

COMPARING MASS



These images are not shown to the same scale. An elephant is much bigger and heavier than a cat or a car.

Can you arrange these things in order from lightest to heaviest?

Can you estimate the mass of each of these things?

How many oranges do you think you would need to balance an elephant in the scales?

Now try matching the list of objects below to their masses. You could cut out the cards.

A1 Car	A2 10 year old girl	A3 Orange	A4 Cat	A5 Elephant
A6 Truck	A7 One year old baby	A8 Paperback book	A9 Man	A10 Phone
M1 200 g	M2 6000 kg	M3 260 g	M4 4500 g	M5 70 kg
M6 115 g	M7 1400 kg	M8 9 kg	M9 30 kg	M10 2700 kg

Help

Work with a partner. Find 3 objects that can be weighed such as an apple, a brick and bottle of water.

Handle the objects one by one, estimate the weights and both of you should write down your estimates.

Then actually weigh the objects and check your estimates.

You may need to ask for some help in reading the scales.

Extension

Make up some more questions like the oranges and elephant question and work out the answers. Then challenge another learner or the whole class to work on these questions.

Here is a recipe for 12 chocolate chip cookies. What quantities would you need to make enough for your class?

125g butter, softened
 100g light brown sugar
 125g caster sugar
 1 egg, lightly beaten
 1 teaspoon vanilla extract
 225g self-raising flour
 ½ teaspoon salt
 200g chocolate chips

1. Preheat the oven to 180°C, gas mark 4
2. Cream butter and sugars. Once creamed, combine in the egg and vanilla.
3. Sift in the flour and salt, then the chocolate chips.
4. Roll into walnut size balls, for a more homemade look, or roll into a long, thick sausage shape and slice to make neater looking cookies.
5. Place on ungreased baking paper and bake for just 10 minutes.
6. Take out of the oven and leave to harden for a minute before transferring to a wire cooling rack.