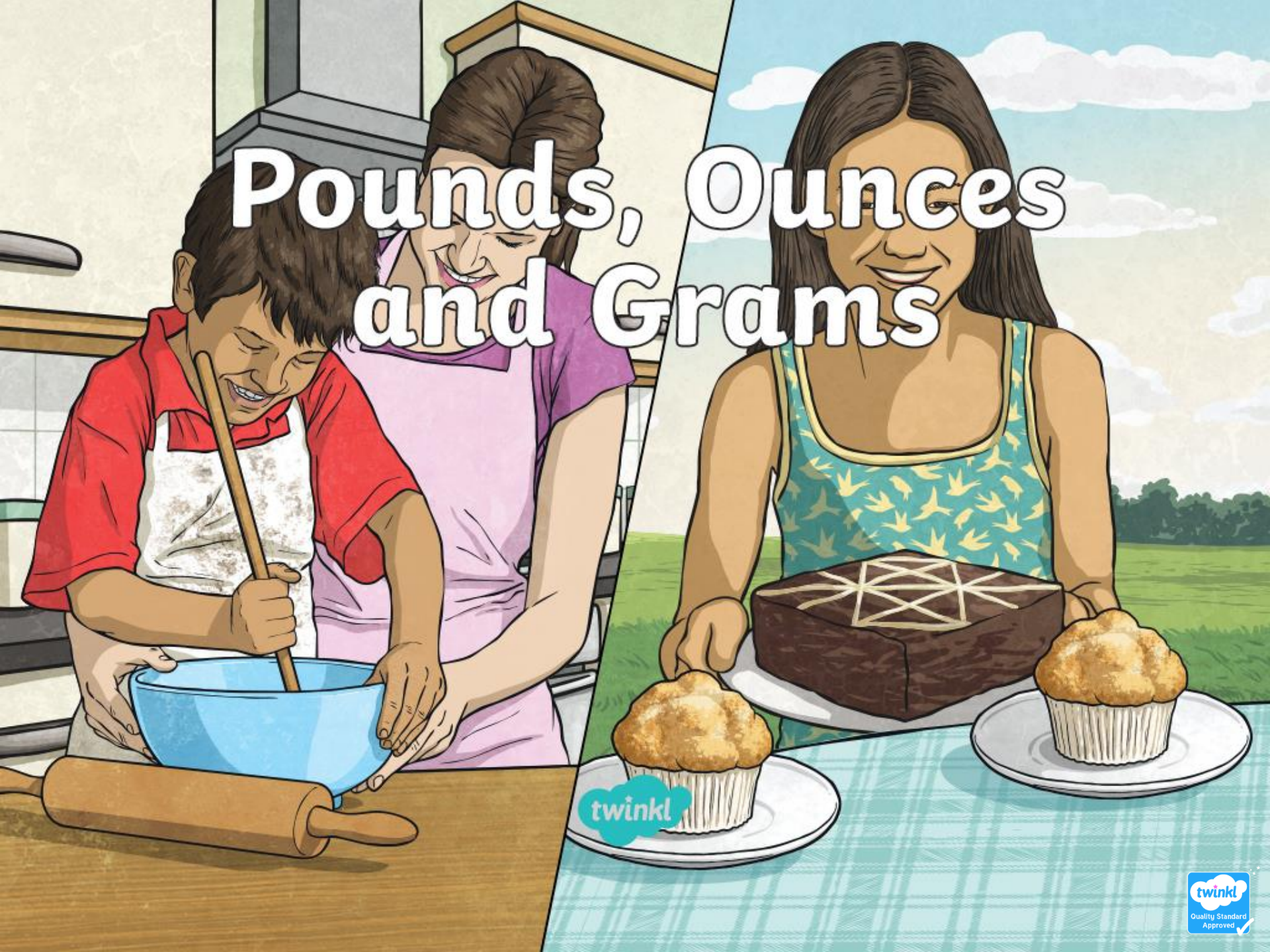


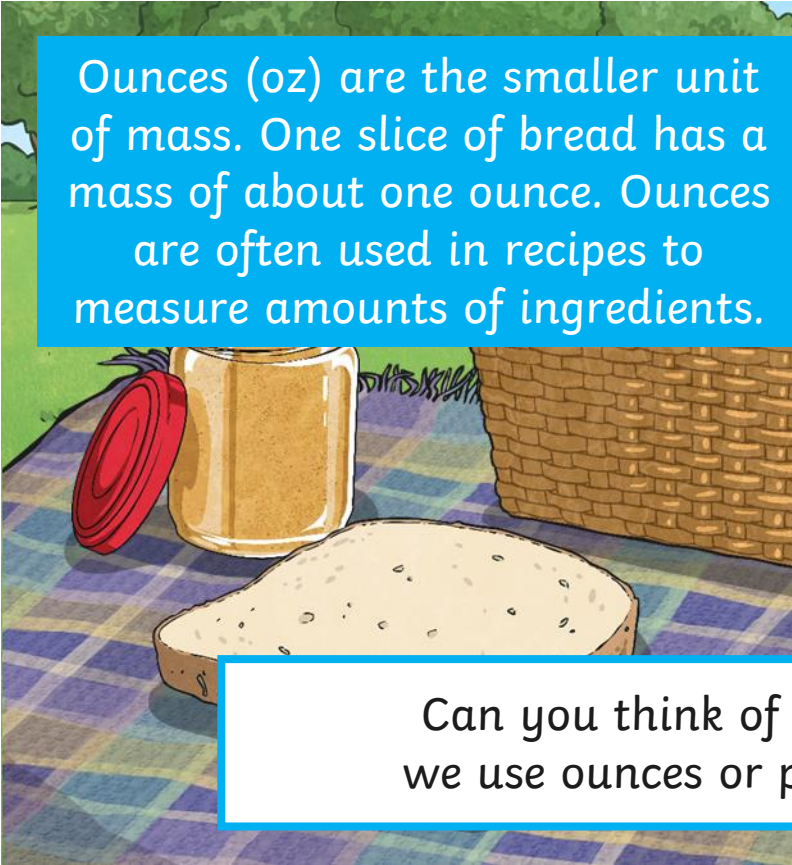
# Pounds, Ounces and Grams



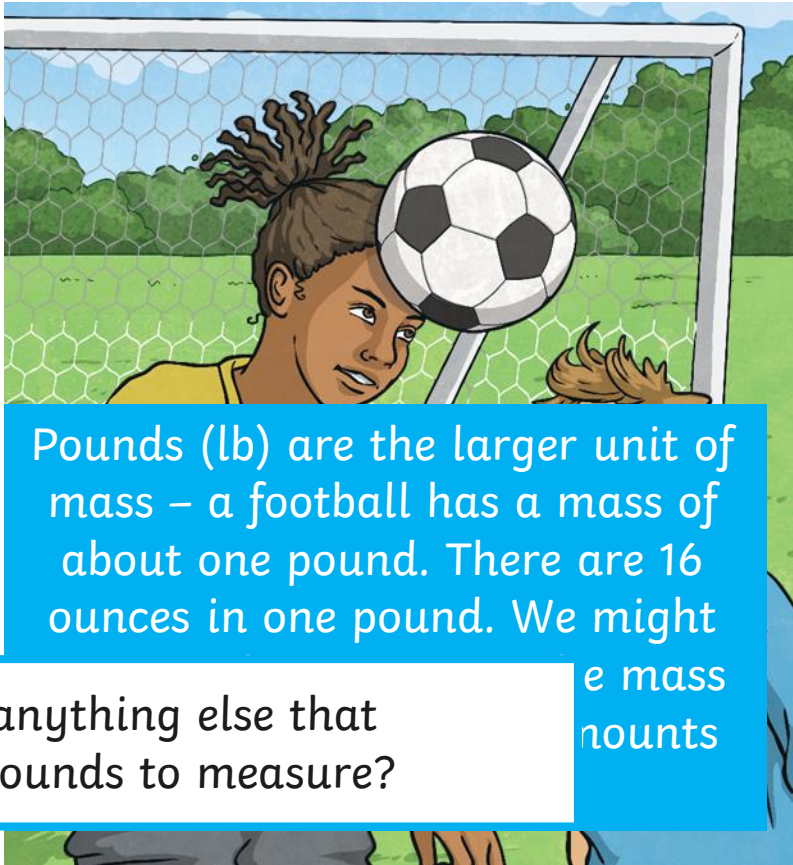


# Imperial Units of Mass

The imperial system of measurement uses ounces and pounds to measure mass.



Ounces (oz) are the smaller unit of mass. One slice of bread has a mass of about one ounce. Ounces are often used in recipes to measure amounts of ingredients.



