Reasoning and Problem Solving
Step 3: Compare Mass

National Curriculum Objectives:

Mathematics Year 3: (3M1b) Compare mass (kg/g)

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Compare the mass of two objects and explain which is heavier or lighter. Using the same unit of measure g or kg in multiples of 1 and 10. Using heavier or lighter to compare.
Expected Compare the mass of two objects and explain which is heavier or lighter. Using some mixed units of measure, kg and g, in multiples of 1 and 5. Using heavier and lighter and the inequality symbols <, > to compare.
Greater Depth Compare the mass of two objects and explain which is heavier or lighter. Using all mixed units of measure, kg and g, in multiples of 1 and 5, with some presented as fractions. Using heavier, lighter and equal to, and the inequality symbols <, > and = to compare.

Questions 2, 5 and 8 (Problem Solving)
Developing Calculate the possible mass of an object using the same unit of measure g or kg in multiples of 1 and 10.
Expected Calculate the possible mass of an object using some mixed units of measure, kg and g, in multiples of 1 and 5.
Greater Depth Calculate the possible mass of an object using all mixed units of measure, kg and g, in multiples of 1 and 5, with some presented as fractions.

Questions 3, 6 and 9 (Problem Solving)
Developing Use the clues and interpret scales to identify the weight of a given object using the same unit of measure g or kg in multiples of 1 and 10. Using heavier or lighter to compare.
Expected Use the clues and interpret scales to identify the weight of a given object using some mixed units of measure, kg and g, in multiples of 1 and 5. Using heavier and lighter and the inequality symbols <, > to compare.
Greater Depth Use the clues and interpret scales to identify the weight of a given object using all mixed units of measure, kg and g, in multiples of 1 and 5, with some presented as fractions. Using heavier, lighter and equal to, and the inequality symbols <, > and = to compare.

More Year 3 Mass and Capacity resources

Did you like this resource? Don't forget to review it on our website.

Compare Mass

1a. Lucy and her friend are comparing the weights of their pet hamsters. Lucy says hers is lighter.

Amy

30g

Lucy

20g

Is she correct? Explain your answer.

D

R

1b. Charlie and his friend are comparing the weights of their pet rabbits. Charlie says his is heavier.

Charlie

800g

Ben

830g

Is he correct? Explain your answer.

D

R

2a. The carrots weigh more than the pen but less than the calculator. Their weight is a multiple of 10. What could the carrots weigh?

45g

100g

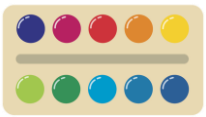
Write down 3 possibilities.

D

PS

2b. The pineapple weighs more than the paints but less than the beans. Its weight is a multiple of 10. What could the pineapple weigh?

250g



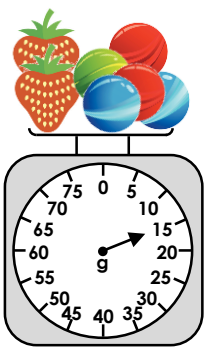
205g

Write down 3 possibilities.

D

PS

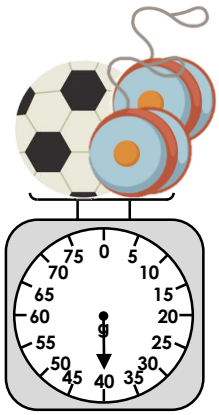
3a. If the marbles weigh 1g each and a cob of corn weighs 32g, how much does one strawberry weigh?



D

PS

3b. If a football weighs 20g each and a snow globe weighs 45g each, how much does one yoyo weigh?



D

PS

Compare Mass

4a. Anya and her friend are comparing their weights. Anya says she is the lightest.

Anya

33kg

Erin

32kg

Is she correct? Explain your answer.

E R

Compare Mass

4b. Mark and his friend are comparing their weights. Mark says he is the heaviest.

Mark

37kg

Joe

34kg

Is he correct? Explain your answer.

E R

5a. The ball weighs more than ten beetroots but less than the bucket and spade. Its weight is a multiple of 5. What could the ball weigh?

25g

300g

Write down 3 possibilities.

E PS

5b. The toy tractor weighs more than the drum but less than the pears. Its weight is a multiple of 5. What could the tractor weigh?

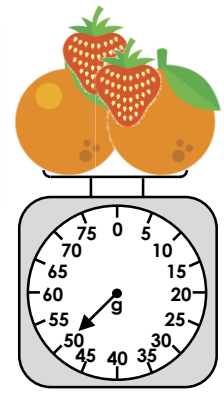
950g

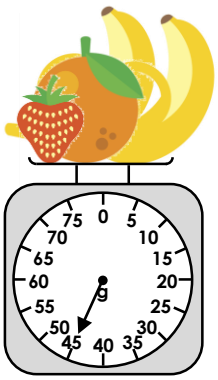
1kg

Write down 3 possibilities.

