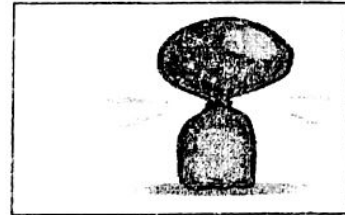
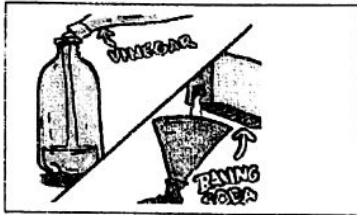


**Part One : Reading and Interpreting (15pts)**

*Read the text carefully then do the activities*



Using items **that** are easily found at home, you can blow up a balloon without using your mouth or your own breath! This isn't magic; it's science! If you want to try it, head to the kitchen, grab some baking soda, vinegar, an empty bottle, a balloon, and a small funnel, and use a classic chemical reaction to inflate a balloon. We call this experiment: the fizz inflator.

To start, carefully pour the vinegar into the bottle. Then, loosen up the balloon by stretching it a few times and use the funnel to fill it a bit more than halfway with baking soda. If you don't have a funnel you can make **one** using paper and some tape. Now carefully put the neck of the balloon all the way over the neck of the bottle without letting any baking soda into the bottle. Lift the balloon so that the baking soda falls from the balloon into the bottle and mixes with the vinegar. In few seconds, you will notice that it blows up.

The science behind this is really simple. If you mix baking soda and vinegar, they create a chemical reaction and the **two** produce a gas ( $CO_2$ ). Gasses need a lot of room to spread out and the carbon dioxide starts to fill the bottle and then moves into the balloon to inflate it.

**A/ Comprehension:(08pts)**

**1-The text is about.....(0.5 PT)**

- a) A scientific experiment b) A discovery c) A magic trick

**2- Are the following statements true or false according to the text? (2PTS)**

- a. The fizz inflator experiment can only be conducted in the laboratory.....  
b. The balloon should be filled with vinegar.....  
c. When you mix the two chemicals, they produce oxygen.....  
d. The balloon takes only a few seconds to inflate.....

**3- In which paragraph are each of these given?(1 PT)**

- a. The explanation of the results of the experiment.....  
b. The steps of the experiment.....  
c. The materials needed to conduct the experiment.....  
d. The results of the experiment.....

**4- Answer the following questions according to the text.(3 PTS)**

- a. What are the materials used in this experiment?

b. Are you obliged to use your mouth in this experiment .justify .

C.What causes the balloon to inflate?(briefly).

5-what do the underlined words refer to in the text:(1.5pt)

a) that (§1) ..... c) one (§2) ..... b) Two (§3) .....

B/ Text Exploration:(07pts)

1-Find in the text words that are opposite in meaning to the following. (1.5 pts)

a) full (§1) ≠ ..... b) to deflate (§3) ≠ .....

2-Complete the following table(1.5pts):

verb	noun	adjective
.....	reaction	.....
.....	.....	mixed
to create	.....	.....

3- Put the verbs between brackets in their correct forms.(3 PTS)

- a) If we (inoculate) ..... a patient with a vaccine, he (to develop) ..... some immunity against disease.
- b) If she (do not/to eat) ..... healthy food, she (to have) ..... several diseases.
- c) If you (to put) ..... ice cubes in water, they (to melt).....

4. Fill in the gaps with the following words:(1PT)

moves - happens - energy - flow

Electricity is a type of ..... that can build up in one place or ..... from one place to another. When electricity gathers in one place it is known as static electricity. But when it ..... it is called current electricity. Static electricity often ..... when you rub things together.

**PART TWO: Written Expression Choose ONE of the following topics: (05points)**

**Topic One:** Al Khwarizmi is regarded as one of the most famous scientists of the Islamic Golden Age. Using the following notes, write a biography about him.

- Persian mathematician, astronomer, astrologer, geographer
- born in Persia around 780
- lived in Baghdad / worked at the "House of Wisdom" (Dār al-ʿIlkma)
- made contributions (mathematics, astronomy, geography...)
- books (*On Algebra*/*Hisâb al-Jabr wa'l-Muqâbala* / *Kitâb Sûrat al-Ard*...)
- died in 850

**Topic Two:** Suppose that you are in a dilemma and you cannot choose between your studies and working for your poor family .write a letter to agony aunt in which you seek for advice.