Pounds (lb) are the larger unit of mass – a football has a mass of about one pound. There are 16 ounces in one pound. We might

Can you think of anything else that we use ounces or pounds to measure?

e mass  
nouns

# Ounces and Grams



$$1\text{oz} \approx 28\text{g}$$

How could you work out how many grams are approximately equal to...

Ounces	Grams
2oz	56g
5oz	140g
6oz	168g

double

$\times 5$

$\times 10$  and find half

add

another method?



# Ounces and Grams



$$1\text{oz} \approx 28\text{g}$$

Can you think  
of another way to  
work this out?

Ounces	Grams	
$\frac{1}{2}$ oz	<b>14g</b>	$28\text{g} \times 2 = 56\text{g}$
$2\frac{1}{2}$ oz	<b>70g</b>	$28\text{g} \div 2 = 14\text{g}$ $56\text{g} + 14\text{g} = 70\text{g}$

double

halve

$\div 2$

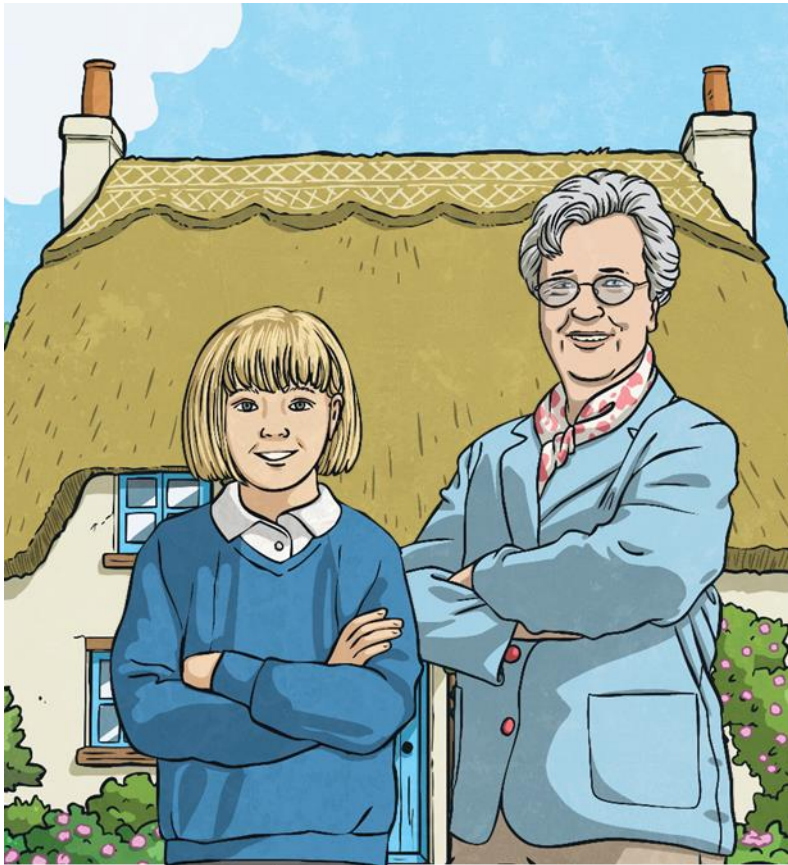
add

another method?