E PS

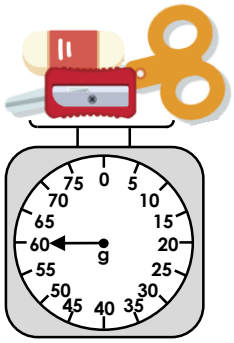
6a. If the strawberries weigh 5g each and a banana weighs 10g each, how much does one orange weigh?

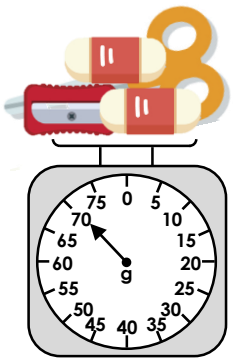




E PS

6b. If a rubber weighs 10g each and a sharpener weighs 5g each, how much does one pair of scissors weigh?





E PS

Compare Mass

7a. Jacob and his friend are comparing the weights of their schoolbags. Jacob says his is heavier.

Jacob

$5\frac{1}{2}$ kg

Maisie

5kg 500g

Is he correct? Explain your answer.

GD R

7b. Jolene and her friend are comparing the weights of their money boxes. Jolene says hers is the lightest.

Teddy

2kg 560g

Jolene

$3\frac{1}{2}$ kg

Is she correct? Explain your answer.

GD R

8a. The bucket and spade weighs more than the sharpener but less than the tractor, and over $\frac{1}{2}$ the mass of the dice.

150g

25g

2kg 5g

What could the bucket and spade weigh?
Write down 3 possibilities.

GD PS

8b. The scissors weigh more than the rubber but less than the pears, and less than $\frac{1}{2}$ the mass of the rocket.

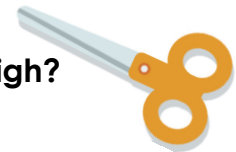
400g

1kg 20g

10g

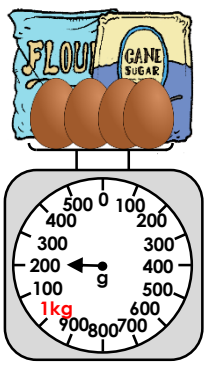
What could the scissors weigh?

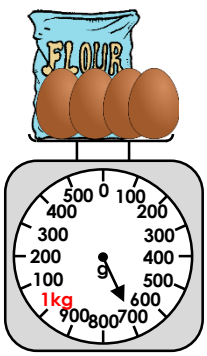
Write down 3 possibilities.



GD PS

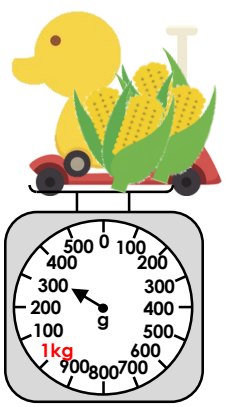
9a. If the flour and the sugar both weigh 500g each how much does one egg weigh?

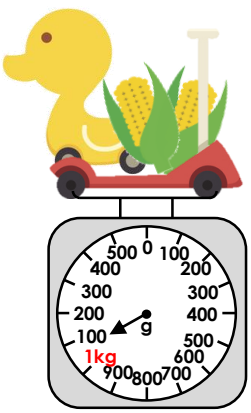




GD PS

9b. If the duck weighs 400g and the scooter weighs 500g how much does one cob of corn weigh?





GD PS

Reasoning and Problem Solving
Compare Mass

Developing

1a. Lucy is correct because Amy's hamster is 10g heavier.

2a. Various possible answers, for example: 50g, 60g, 70g.

3a. Strawberry = 5g

Expected

4a. Anya is incorrect because she is 100g heavier than Erin.

5a. Various possible answers, for example: 255g, 265g, 275g.

6a. Orange = 20g

Greater Depth

7a. Jacob is incorrect because both bags weigh the same.

8a. Various possible answers, for example: 900g. Any weight in grams between 76g and 2kg 4g.

9a. Egg = 50g

Reasoning and Problem Solving
Compare Mass

Expected

1b. Charlie is incorrect because Ben's rabbit is 30g heavier.

2b. Various possible answers, for example: 210g, 220g, 230g.

3b. Yoyo = 10g.

Expected

4b. Mark is correct because Joe is 300g lighter than him.

5b. Various possible answers, for example: 955g, 965g, 975g.

6b. Pair of scissors = 45g

Greater Depth

7b. Jolene is incorrect because Teddy's money box is less than 3kg.

8b. Various possible answers, for example: 200g. Any weight in grams between 11g and 399g.

9b. Corn = 100g