

### **Instructions:**

- ✚ Use your natural science book and textbook to complete tasks that are being given.
- ✚ All activities to be done in blue pen and corrections in green as you would have in class.
- ✚ Turn to the section and page number provided.
- ✚ Rule off after all revision activities are done. (D6 Communicator)
- ✚ Read the notes given on the worksheet provided and the textbook that you have in order to complete all the activities in your classwork book.
- ✚ Follow these instructions for all worksheets for both subjects. (TECH and NS).
- ✚ Links are provided only if you have WIFI/ DATA available.

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## **PROPERTIES OF MATERIALS- PG. 65...**

### **Physical properties of materials-PG. 66-72**

#### **WORD BANK**

**Physical property:** something about a material that can be used to ***describe*** how it ***looks, feels*** or ***behaves***.

**Materials:** the substance out of which a thing is made.

**Matter:** everything around us that has mass and takes up space.

**Melting point:** the temperature at which a solid changes to a liquid.

**Boiling point:** the temperature at which a liquid changes to a gas.

Physical properties are characteristics of certain materials. Here are some properties we consider when manufacturing materials.

- ✚ Matter: anything that has mass and takes up space.
- ✚ Strength
- ✚ Flexibility
- ✚ Electrical conductivity
- ✚ Heat conductivity
- ✚ Boiling point
- ✚ Melting point

Materials can be natural (e.g. wool) and man-made (e.g. Plastic).

Materials chosen for a product must suit its purpose and what it is. Example think of a **window**.

1. What is the **purpose** of a window?
2. Based on its purpose what should the window be **made of**?

**Strength:** a strong material will not bend, break, shatter or deform when forces are applied to it. These forces can be a pushing or pulling action.

List three strong materials that you have at home.

### **Activity 1:**

1. From the following list of materials, choose the one most suitable for each task given below.

**Concrete    copper    newspaper    plastic-cling wrap    hard plastic    steel**

- a. Making an electric wire.
  - b. Wrapping a sandwich
  - c. Making a chair
  - d. Building a wall.
  - e. Putting insulation between a mattress and the floor.
  - f. Making a water pipe.
  - g. Laying the floor of the house.
  - h. Making a frying pan.
  - i. Making a water bottle.
  - j. Making a toy wire car.
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2. If your teacher asks you to perform an experiment in class which determines the boiling point of water, orange juice and milk. Answer the following questions to help you get started. (NB: DO NOT DO THE EXPERIMENT AT HOME.)
    - a. Define the term boiling point.
    - b. Identify all variables that must be kept constant.
    - c. Identify the dependent and independent variables.
    - d. Make a list of all the apparatus you need to perform the experiment.