# Recipes



Lucy's grandma has given her an old book of cake recipes. The ingredients have been written in imperial measurements.



Lucy only has a set of scales that measure in metric units!

She wants to convert her grandma's recipes from ounces to grams so that she can make them herself.





# Recipes



1oz  $\approx$  28g

The first page in Lucy's grandma's book has a list of ingredients for making shortbread.

Ingredients (oz)  
makes 12

8oz butter  
6oz sugar  
10oz plain flour

Shortbread  
Ingredients (g)  
makes 12

224g butter  
168g sugar  
280g plain flour

Convert the measurements given in ounces into grams:

# Recipes



1oz  $\approx$  28g

Lucy found a recipe for chocolate cake. She wants to make **24** cakes so she can bring them in to share with her class.

*Cake  
Ingredients (g)  
makes 24*

*168g caster sugar  
252g butter  
616g plain flour*

*Ingredients (oz)  
makes 12*

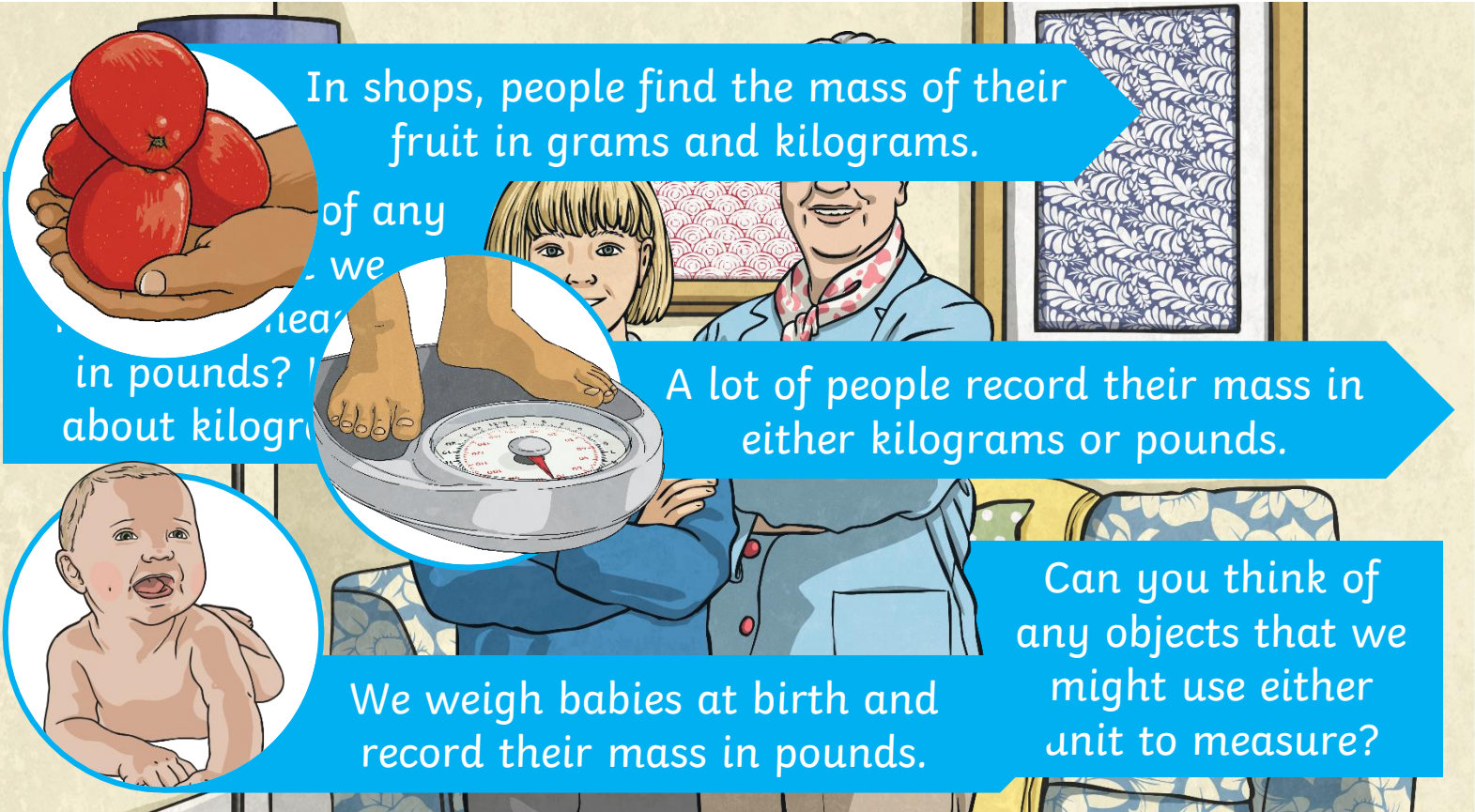
*3oz caster sugar  
4½oz butter  
11oz plain flour*

