!
  - I can only slide. Not all my faces are the same but they are all rectangles.
- 

True or false

- No shape has only curved faces.
  - Two shapes we know have six rectangle faces.
  - No shape can both roll and slide.
- 

Name three shapes which you could use, dipping one face in paint, to print a square.

*Fold here to hide answers:*

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## Answers

Mystery shapes.

- I have six square faces **Cube.**
  - If I am one way up, I slide. If you turn me over, I roll. **Cylinder.**
  - I am used in football! **Sphere.**
  - I can only slide. Not all my faces are the same but they are all rectangles. **Cuboid.**
- 

True or false

- No shape has only curved faces **False – a sphere does.**
  - Two shapes we know have six rectangle faces **True – a cube and cuboid.**
  - No shape can both roll and slide **False – a cylinder can.**
- 

Name three shapes which you could use, dipping one face in paint, to print a square. **Cube, cuboid, square based pyramid.**