




KPSI: MATTER AND MACHINES

Write "YES" or "NO" in every box to evaluate your knowledge.

| |  I don't know |  I know a little |  I could explain it |
|--|---|---|---|
| Can you define the term " matter "? | | | |
| Can you describe the properties of matter? | | | |
| Can you define the types of matter ? | | | |
| Can you describe the states of matter ? | | | |
| Can you explain the changes in matter ? | | | |
| Can you describe the types of energy ? | | | |
| Can you distinguish simple machines and complex machines ? | | | |
| Can you classify machines depending on the power source ? | | | |
| Can you explain how some simple machines work ? | | | |
| Can you understand how machines make our daily life easier ? | | | |

DAY 1: PROPERTIES OF MATTER

1. Watch the video "[Mass - the amount of matter](#)" and answer the following questions.

1.1. What is **mass**?

Mass is _____ that an object or body has.

1.2. What does professor Bill Tyson say about mass?

The more mass an object has, _____ difficult it will be to move.

1.3. Which object has **more mass**: the pencil or the workbench?

The _____ has more mass than the _____.

1.4. How do we **measure mass**?

We measure mass in _____ and _____.

2. Observe these two objects and answer the question.



Steel ball



Wool ball



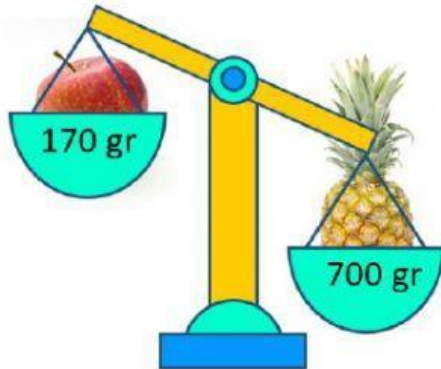
Balloon

Which object has the greatest mass?

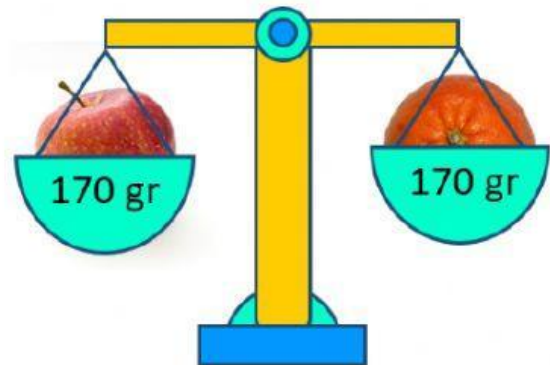
The _____ has greatest mass because it is the _____.

3. Complete the sentences about mass according to the images.

3.1. An apple has _____
mass than a pineapple.



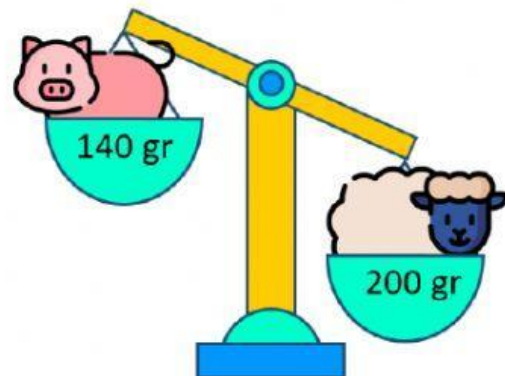
3.2. The apple has _____
mass than the orange.



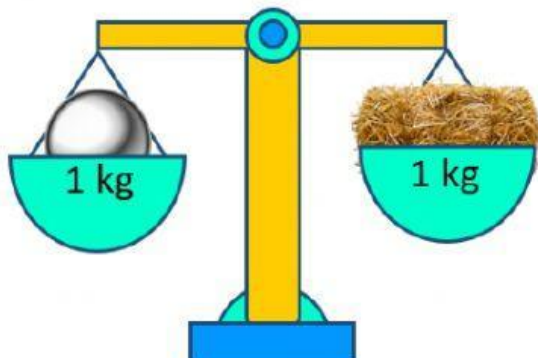
3.3. The ham has _____
mass than the chicken.



