

HAND OUT 2/3

CLASS VIII

SCIENCE

CHAPTER - 4

MATERIALS: METALS AND NON METALS

INTRODUCTION:

SLIDE 1

MATERIALS: Two types of materials: Metals and non metals;

Physical properties of metals:

Metals are lustrous, sonorous, malleable, ductile, good conductors of heat and electricity.

- Metals are lustrous, sonorous, malleable, ductile, good conductors of heat and the property of metals by which they can be beaten in to sheets.
- Ductility: Metals can be drawn in to wires.

SLIDE 2

- Sonorous: Producing sound.
- Lustrous: Bright appearance.

SLIDE 3

- Good conductors: Conduct heat and electricity.
- Hard

Examples; Iron, copper, aluminum, magnesium etc

SLIDE 4

Physical properties of Non – metals:

- Non-sonorous
- Brittle.

SLIDE 5

- Poor conductors of heat and electricity.
- Non malleable.

Examples of non metals: sulphur, carbon, oxygen, phosphorous etc.

SLIDE 6

- They breakdown easily.
- They are not sonorous.
- They are poor conductors of heat and electricity.

SLIDE 7

- Metals with Exceptions:
- Metals like sodium, potassium can
- Cut with knife.
- Mercury is the only metal which is in liquid state.

SLIDE 8

Chemical properties:

- Reaction of metals with oxygen.
- Metals react with oxygen to form its oxide.

Eg: iron +oxygen+ water-----> iron oxide.

Magnesium +oxygen-----> magnesium oxide.

SLIDE 9

When magnesium oxide is added with water and tested with red litmus then red turns to blue, which shows that it is basic in nature.

SLIDE 10

Reaction of non-metals with oxygen:

Sulphur + oxygen -----> sulphur di-oxide

When sulphur di-oxide is added with water, sulphurous acid is formed. It turns blue litmus to red which shows that it is acidic in nature.
