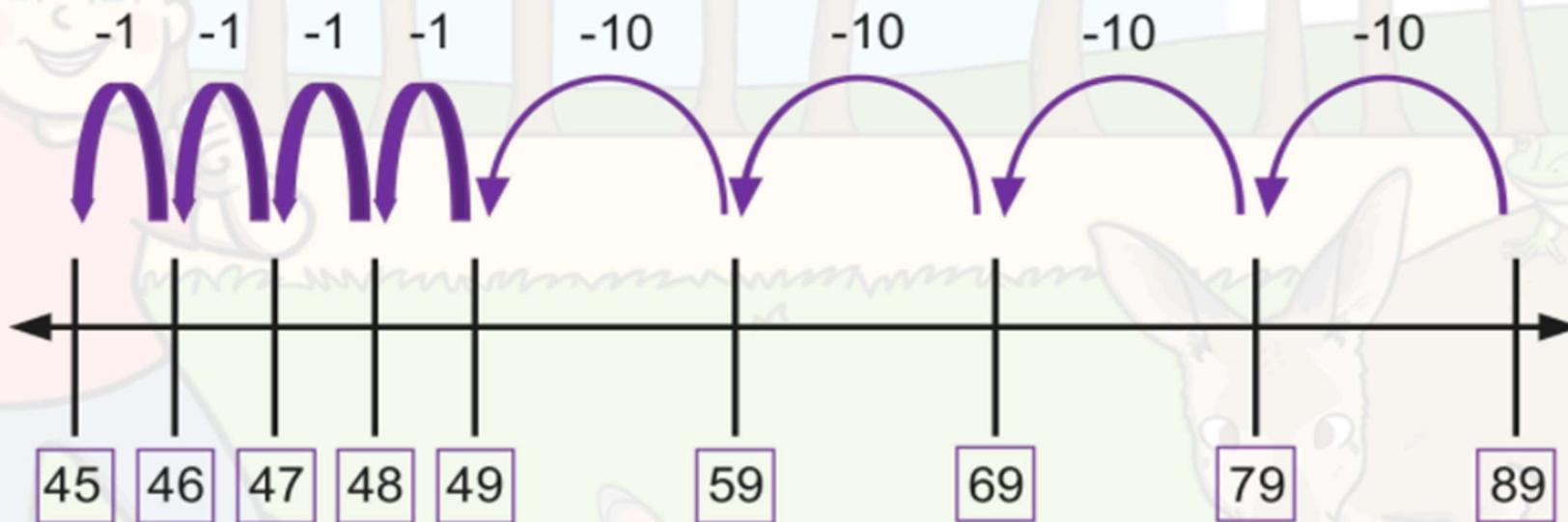


Solve the following question using the jump strategy.

$$89 - 44 =$$

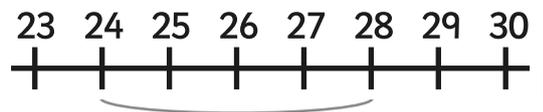


$$89 - 44 = 45$$

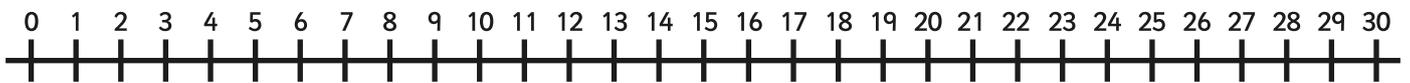
# Subtraction from 30 with a Number line

Example:

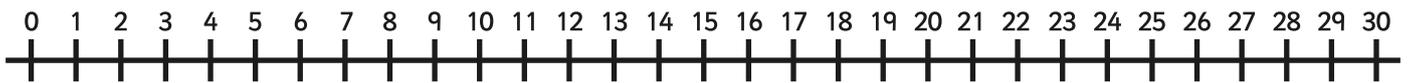
$$\underline{28} - 4 = \textcircled{24}$$



