



This worksheet is an alternative for your changes of state project. There are 8 different changes of state and each is worth 14 points, for a maximum of 80 points. When are you done checking your answers, select Email my answers to my teacher, and fill out the information below.

What do you want to do?



Check my answers



Email my answers to my teacher

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Enter your full name:

**Choose a period** Group/level:

School subject:

**Choose a key code** Enter your teacher's email or key code:

(if you're in Mr. Foster's class)  
 (if you're in Mrs. O'Keeffe's class)

### Example: Leaving an Ice Cube on the Counter

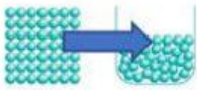
**Spelling Matters! Write your answer exactly how you see it in the parenthesis!**



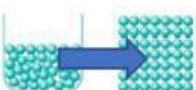
When you leave an ice cube on the counter it will **melt**.

1. The ice cube changes from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
2. The particles will \_\_\_\_\_ (speed up, slow down)
3. The particles will \_\_\_\_\_ (get closer together, get farther apart)
4. The particles will \_\_\_\_\_ (gain energy, lose energy)
5. Which model shows what is happening during this change of state?


a.



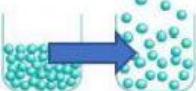
b.




c.




d.



e.



f.

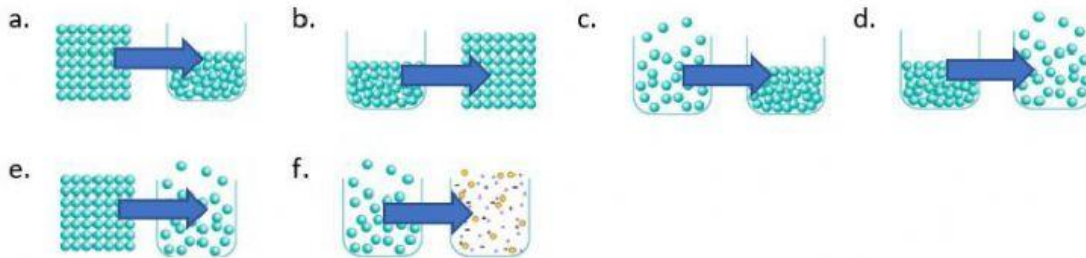


**Example: Putting water in the freezer**



When you put water in the freezer it will **freeze**

6. The water changes from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
7. The particles will \_\_\_\_\_ (speed up, slow down)
8. The particles will \_\_\_\_\_ (get closer together, get farther apart)
9. The particles will \_\_\_\_\_ (gain energy, lose energy)
10. Which model shows what is happening during this change of state?

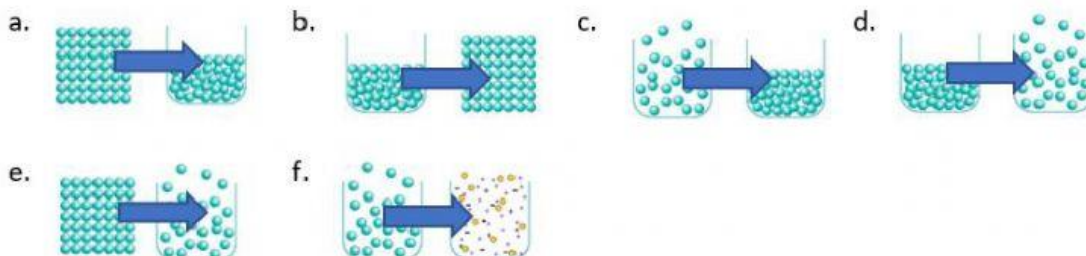


**Example: heating up water to make Raamen Noodles**



When you heat up the water on the stove it will **boil**

11. The water changes from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
12. The particles will \_\_\_\_\_ (speed up, slow down)
13. The particles will \_\_\_\_\_ (get closer together, get farther apart)
14. The particles will \_\_\_\_\_ (gain energy, lose energy)
15. Which model shows what is happening during this change of state?

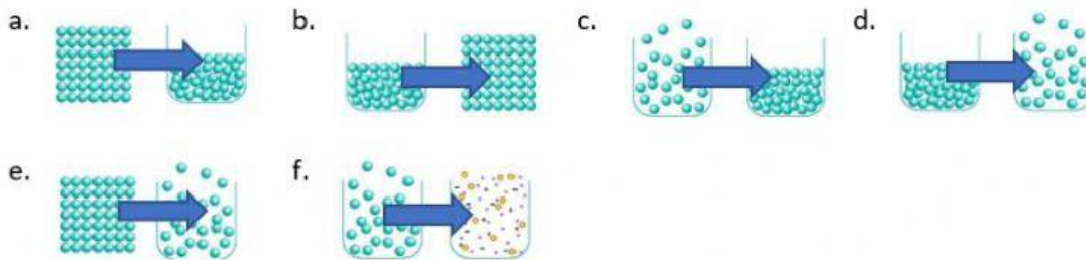


**Example: Dew is on the grass in the morning**



The dew on the grass appears because of **condensation**

16. The water vapor in the air changes from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
17. The particles will \_\_\_\_\_ (speed up, slow down)
18. The particles will \_\_\_\_\_ (get closer together, get farther apart)
19. The particles will \_\_\_\_\_ (gain energy, lose energy)
20. Which model shows what is happening during this change of state?

