

## The National Orthodox School /Shmaisani

**Subject: Science/ Physics**

**Name: .....Key .....**

**Title: Worksheet 1**

**Grade-Section: 6 CS -**

**Date: .....**

### **Objectives:**

- Be able to write a proper hypothesis for different statements.
- Be able to identify the dependent and the independent variables.

### **Question one:**

For each statement below identify the dependent and the independent variables:

**1:** The higher the temperature of the air in the oven, the faster the cake will bake .

Independent variable: \_\_\_\_\_ **The temperature of the air** \_\_\_\_\_ .

Dependent variable: \_\_\_\_\_ **Cake bake time** \_\_\_\_\_ .

**2:** The time it takes to run one kilometer depends on the person's running speed.

Independent variable: \_\_\_\_\_ **Running speed** \_\_\_\_\_ .

Dependent variable: \_\_\_\_\_ **Time to run one kilometer** \_\_\_\_\_ .

**3:** Students measured the temperature of the water at different depths in lake and found that the temperature varied.

Independent variable: \_\_\_\_\_ **Different depths** \_\_\_\_\_ .

Dependent variable: \_\_\_\_\_ **Temperature** \_\_\_\_\_ .

4: An investigation found that lots of potatoes were produced when the soil was fertilized more.

Independent variable: \_\_\_\_\_ Amount of fertilizer \_\_\_\_\_.

Dependent variable: \_\_\_\_\_ Amount of potatoes produced \_\_\_\_\_.

5: The amount of pollution produced by cars was measured for cars using gasoline containing different amounts of lead.

Independent variable: \_\_\_\_\_ Amount of lead in gasoline \_\_\_\_\_.

Dependent variable: \_\_\_\_\_ Pollution production \_\_\_\_\_.

6: Lemon trees receiving the most water produced the most lemons.

Independent variable: \_\_\_\_\_ Amount of water \_\_\_\_\_.

Dependent variable: \_\_\_\_\_ Amount of lemons produced \_\_\_\_\_.

### **Question two:**

State a proper hypothesis for the following investigations and identify the dependent and the independent variables:

1: What effect does temperature have on plants' growth?

Hypothesis: \_\_\_\_\_ Temperature affect plants' growth \_\_\_\_\_.

Independent variable: \_\_\_\_\_ Temperature \_\_\_\_\_.

Dependent variable: \_\_\_\_\_ Plants' growth \_\_\_\_\_.

2: How does the color of food affect the amount of food that fish eat?

Hypothesis: \_\_ The color of food affects the amount eaten by fish \_\_.

Independent variable: \_\_\_\_\_ The color of food \_\_\_\_\_.

Dependent variable: \_\_\_\_\_ Amount of food that fish eat \_\_\_\_.