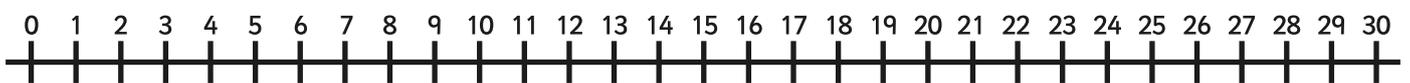
$$30 - 4 =$$



$$20 - 4 =$$



$$25 - 4 =$$



$$15 - 4 =$$



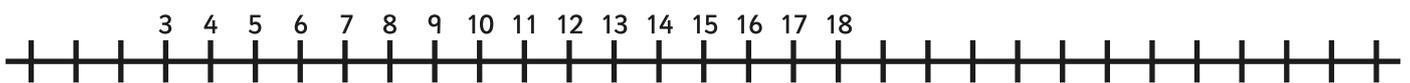
$$29 - 1 =$$



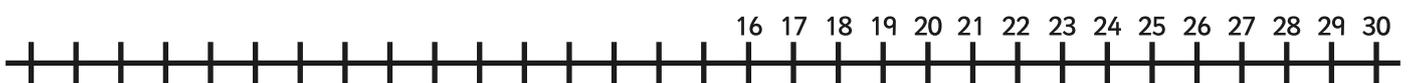
$$23 - 3 =$$



$$27 - 5 =$$



$$20 - 11 =$$



A fraction is a part of a whole, or a set.

## Fractions

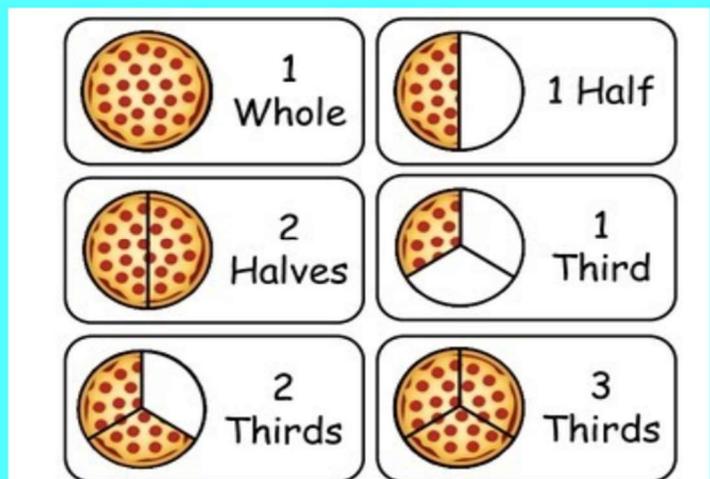
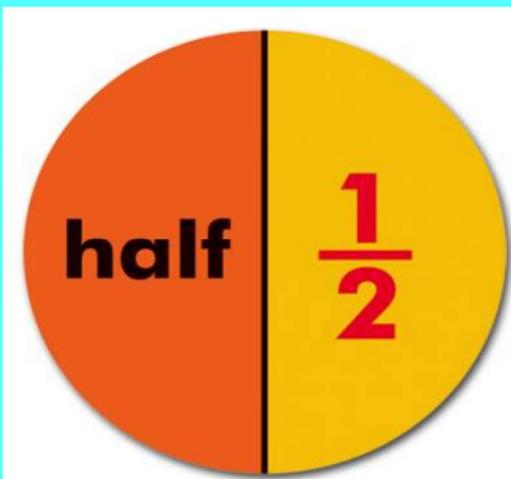
There are two numbers in a fraction:

$$\frac{1}{2}$$

The top number is called the numerator. This number tells you how many of the equal parts of the 'thing' you have.

The bottom number is called the denominator. What this basically means, is how many equal parts the 'thing' is split in to. So here, there are two equal parts.

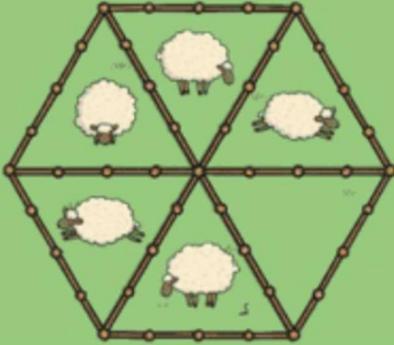
Fractions are shown by dividing an object into equal parts.