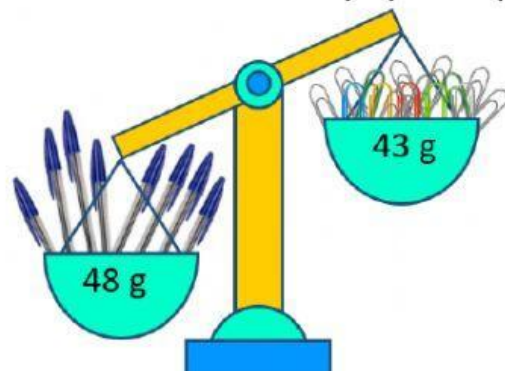
3.4. This pig has _____
mass than this sheep.



3.5. 1kg of steel has _____
mass than 1kg of straw.



3.6. These pens have _____
mass than these paper clips.



4. Watch the video "[Measuring liquid volume](#)" and answer the following questions.

4.1. What is **volume**?

Volume is the _____.

4.2. How do we **measure volume**?

We measure volume in _____.

4.3. Which bottle contains **more volume**? Tick the correct answer.

☐ The bottle of water has more volume than the others.

☐ The bottle of milk has more volume than the others.

☐ The bottle of juice has more volume than the others.

☐ The three bottles have the same volume.

4.4. What volume does the bottle of milk contain?

The bottle of milk contains _____.

5. Observe these two objects and answer the question.



Steel ball



Wool ball

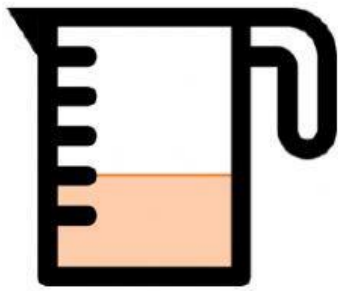


Balloon

Which object has the greatest volume?

The _____ has greatest volume because it is the _____.

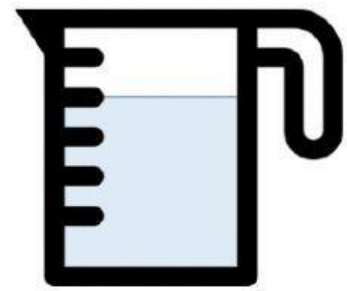
6. Look at the pictures and answers the questions about volume.



Orange juice



Lemonade



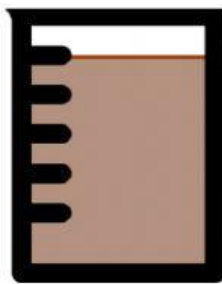
Water

6.1. What measuring jar contains **more liquid**?

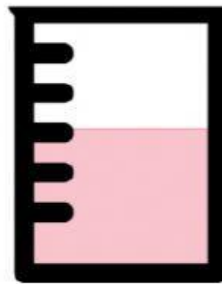
The measuring jar with _____ contains more liquid.

6.2. What measuring jar contains **less liquid**?

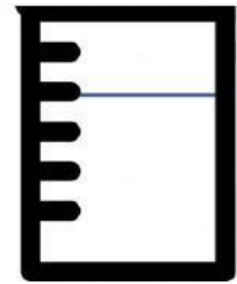
The measuring jar with _____ contains less liquid.



Cocoa



Milkshake



Milk

6.3. What measuring cylinder contains **more liquid**?

The measuring jar with _____ contains more liquid.

6.4. What measuring cylinder contains **less liquid**?

The measuring jar with _____ contains less liquid.



6.5. What bottle contains **more liquid**?

The bottle of water has _____ than the carton of milk.

7. Complete the sentences about the properties of matter.

matter space grams litres scales properties cylinders

Matter is everything in the universe. All matter has two _____:

Mass is the amount of _____ there is in an object. We measure mass in _____ or kilograms using _____.

Volume is the _____ that an object occupies. We measure volume in _____ using instruments like measuring jugs and measuring _____.