**Matching Definitions**

1. Identify and write the name of each of the three definitions below using the following choices: (see pages 106 and 117 in the blue textbook)

* Choices: **Meta**l, **Non-Metal**, **Physical Property**

Definition:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A feature of a substance that can be observed or measured without changing the type of substance it is.

Definition:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A substance that is normally a solid at room temperature and that is shiny, malleable, ductile, and a good conductor.

Definition:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A substance that can be a solid, liquid, or gas, and that is usually dull, brittle, not ductile, and a poor conductor.

**Physical Properties**

1. Match the definition for each of the Physical Properties listed below. Write the definition letter beside each property. (see page 106 in the blue textbook and   
   pages 150 to157 in the orange textbook)

|  |  |  |  |
| --- | --- | --- | --- |
| **Physical Property** | **Definition Letter** |  | **Definition Choices** |
| Colour | \_\_ **C** \_\_ |  | 1. Describes how much of a substance dissolves in a liquid such as water. |
| Lustre | \_\_\_\_\_\_ |  | 1. Describes how well a liquid substance flows. (e.g. watery or thick like honey) |
| Transparency | \_\_\_\_\_\_ |  | 1. Describes the colour of a substance. |
| State | \_\_\_\_\_\_ |  | 1. Describes if a solid substance can be flattened out (e.g. bendable or rigid) |
| Crystal Form | \_\_\_\_\_\_ |  | 1. The temperature at which a substance turns into a solid |
| Solubility | \_\_\_\_\_\_ |  | 1. Describes how well the surface of a substance reflects light (e.g. shiny or dull) |
| Texture | \_\_\_\_\_\_ |  | 1. Describes if a solid substance can be stretched into a thin wire |
| Malleability | \_\_\_\_\_\_ |  | 1. The temperature at which a substance turns into a liquid |
| Ductility | \_\_\_\_\_\_ |  | 1. Describes how well light shines through a substance. (e.g. clear, transparent, opaque) |
| Viscosity | \_\_\_\_\_\_ |  | 1. Describes how the surface of a substance feels. (e.g. rough, soft, smooth) |
| Conductivity | \_\_\_\_\_\_ |  | 1. The temperature at which a substance turns into a gas |
| Density | \_\_\_\_\_\_ |  | 1. Describes if the substance is a solid, liquid, or gas |
| Boiling point | \_\_\_\_\_\_ |  | 1. Describes how compact a substance is, and is calculated by dividing its mass by its volume. (D=m/v) |
| Melting point | \_\_\_\_\_\_ |  | 1. Describes the shape of a solid substance. (e.g. powder, crystals, chunky) |
| Freezing point | \_\_\_\_\_\_ |  | 1. Describes how well a substance lets heat or electricity move through it. |

**Physical Properties Investigation**

1. Find a sample substance that demonstrates each of the physical properties listed in in the table below.
   1. Clearly state the name of the substance (see your teacher if uncertain)
   2. Clearly explain how the substance demonstrates the physical property
   3. Predict if you think the substance is a metal or a non-metal
   4. **RULE**: You cannot **repeat** substances for more than one property!

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Substance Name** | **Observation: How the substance demonstrates the property** | **Metal or a Non-Metal** |
| Colour |  |  |  |
| Lustre |  |  |  |
| Transparency |  |  |  |
| State |  |  |  |
| Crystal Form |  |  |  |
| Solubility |  |  |  |
| Texture |  |  |  |
| Malleability |  |  |  |
| Ductility |  |  |  |
| Viscosity |  |  |  |

**ANSWER KEY: Matching Definitions**

1. Identify and write the name of each of the three definitions below using the following choices: (see pages 106 and 117 in the blue textbook)

* Choices: **Meta**l, **Non-Metal**, **Physical Property**

Definition:\_\_ **Physical Property** \_\_

A feature of a substance that can be observed or measured without changing the type of substance it is.

Definition:\_\_ **Meta**l \_\_\_\_\_\_\_\_\_\_\_\_\_

A substance that is normally a solid at room temperature and that is shiny, malleable, ductile, and a good conductor.

Definition:\_\_ **Non-Metal** \_\_\_\_\_\_\_\_\_

A substance that can be a solid, liquid, or gas, and that is usually dull, brittle, not ductile, and a poor conductor.

**ANSWER KEY: Physical Properties**

1. Match the definition for each of the Physical Properties listed below. Write the definition letter beside each property. (see page 106 in the blue textbook and   
   pages 150 to157 in the orange textbook)

|  |  |  |  |
| --- | --- | --- | --- |
| **Physical Property** | **Definition Letter** |  | **Definition Choices** |
| Colour | \_\_ **C** \_\_ |  | 1. Describes how much of a substance dissolves in a liquid such as water. |
| Lustre | \_\_ **F** \_\_ |  | 1. Describes how well a liquid substance flows. (e.g. watery or thick like honey) |
| Transparency | \_\_ **I** \_\_ |  | 1. Describes the colour of a substance. |
| State | \_\_ **L** \_\_ |  | 1. Describes if a solid substance can be flattened out (e.g. bendable or rigid) |
| Crystal Form | \_\_ **N** \_\_ |  | 1. The temperature at which a substance turns into a solid |
| Solubility | \_\_ **A** \_\_ |  | 1. Describes how well the surface of a substance reflects light (e.g. shiny or dull) |
| Texture | \_\_ **J** \_\_ |  | 1. Describes if a solid substance can be stretched into a thin wire |
| Malleability | \_\_ **D** \_\_ |  | 1. The temperature at which a substance turns into a liquid |
| Ductility | \_\_ **G** \_\_ |  | 1. Describes how well light shines through a substance. (e.g. clear, transparent, opaque) |
| Viscosity | \_\_ **B** \_\_ |  | 1. Describes how the surface of a substance feels. (e.g. rough, soft, smooth) |
| Conductivity | \_\_ **O** \_\_ |  | 1. The temperature at which a substance turns into a gas |
| Density | \_\_ **M** \_\_ |  | 1. Describes if the substance is a solid, liquid, or gas |
| Boiling point | \_\_ **K** \_\_ |  | 1. Describes how compact a substance is, and is calculated by dividing its mass by its volume. (D=m/v) |
| Melting point | \_\_ **H** \_\_ |  | 1. Describes the shape of a solid substance. (e.g. powder, crystals, chunky) |
| Freezing point | \_\_ **E** \_\_ |  | 1. Describes how well a substance lets heat or electricity move through it. |