# Farmyard Fractions



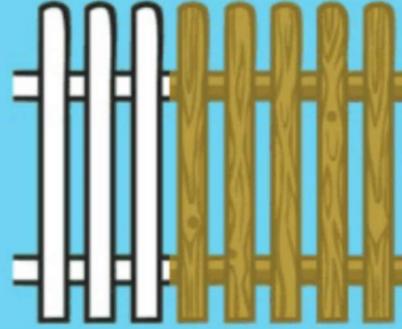
What fraction of the fields have sheep in?



$$\frac{5}{6}$$

The land is divided into six equal sized fields and five of them have sheep in.

What fraction of the fence still needs to be painted?



$$\frac{3}{8}$$

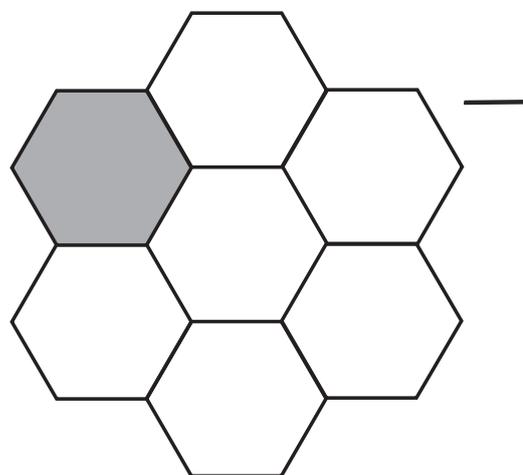
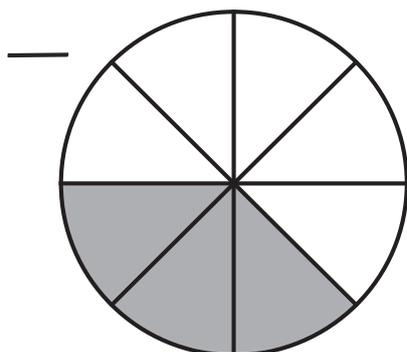
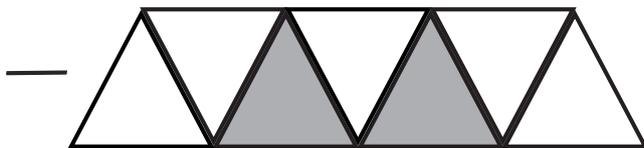
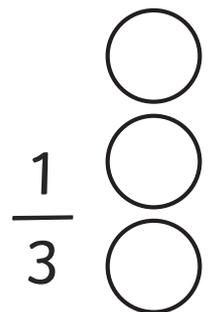
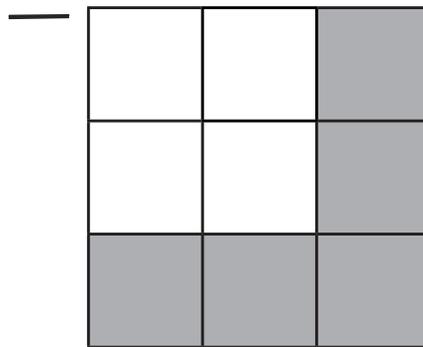
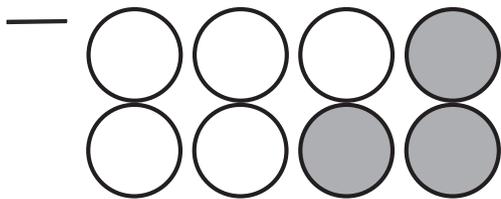
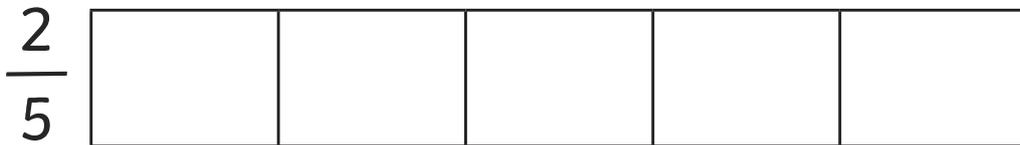
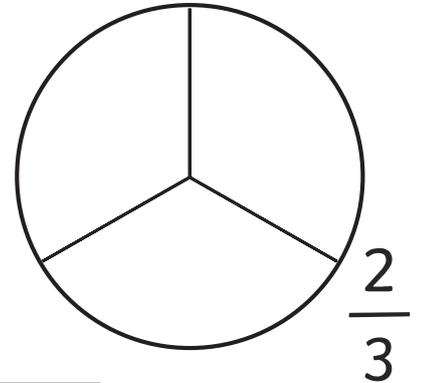
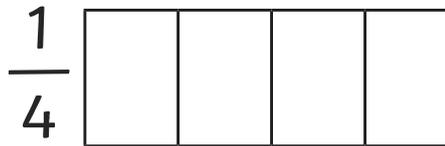
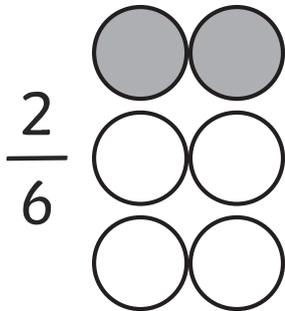
There are eight equal pieces so the denominator is 8. Five out of the eight pieces are painted, which means three still need to be painted, so the numerator is three.

