

## Measure Mass

### Adult Guidance with Question Prompts



Check that children understand that when scales are balanced, the mass is equal and both sides are the same height. They then start to use non-standard units such as cubes to measure the mass of an object. Children learn that the weight of an object can be determined by the number of units used to balance it. They discover that it can be tricky to balance objects accurately with non-standard units. They begin to make decisions about what units to use to measure the mass of an object.

How many cubes balance the cap?

How many cubes will you need to balance your object?

Can you add one cube at a time?

How many cubes weigh the same as the blue cap?

What will happen if you add one more cube or take one away?

Try using some different non-standard units to measure the mass of your object.

Which work well? Which are tricky? Why?

Which non-standard units would you choose to measure the mass of a full water bottle? Why?

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The cap weighs the same as \_\_\_\_ cubes.

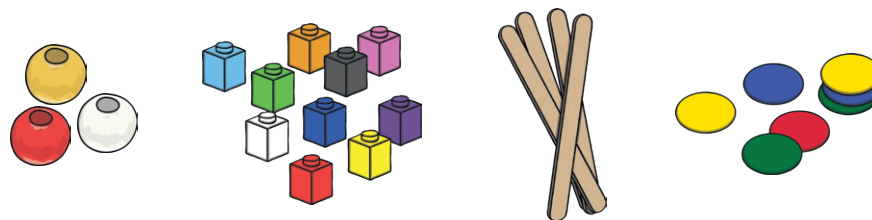


Choose a toy. How many cubes does it weigh?

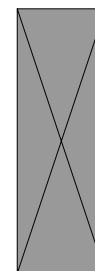


Choose something new to measure your toy with.

Do you need the same amount of them?



What would you use to find the mass of a full water bottle?



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How many apples weigh the same as the red book?

How many apples weigh the same as the green book?

Which book weighs more?

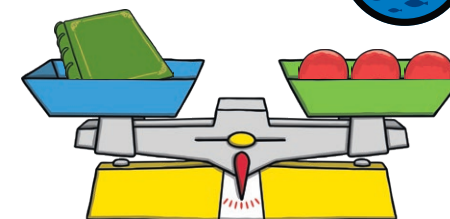
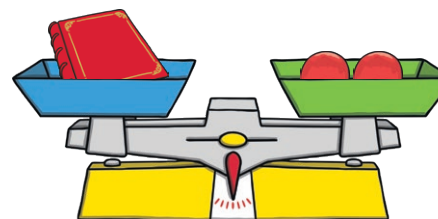
Is this sentence true or false? How do you know?

What can you find out about the weight of the toys?

Do you agree with either of the children? Why?

Can you make a question like this for your friend?

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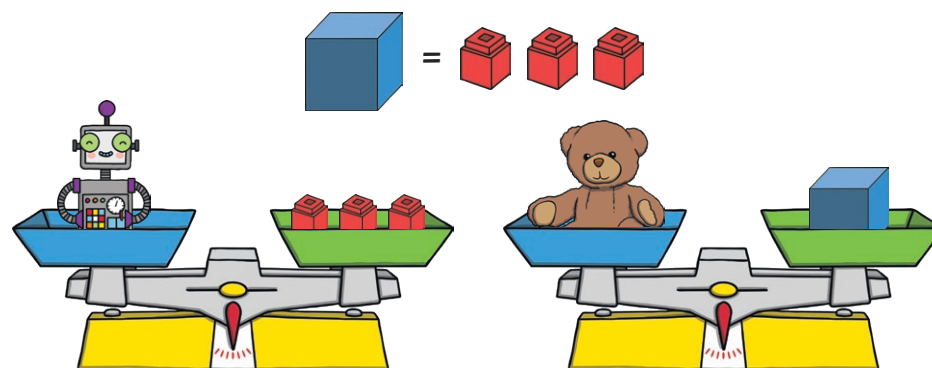


True or False?

The red book is heavier than the green book.

The green book is lighter than the red book.

They have the same mass.



The robot is heavier than the bear.

They weigh the same.

What do you think?

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Check that children understand that when scales are balanced, the mass is equal and both sides are the same height. They then start to use non-standard units such as cubes to measure the mass of an object. Children learn that the weight of an object can be determined by the number of units used to balance it. They use non-standard units to solve problems involving comparing the weight of objects.

Does the blue cup weigh the same as 3 blocks? Why not?

What happens if you take the cube away from the blue cup?

How can you make the scales balance again?

How many cubes does the blue cup weigh?

What can you do to work out the weight of the yellow cup?

Is the yellow cup lighter than the blue cup?

Can you find out how many cubes balance the green cup?

Is it heavier than the yellow cup?

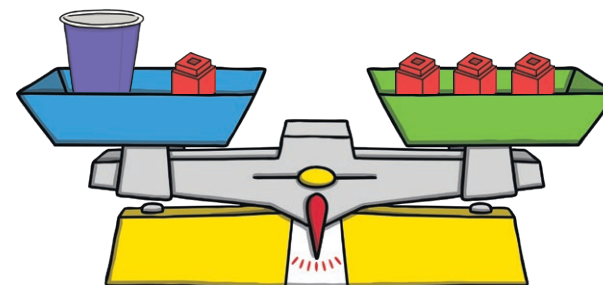
Can you make a question like this for your friend?

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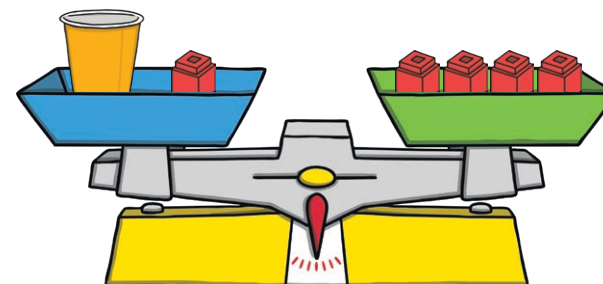
How many cubes does the blue cup weigh?

How can you find out?



Is the yellow cup lighter than the blue cup?

How can you find out?



Is the green cup heavier than the blue cup?

How can you find out?

