

Measuring mass in grams (I)

→ pages 90–92

1. 15, 40
2. Children should have found three of the following five combinations:
 $25\text{ g} + 25\text{ g}$
 $25\text{ g} + 10\text{ g} + 10\text{ g} + 5\text{ g}$
 $25\text{ g} + 10\text{ g} + 5\text{ g} + 5\text{ g} + 5\text{ g}$
 $10\text{ g} + 10\text{ g} + 10\text{ g} + 10\text{ g} + 5\text{ g} + 5\text{ g}$
 $10\text{ g} + 10\text{ g} + 10\text{ g} + 5\text{ g} + 5\text{ g} + 5\text{ g} + 5\text{ g}$
3. a) 40, 55. The pear has a mass of 32 g.
b) Children should have drawn the needle pointing to 95 g.
4. a) The mass of 10 cubes should be double the mass of 5 cubes.
b) The actual measurement of 15 cubes should be three times the mass of 5 cubes.

Reflect

Children could have explained the methods in different ways, e.g.

Rav needs to place the cheese on the scales and read off the measurement the arrow points to.

Alia needs to estimate how much cheese will have a mass of 30 g, cutting off her estimate. She needs to weigh the piece she has cut off and then add more to or remove pieces from this until the scales show 30 g.

Measuring mass in grams (2)

→ pages 93–95

1. Missing numbers:
 - a) clockwise round the scale: 700 g, 800 g, 900 g
 - b) from left to right along the scale: 0 g, 500 g, 1000g (or 1 kg)
2. 100 g, 400 g, 1000 g (or 1 kg)
3. a) 100, 300, 700
b) Children should have drawn needles pointing at the following masses: 400g, 600 g, 0 g (1000 g)
4. 200, 250. Bag A is heavier.

Reflect

Children could have explained their reasoning in different ways, e.g.

The black-spotted guinea pig weights just over 600 g. The golden guinea pig weights just under 600 g. This means that the black-spotted guinea pig is heavier than the golden guinea pig but they both have a mass of 600 g when given to the nearest 100 g.

Measuring mass in kilograms

→ pages 96–98

1. a) 3 kg, 15 kg, 30 kg
b) hedgehog < dog, dog > badger, fox < dog
2. Children should have drawn arrows pointing to:
a) 8 kg, 12, kg, 20 kg
b) 28 kg, 32 kg, 20 kg
3. Children should have circled:
2 kg, 20 g, 200 g
4. From lightest to heaviest: B, C, A

Reflect

Children could have chosen many different objects to complete the sentences, e.g.

A pen and a ruler each have a mass of less than 1 kg.

A large cake and a litre of orange juice each have a mass of approximately 1 kg.

A small dog has a mass of approximately 10 kg.

Comparing volume

→ pages 99–101

1. more, more, less
2. B, A, C
3. 2, 10, 5
4. Children should have matched:
 - A (half filled) < 10 cups
 - B (filled) $= 10$ cups
 - C (half filled) > 10 cups
 - D (three-quarters filled) > 10 cups
5. There are 11 spoonfuls of rice left in the packet.

Reflect

Children could have suggested different methods, e.g.

You could compare the weights of each container of rice using scales.

You could pour rice from one container into another, having emptied the second container. If the rice from the first container will not all fit then the first container holds more rice. If the rice fits with space left over then the second container holds more rice. You will need to test each container against other containers until you are sure of the order.