An explanation of fractions is at:

<https://www.youtube.com/watch?v=CA9XLJpQp3c>

# Colour and Label Fractions

Colour and label correctly:  
The first has been done for you.





**k c q ck x\* ch**

kite car queen sock fox school

**Focus Words**

park	knock	scratch	sixteen	music
joke	clear	squash	expand	cruel
track	crowd	sixth	explain	plastic
snack	kind	sixty	relax	electric

\* We can use **x** for the two sounds as in **fox**.

1 Turn to page 79 to segment the Focus Words.

2 Finish the words that match the clues.

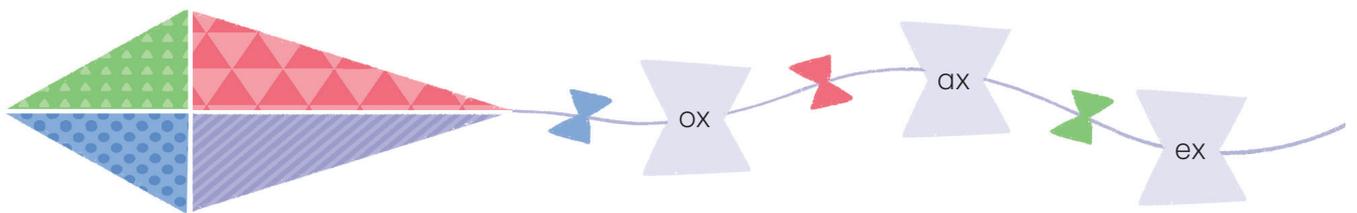
caring	k_____	not dirty	cl_____	break	cr_____
baby cat	k_____	in the sky	cl_____	unkind	cr_____
boils water	k_____	see-through	cl_____	edge of bread	cr_____
fly it in the sky	k_____	tells the time	cl_____	a lot of people	cr_____

3 Write words beginning with **scr** or **squ** that rhyme.

tape _____	trap _____	wash _____
beak _____	care _____	patch _____
shrub _____	been _____	sneeze _____

4 Finish the words with the letters from the kite. Match the words to the clues.

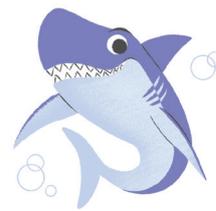
b____ing	•	• more	w____	•	• cab
____tra	•	• bendy	t____i	•	• in the air
fl____ible	•	• a sport	____ygen	•	• costs a lot
rel____	•	• the most	____pensive	•	• from a candle
toolb____	•	• take it easy	shoeb____	•	• piece of writing
m____imum	•	• place to keep tools	t____t	•	• place to keep shoes



5 Finish the sentences.

Twelve divided by two is \_\_\_\_\_. Double thirty is \_\_\_\_\_.  
Double eight is \_\_\_\_\_. June is the \_\_\_\_\_ month.

