

Name _____

Period _____ Date _____

WHAT'S IN THE BUBBLES?

1. Make a list of the gases you know about or have heard about.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. How would you define *gas*?

3. Everything is made of elements. What *elements* could be in the gas that forms when sodium bicarbonate (NaHCO_3) and citric acid ($\text{C}_6\text{H}_8\text{O}_7$) react?

4. What gas do you think is in the bubbles that form when NaHCO_3 and $\text{C}_6\text{H}_8\text{O}_7$ react?

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DISCUSS AIR AS PARTICLES

1. What is the air in the syringe and the air in the bubble made of?

2. What happens to the air particles in the syringe when you push on the plunger?

3. What happens to the air particles in the bubble when you pull up on the plunger?

4. Are there more air particles in the bubble when it is compressed or when it is expanded?

5. When you push on the plunger, are the air particles closer together in the syringe or in the bubble?

6. What is between air particles?

7. What happens to air particles when a volume of air is compressed?

When a volume of air expands?

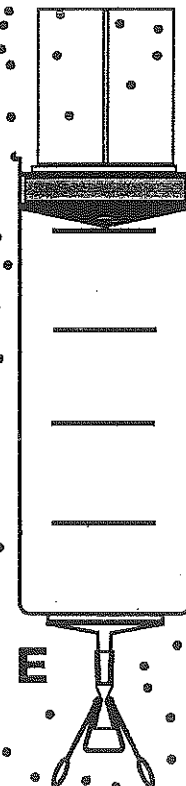
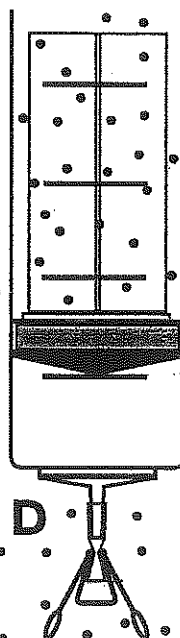
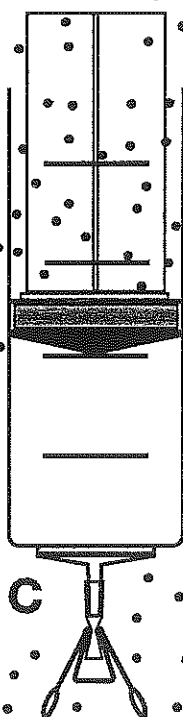
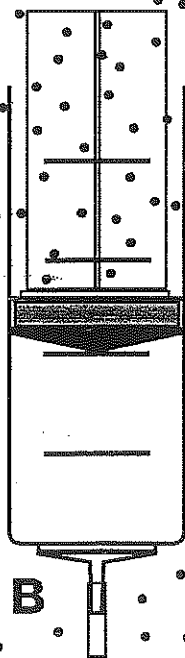
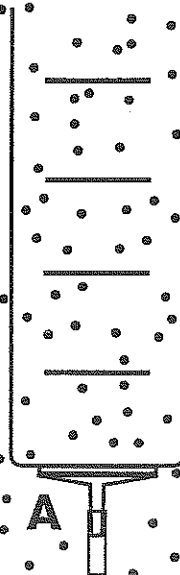
AIR IN A SYRINGE A

A student had a syringe barrel. She drew a picture (A) of her idea of how air filled the room and the syringe.

She put the plunger into the barrel (B) and then clamped the syringe shut (C).

She pushed the plunger down (D) and pulled the plunger up (E).

Draw air particles in syringes B-E.



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AIR IN A SYRINGE B

1. Why did you draw the particles in syringe B the way you did?

2. Why did you draw the particles in syringe C the way you did?

3. Why did you draw the particles in syringe D the way you did?

4. Why did you draw the particles in syringe E the way you did?

5. What happens to the air particles when air expands?

6. What happens to the air particles when air is compressed?