Write a list to show the ingredients in grams.



# Pounds, Grams and Kilograms

We usually measure certain objects in either pounds or kilograms.





# Pounds, Grams and Kilograms



$$1\text{lb} \approx 450\text{g}$$

One of Lucy's grandma's recipes lists a pound of flour as one of the ingredients. Lucy needs to work out how much this is in grams so that she can measure the correct

We could also write these measurements in kilograms.

1lb	2lb	5lb	10lb	15lb
0.45kg	0.9kg	2.25kg	4.5kg	6.75kg

# Pounds, Grams and Kilograms



$$1\text{kg} \approx 2.2\text{lb}$$

?

How could you work out what 6.6lb would be in kilograms?

Lucy's baby sister had a mass of 6kg when she was three months old. Lucy's grandma

There are three lots of 2.2 in 6.6, so 3kg = 6.6lb.

Use these measurements from kilograms to help Lucy explain this to her grandma.

1kg	2kg	5kg	10kg
2.2lb	4.4lb	11lb	22lb



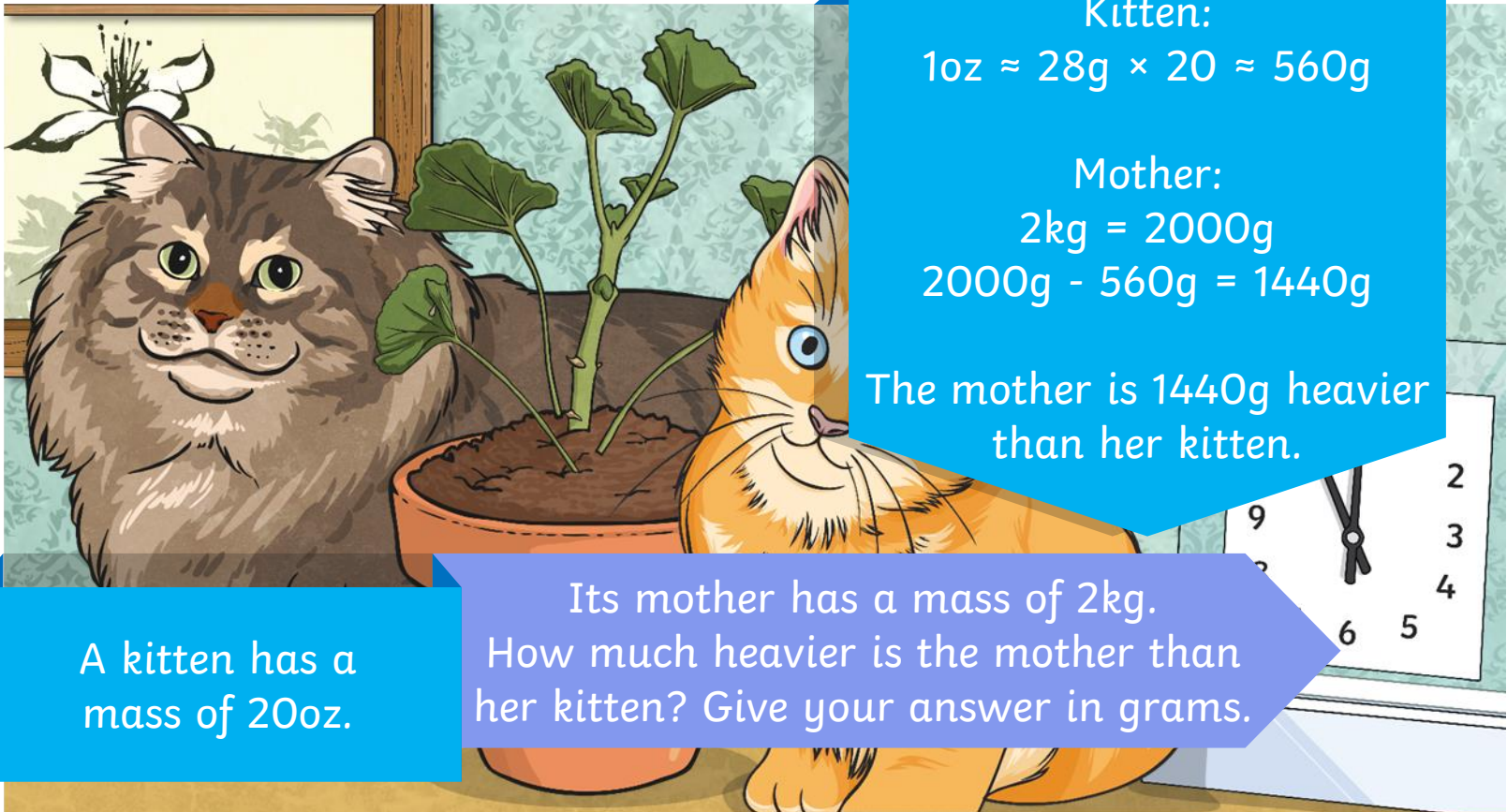
# Mass Problems



1oz  $\approx$  28 grams

1lb  $\approx$  450g

1kg  $\approx$  2.2lb



Kitten:

$$1\text{oz} \approx 28\text{g} \times 20 \approx 560\text{g}$$

Mother:

$$2\text{kg} = 2000\text{g}$$

$$2000\text{g} - 560\text{g} = 1440\text{g}$$

The mother is 1440g heavier than her kitten.

A kitten has a mass of 20oz.

Its mother has a mass of 2kg.  
How much heavier is the mother than her kitten? Give your answer in grams.

# Mass Problems



1oz  $\approx$  28 grams

1lb  $\approx$  450g

1kg  $\approx$  2.2lb

$$1\text{lb} \approx 450\text{g} \times 6 = 2700\text{g}$$

$$2700\text{g} = 2.7\text{kg}$$

$$2.7\text{kg} + 2.5\text{kg} = 5.2\text{kg}$$

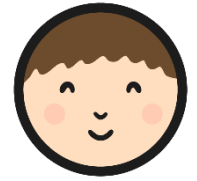
Aran's mass now is 5.2kg.

When Aran was born,  
his mass was 6lbs.

He gained 2.5kg in three months.  
What is his mass now?  
Give your answer in kilograms.