6 Write **ck**, **k** or **c** to finish the words.



lu\_\_\_\_ for\_\_\_\_ ki\_\_\_\_ cli\_\_\_\_ shar\_\_\_\_  
 kno\_\_\_\_ topi\_\_\_\_ ne\_\_\_\_ tra\_\_\_\_ garli\_\_\_\_  
 wee\_\_\_\_ wea\_\_\_\_ publi\_\_\_\_ traffi\_\_\_\_ fabri\_\_\_\_

7 Write Focus Words that match the clues.

small meal \_\_\_\_\_ makes people laugh \_\_\_\_\_  
 place to play \_\_\_\_\_ powered by electricity \_\_\_\_\_  
 man-made material \_\_\_\_\_ made with instruments \_\_\_\_\_

Prefix ex

8 Write the words from the box to match the meanings.

exclude expand explain exit export exclaim

The prefix **ex** means out.

the way out \_\_\_\_\_ stretch out \_\_\_\_\_  
 leave out \_\_\_\_\_ to make an idea clear \_\_\_\_\_  
 to shout out \_\_\_\_\_ send out of a country for sale \_\_\_\_\_

9 Check the definitions of the words in a dictionary. Write sentences containing each word.

exhale \_\_\_\_\_  
 \_\_\_\_\_  
 exterior \_\_\_\_\_  
 \_\_\_\_\_

Challenge

Write words that match the Word Ladder clues. On each step of the ladder, change, add or remove a grapheme.

cake		peak		speak
	not real		place to play	
	wobble		not light	
	create		sea creature	
	cook in an oven		did shake	
	has two wheels		make food	
	enjoy		goes in a bottle	
hike		corn		crowd



# Terrible lizards

The word 'dinosaur' comes from a Latin word meaning 'terrible lizard'. Like lizards, dinosaurs were reptiles. They lived over 65 million years ago during the Mesozoic Era, the 'age of the reptiles'.

Reptiles today are related to dinosaurs in that they both have scaly skin and lay eggs. However, it is thought that dinosaurs may be more closely related to birds.

Dinosaurs differed widely in areas such as size, weight, number of legs (two or four), speed of movement and what they ate (whether they were herbivores, carnivores or omnivores).

There are two main groups of dinosaurs:

(a) Saurischians or 'lizard-hipped' dinosaurs.

This group included:

- (i) Theropods – bipedal (walked on two feet); small forelimbs, sharp teeth and claws; carnivores. Examples were Tyrannosaurus and Allosaurus.
- (ii) Sauropods – huge dinosaurs with long, heavy necks and tails; mostly quadrupedal (walked on four legs); herbivores. Examples were Apatosaurus and Diplodocus.

(b) Ornithischians or 'bird-hipped' dinosaurs.

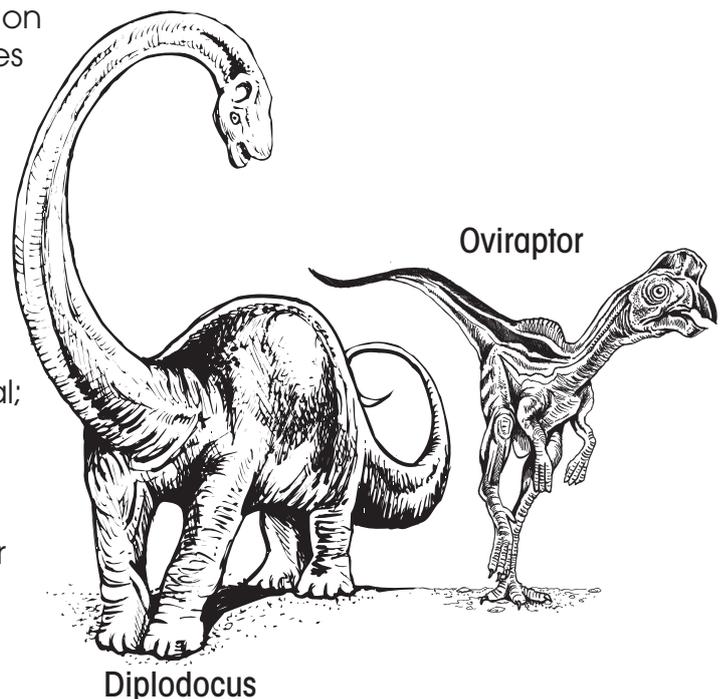
This group included:

- (i) Plated dinosaurs – bony plates or spikes on their back or tail; small jaw; quadrupedal; herbivores. An example was Stegosaurus.
- (ii) Armoured dinosaurs – bony plates and spikes all over their body; usually a club-like tail; quadrupedal; herbivores. An example was Ankylosaurus.

