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## Worksheet Properties of materials

Materials needed:

Metal spoon

Sugar

Clear glass

Wooden spatula

Clay

Oil

Sponge

Paper clip

Stirrer

2 Measuring cups (150mL)

Tap water

Magnet

Cotton

Answer the following questions:

### Hardness of an object

1. Compare the hardness of a metal spoon, cotton, clear glass, sponge, and clay.
2. Arrange the materials from hardest to softest:

\_\_\_\_\_

3. How would you define hardness?

\_\_\_\_\_

4. Infer how would you test the hardness of an object.

\_\_\_\_\_

5. Give thee hard objects found inside your school bag.

### Solubility of an object

1. Compare the solubility of sugar and oil.
  - a. Fill the two cups with 100mL of tap water.
  - b. Label the two cups with A and B.
  - c. Place one spoonful of sugar to cup A and one spoonful of oil to cup B.



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- d. Stir the substance for 30 seconds and observe.
2. What is solubility?
- 
3. What is the difference between solvent and solute?  
What are the solvent/s and solute/s in this activity?
- 
- 
4. What substance is more soluble in water, oil or sugar?  
Explain your answer.
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### Transparency of an object

1. Compare the transparency of clear glass, wooden spatula, and clay.
2. What is the most transparent object?
- 
3. What is transparency?
- 
4. Give two transparent objects found inside your classroom.
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### Conductivity of an object

1. If you place the metal spoon and wooden spatula in a pot with boiling water, which object will absorb more heat in a shorter period?
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2. Define conductivity.
- 



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3. Give two objects that are good conductors of heat or electricity.

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### Response to magnets

1. Compare the response to magnets of clay, paper clip, and sponge.
2. What object/s is/are attracted to the magnet?

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3. What object/s repelled the magnet?

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### Conclusion:

What is the importance of identifying the properties of different materials?