# Units of Mass



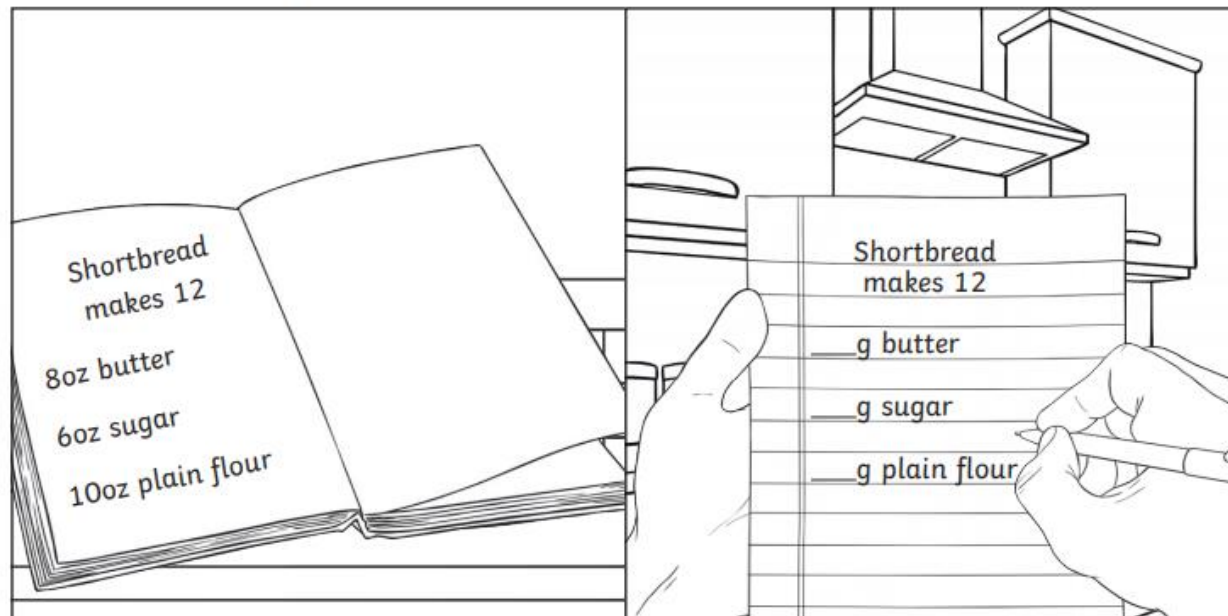
Can you answer these questions

1oz  $\approx$  30g

1lb  $\approx$  450g

1kg  $\approx$  2.2lb

- 1) Here is a recipe for biscuits. Convert the imperial measurements into metric units.



2) Fill in this chart to convert from pounds to grams.

1lb	2lb	5lb	10lb
450g			




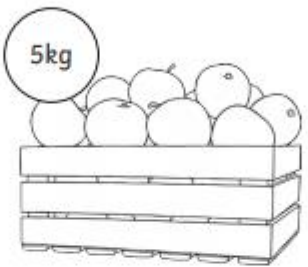


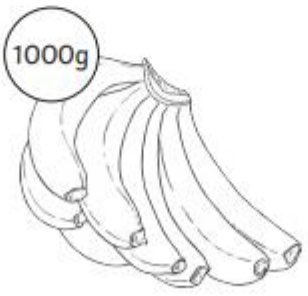



$1\text{oz} = 30\text{g}$

$1\text{lb} = 450\text{g}$

$1\text{kg} = 2.2\text{lb}$

- 3) The masses of these items of food have been recorded in either metric or imperial units of measurement. Convert each measurement into the given unit.

 <p>2.2lb</p> <p>twinkl</p> <p>GRANULATED SUGAR</p> <p>_____ g</p>	 <p>5kg</p> <p>_____ lb</p>	 <p>4.4lb</p> <p>twinkl</p> <p>_____ kg</p>
 <p>3000g</p> <p>Washing Powder</p> <p>_____ lb</p>	 <p>1000g</p> <p>_____ lb</p>	 <p>1.1lb</p> <p>_____ g</p>

Make sure you look at which measurement you are converting to.

- 4) Sara adopted two kittens called Kiki and Ken. Kiki has a mass of 10oz; Ken's mass is 250g. Which kitten is heavier? Show your working out.
- 





# Comparing Measurements



Use  $<$ ,  $>$  or  $\approx$  to compare each set of measurements. For each set, decide which measurement it would be more sensible to convert.

$1\text{lb} \approx 450\text{g}$

$1\text{kg} \approx 2.2\text{lb}$

An illustration of a wooden table surface. In the top left corner, there is a silver adjustable wrench. In the bottom right corner, there is a silver spoon. In the center of the table, there are three white rectangular cards with rounded corners. The first card on the left contains the text "3lb". The middle card contains a large black greater-than sign ">". The third card on the right contains the text "2kg".

3lb

$>$

2kg