- (iii) Bird-footed dinosaurs – peg-like teeth; bipedal; omnivores or herbivores. Examples were Hadrosaurus and Oviraptor.
- (iv) Horned dinosaurs – horns, beaks and large bony collars; quadrupedal; herbivores. Examples were Triceratops and Styraeosaurus.

Fossilised trackways show that many herbivorous dinosaurs travelled in herds, feeding and nesting together. Travelling in packs or herds offered protection against the carnivores. Some carnivores also appeared to hunt in packs to enable them to attack much larger prey.

Scientists are still not sure why dinosaurs became extinct. The most popular theory is that a meteorite hit the Earth, covering it in a thick cloud of dust. This blocked the sun, and caused huge changes to the environment to which the dinosaurs were unable to adjust.



Use the report on page 43 to complete the page.

## 1. Title

(a) The title of this scientific report is \_\_\_\_\_

(b) Is it an appropriate title? \_\_\_\_\_ Explain why you think this.

\_\_\_\_\_  
\_\_\_\_\_

## 2. Classification

List three facts from this section of the report.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 3. Description

(a) What do these technical words mean?

(i) herbivore \_\_\_\_\_

(iii) carnivore \_\_\_\_\_

(iii) omnivore \_\_\_\_\_

(iv) Saurischian \_\_\_\_\_

(v) Ornithischian \_\_\_\_\_

(b) Replace one word with 'reptiles' and another with a pronoun such as 'he', 'she' or 'they' to change this sentence from the first to the third person.

**We are related to dinosaurs in that we both have scaly skin and lay eggs.**

\_\_\_\_\_



## 4. Conclusion

What is the main idea of the concluding paragraph?

\_\_\_\_\_

# Is it fantastic to be elastic?



- 1 What do you think the cuddly toy is thinking and feeling? Share your thoughts with a partner and then the class.

## Vocabulary

elastic

elasticity

property

bounce

manufacture

## Materials needed

### ACTIVITY QUESTION 8

Each group (4–5 students) will need:

- 3 balls from the following:
  - hand ball or another rubber ball
  - ping pong ball
  - foam ball
  - tennis ball
  - hockey ball
  - golf ball
  - cricket ball
- a metre ruler
- a hard surface (e.g. wooden floor)
- a device for recording in slow motion



2 Watch the video of the man slacklining.

3 Complete the See, Think, Wonder thinking routine.



**See**

What did you **see** happening in the video?



**Think**

What properties do you **think** the slackline has?



**Wonder**

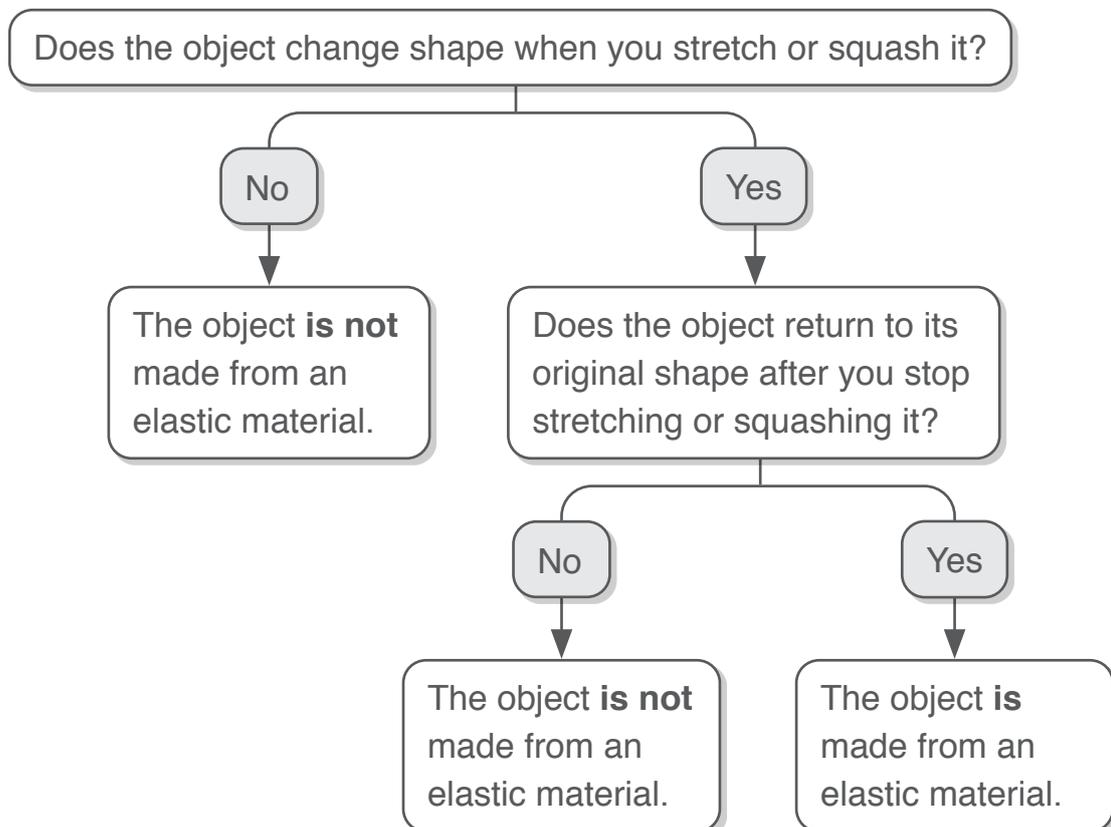
What do you **wonder** about slacklining?