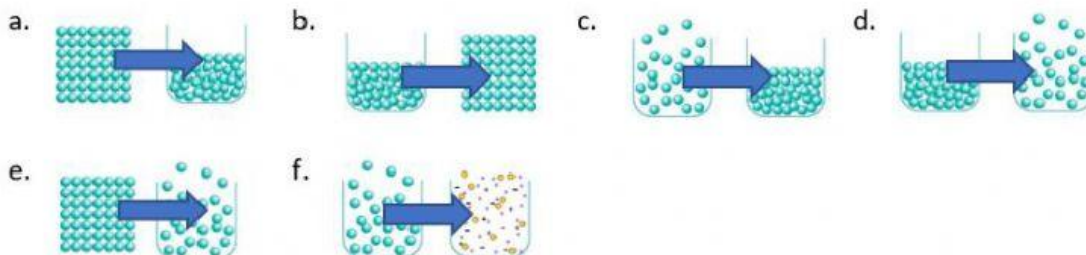


**Example: dry ice**



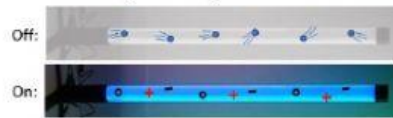
Solid carbon dioxide is also known as dry ice. When you leave it out in a room it will experience **sublimation**

21. The carbon dioxide in dry ice will change from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
22. The particles will \_\_\_\_\_ (speed up, slow down)
23. The particles will \_\_\_\_\_ (get closer together, get farther apart)
24. The particles will \_\_\_\_\_ (gain energy, lose energy)
25. Which model shows what is happening during this change of state?



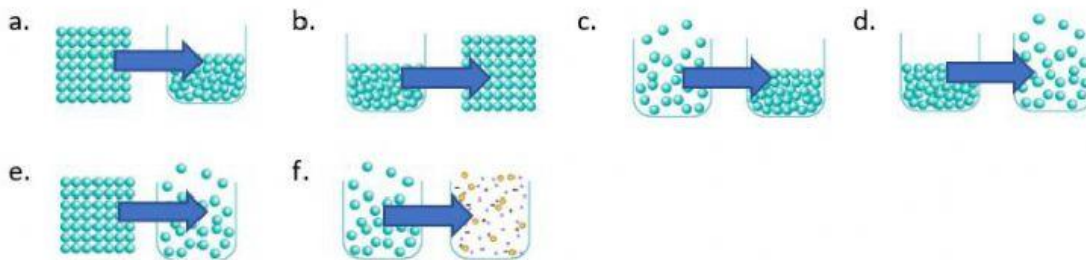


### Example: Neon Lights



The tubes are filled with gas particles. When you add energy in the form of electricity the gas particles will **ionize**

26. The particles will change from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
27. The particles will \_\_\_\_\_ (speed up, slow down)
28. The particles will \_\_\_\_\_ (get closer together, get farther apart)
29. The particles will \_\_\_\_\_ (gain energy, lose energy)
30. Which model shows what is happening during this change of state?

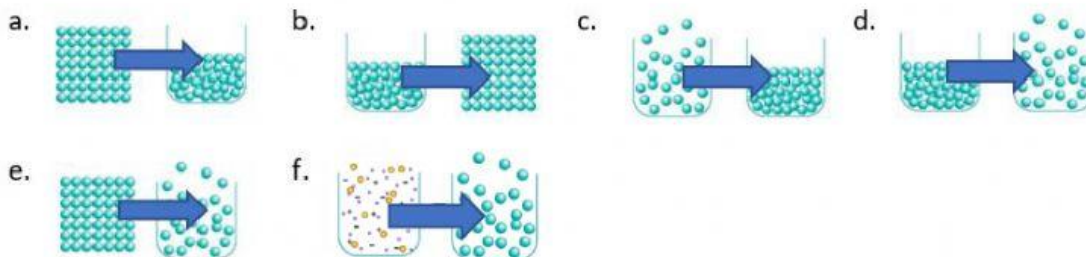


### Example: Lightning Strike



After a lightning strike, the positive and negative ions that make up the plasma will **recombine**

31. The particles will change from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
32. The particles will \_\_\_\_\_ (speed up, slow down)
33. The particles will \_\_\_\_\_ (get closer together, get farther apart)
34. The particles will \_\_\_\_\_ (gain energy, lose energy)
35. Which model shows what is happening during this change of state?



Example: frost forming on leaves



White frost covering cold surfaces is because of **deposition**

36. The particles will change from a \_\_\_\_\_ (solid, liquid, gas, plasma) to a \_\_\_\_\_ (solid, liquid, gas, plasma)
37. The particles will \_\_\_\_\_ (speed up, slow down)
38. The particles will \_\_\_\_\_ (get closer together, get farther apart)
39. The particles will \_\_\_\_\_ (gain energy, lose energy)
40. Which model shows what is happening during this change of state?

