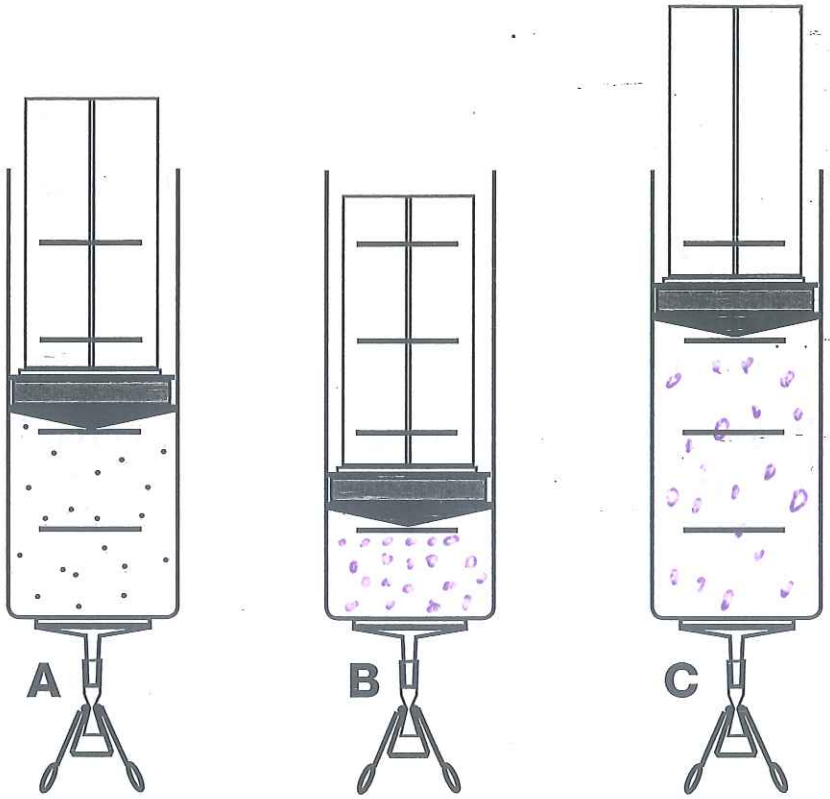
Name _____

MID-SUMMATIVE EXAM 3

Period _____ Date _____

8. Jessie trapped air inside a syringe (illustration A). She pushed the plunger down (illustration B) and then pulled the plunger up (illustration C).



a. Draw the air particles inside the syringes in illustrations B and C.

b. Explain why you drew the air particles in the syringes the way you did.

Syringe B Same # of particles just closer

Syringe C Same # of particles farther apart

c. What is between the air particles in

Syringe A nothing

Syringe B nothing

Syringe C nothing

9. Berto was investigating air in a syringe. He compressed the air by pushing the plunger in as far as he could and then let go. The plunger returned to its original position.

   a. Why didn't the air remain compressed?
   (Circle the one best answer.)

   A. More air particles rushed into the syringe and pushed the plunger up.

   B. The air particles outside the syringe pulled the plunger up.

   C. The air particles inside the syringe pushed the plunger up.

   D. The air inside tried to get out.

   b. Explain why you chose this answer.

particles always moving → bump into each other & expand when able

10. a. What is between the helium particles in a helium-filled balloon?

nothing, space

   b. Can helium be compressed? yes

   Why or why not? gas → can be compressed

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11. a. What is a particle?

Smallest piece of any substance

b. Describe the motion of air particles inside a ball.

moving & bumping to each other & surface of the ball

12. Tyler put a cube of blue closed-cell foam in a syringe and clamped the end closed. When he pushed the plunger down, the cube got smaller.

a. Explain what happened to the particles *outside* the cube.

the plunger pushed away the air into a smaller space (compressed)

b. Explain what happened to the particles *inside* the cube.

compressed → cube got smaller