Some objects are made from elastic (stretchy) materials. If an object returns to its original shape after you stretch or squash it, it is made from an elastic material. The slackline in the video was made from an elastic material.

- 4 Use the flowchart below to work out which of these objects are made from an elastic material and circle them.



### Flowchart



It is important that people who design and manufacture (make) sports balls understand the properties of different materials. This is so they can choose the best materials to make balls for each sport.

- 5 Discuss these questions with a partner and then the class.



What if...

...tennis balls were made from glass?

...bowling balls were made from foam?

...basketballs were made from wood?

- 6 Watch the video of the tennis ball.

- 7 Do you think the tennis ball is made from an elastic material?

Use what you saw in the video to explain what makes you say that.

**Hint!**

Look back at page 4 to help you!

Elastic materials are often used to make sports balls because this helps the ball bounce.



These tennis balls change shape when they hit the ground. They then quickly return to their shape because they are made from an elastic material. When this happens, the ball pushes back on the ground and bounces up into the air.

- 8 You are going to conduct an experiment to find out which ball has the highest elasticity.

### Aim

I am going to find out which ball has the highest elasticity (the one that bounces the highest).

### Materials (what I need)

See the list on page 2.

### Hypothesis

I predict \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Procedure

- Step 1:** Put the metre ruler against a wall.
- Step 2:** One person in your group will need to record your experiment in slow-motion using a digital device.
- Step 3:** Drop all the balls from a height of 1 metre at the same time.
- Step 4:** Repeat steps 2 and 3 twice more.
- Step 5:** Watch the slow-motion videos of your experiment and record your results on the following page.



**Results**

For each drop, write the ball that bounced highest in first place. Write the ball that bounced the second highest in second place and the ball that bounced the lowest in third place.

