Al-Bayader-School Matter worksheet 2022 Grade 4 ( )

Name: _____

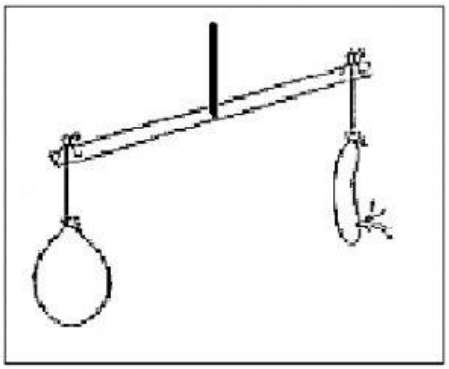
Exercise 1:

Sami, a fourth grader, wanted to prove that air is matter. He performed two experiments.

In Experiment (A), Sami got a deflated balloon (with no air in it) and placed it in his pocket. It fitted perfectly. Sami then filled the balloon with air and tried to put it back in his pocket, the balloon could not fit.

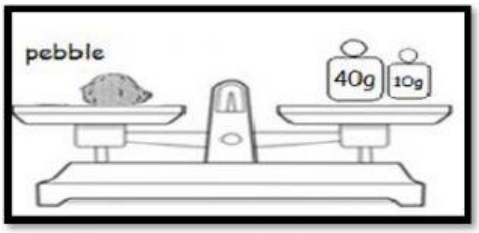
1. What does experiment (A) tell us about air?
    a. Air takes space
    b. Air has mass.

Sami did another experiment (B) as shown in the figure. He placed 2 balloons on a stick, one having air and the other doesn't have air. The balloon that has air pushed down.



1. What does experiment B show?
    a. Air takes space
    b. Air has mass
2. Is air matter? Justify by giving two reasons, using experiments (A) and (B).
    a. No, air is not matter since it has no mass and no volume.
    b. Yes, air is matter since it has mass and volume.

Exercise 2: Grade 4 students are given a pebble to study its properties:



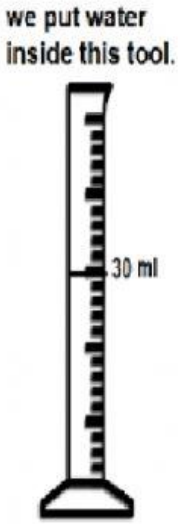
1. Using your knowledge, define mass and indicate its units.
   a. It is the amount of matter in an object.
   b. It is the space an object occupies and has units ml, L
   c. It is the amount of matter in an object, with units kg or g.

2. Name the instrument (tool) used above.
   a. Pan Balance
   b. Graduated Cylinder
   c. Pebble

3. Calculate the mass of the pebble
   a. 40 g
   b. 50 kg
   c. 50 ml
   d. 50 g

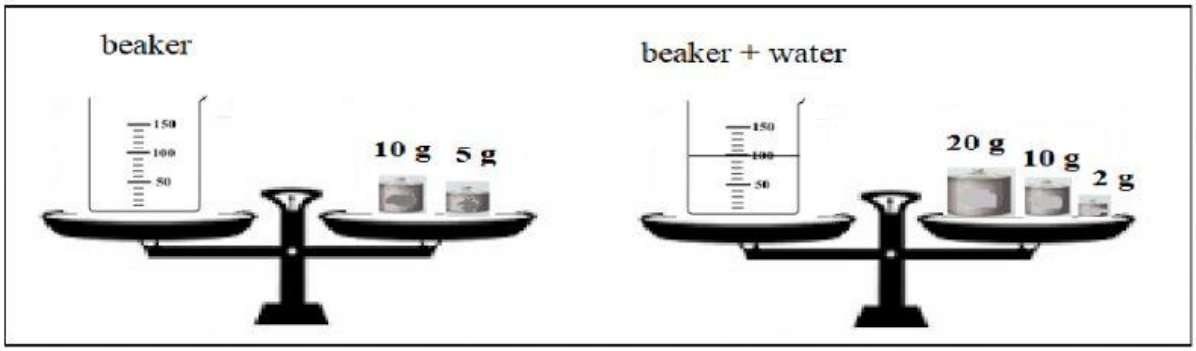
Exercise 3: Observe the following document then answer the questions that follows:

1. Name of the measuring tool used.
   e. Thermometer
   f. Graduated cylinder
   g. balance



2. Record the volume of water.
   a. 30 cm
   b. 30 mL
   c. 30 g
3. Define volume
   a. It is the amount of matter.
   b. The space an object covers.

Exercise 4: Observe the following document; then answer what follows.



Fill in the table below.

Mass of the beaker	Mass of the beaker and water	Mass of the water	Volume of water
15 g	30 g	10 g	100 mL
5 g	32 g	17 g	150 mL