

Ch. 23 Guided Reading (Change of Phase p. 339)

Name _____ Block _____ Date _____

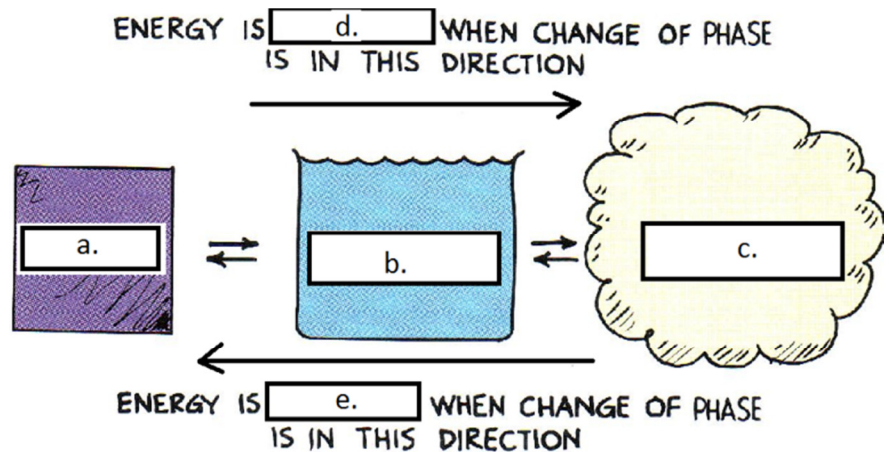
1. What are the three common phases that matter can exist in? 1) _____ 2) _____ 3) _____
2. The phase of matter depends on the _____ and _____ pressure exerted upon it.
3. A change of phase usually involves a _____ of _____.
4. What is the change of phase from a liquid to a gas that takes place *at the surface* of the liquid? _____
5. What is a vapor? _____
6. Evaporation is a (circle one: *cooling* or *warming*) process.
7. The process of gas changing to a liquid is called _____. (The opposite of evaporation.)
8. Condensation is a (circle one: *cooling* or *warming*) process.
9. Warm air rises, and as it rises, it _____, and as it expands, it _____.
10. Explain fog and clouds:

11. Evaporation and condensation typically take place at the same time, they have cancelling effects and are said to be in _____, or a state of balance.
12. What is the change of phase from a liquid to a gas that takes place *beneath the surface* of the liquid? _____
13. What happens to the boiling point of water at a higher altitude in places like Denver, Colorado?

14. When matter changes from a liquid to a solid, it is called _____.
15. What happens to the freezing temperature of water if there is salt or sugar dissolved in the water?

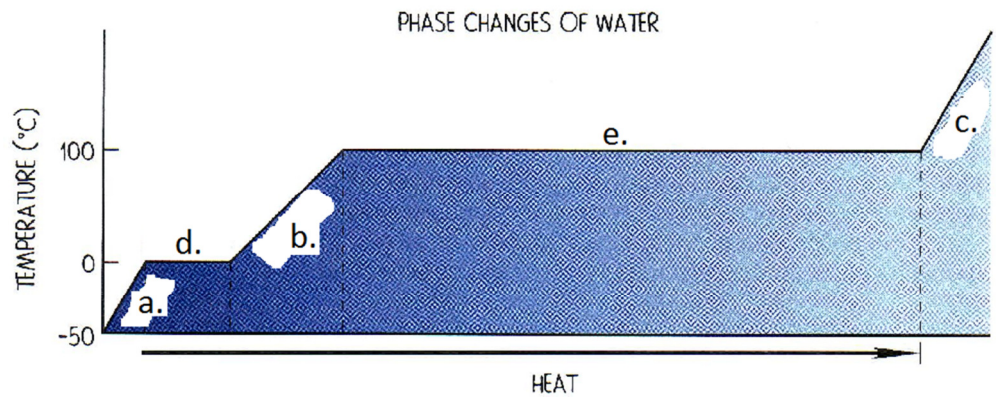
16. Use the diagram at the right to complete the blanks (p 347):

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____



17. Label the diagram to the right with terms about the phase change of water (p 348):

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____



18. The energy required for vaporization or condensation is known as the heat of _____ of water. This is the amount of energy needed to be absorbed or released *to change phase without changing the temperature of the water.*

19. The energy required for melting or freezing is known as the heat of _____ of water. This is the amount of energy needed to be absorbed or released *to change phase without changing the temperature of the water.*

(For 18-19 look at the footnote on pg 347)