**Drop 1**

Ball: \_\_\_\_\_



Ball: \_\_\_\_\_



Ball: \_\_\_\_\_

**Drop 2**

Ball: \_\_\_\_\_



Ball: \_\_\_\_\_



Ball: \_\_\_\_\_

**Drop 3**

Ball: \_\_\_\_\_

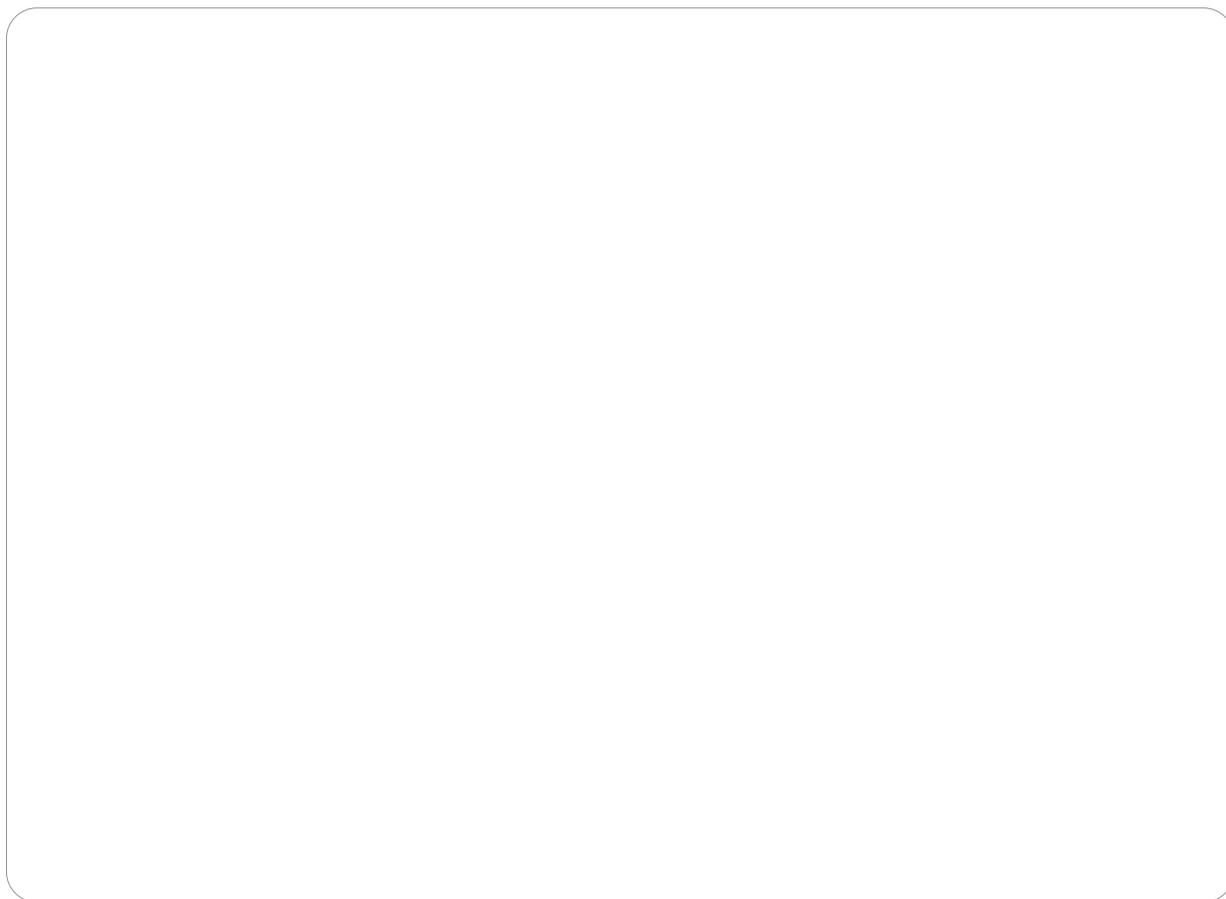


Ball: \_\_\_\_\_



Ball: \_\_\_\_\_

Draw and label a diagram of what you did.



### Conclusion

What did you find out? Was your hypothesis correct?

---

---

### Evaluate

What worked well about your experiment?

---

---

Why was it important to drop all the balls from the same height and on the same surface?

---

---

---

9

Bungee jumping is an extreme sport. Do some guided research to find out more about this sport.

Why is the bungee cord such an important piece of equipment? Use the Sentence, Phrase, Word thinking routine to record your thoughts.



Sentence

Phrase

Word

**10**

Rubber is a very elastic material and can stretched to three times its size. It can be combined with other materials to make waistbands for clothes.

Read the pig's opinion about waistbands. Decide whether each of the groups below would agree or disagree with his view and explain why.



**I think all waistbands should stretch to three times their size.**

**Who:** Manufacturers (the people who make clothes)

Agree or disagree? \_\_\_\_\_

Why? \_\_\_\_\_

---

---

---

**Who:** Consumers (the people who buy clothes)

Agree or disagree? \_\_\_\_\_

Why? \_\_\_\_\_

---

---

---

**Who:** The Earth

Agree or disagree? \_\_\_\_\_

Why? \_\_\_\_\_

---

---

---