

Introduce weight and mass (2)

Adult Guidance with Question Prompts



Children build upon their understanding of 'heavy' and 'light' gained from first-hand experience. They are introduced to the terms 'weight' and 'mass'. (At this level, the terms are interchangeable.) Children begin by talking about mass as they hold objects. The vocabulary: heavier, heaviest, lighter, lightest and equal to is used to describe mass. Children learn how to use balance scales to compare mass. They begin to explore the misconception that larger objects are always heavier than smaller objects.

What do the balance scales tell us about the mass of the objects?

What does the lowest side of the scales show us?

What does the highest side of the scales show us?

What if both sides are the same?

Look at one set of balance scales at a time.

What can you tell me about the mass of each pair of objects?

Can you use these words to describe their mass? (heavier than, lighter than, or equal to)

Does it matter what size the objects are?

Find two classroom objects that will fit in the balancing scales.

Which do you think is heavier/lighter?

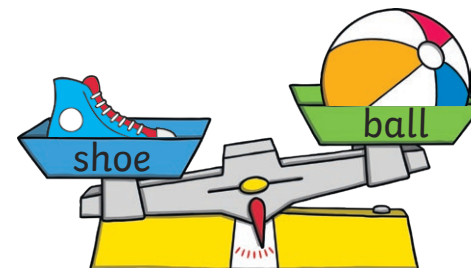
Can you use the balance scales to check?

Can you find two objects that are equal in mass?

What will this look like on the balance scale?

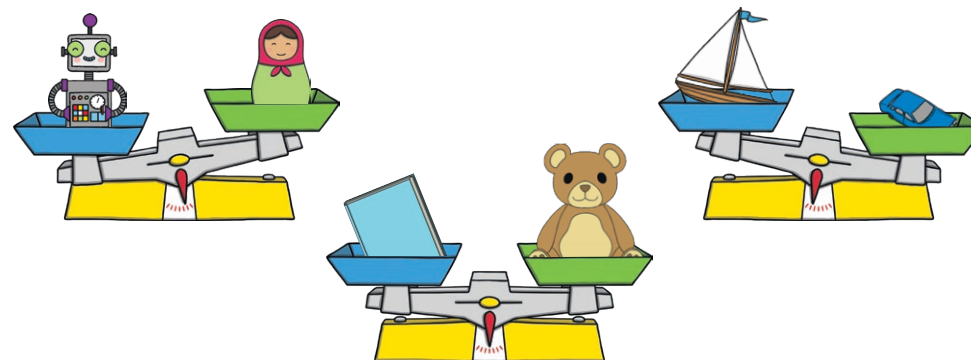
Are objects that have the same mass always the same size?

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The _____ is heavier than the _____.

The _____ is lighter than the _____.



Can you describe the mass of these objects using these words?

lighter than

equal to

heavier than

Choose two objects and compare their mass.
Can you find two objects that have the same mass?

Are they the same size?

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Do you think the car or the paper would be heavier? Can you explain why?
What would this look like on the balance scales. How would they move?
Which of the statements are true? Can you explain why?

What have you discovered about the size of objects and their mass?

Find four objects.

Can you sort them from lightest to heaviest?

How can you use the balance scales to check?

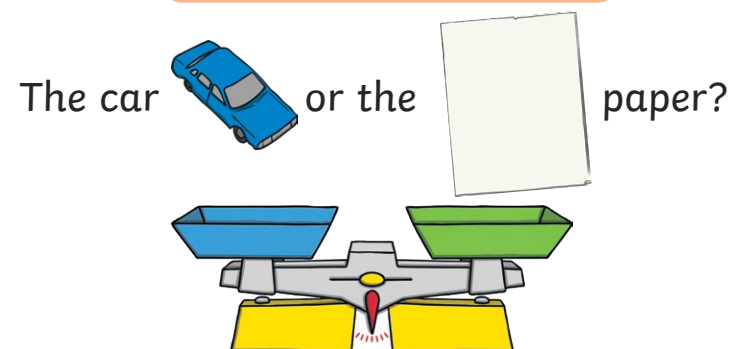
Is the smallest the lightest?

Is the biggest the heaviest?

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Which is heavier?



Which of these statements is correct?

The car will go down because it is heavier than the paper.

The car will go up. It is lighter because it is smaller than the paper.

The paper will go down. It is heavier because it is bigger than the car.

The balance scales won't move. They are the same colour so they have the same mass.

Choose 4 objects.

Can you sort them from the lightest to the heaviest?
How can you use the balance scales to check?

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What object have you found?

How can you check that you are right?

What can you tell me about your investigation?

Can you make a similar challenge for your friend?

What can you tell me about the balance scales?

What do they tell us about the mass of the ball?

Which sentences are correct?

Can you explain your reasoning?

What does this tell us about the mass of the book and the cup?

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Can you find something that is heavier than a paintbrush but lighter than a book?

How can you check?



True or false?



The ball is heavier than the cup.

The ball is heavier than the book.

The ball is lighter than the cup.

The ball is lighter than the book.

What can you say about the mass of the cup and the book?

Pick three objects and make a 'True or false' challenge for a friend.