

CHAPTER 18 REVIEW

NAME _____

1) Define precipitation - _____

MATCHING:

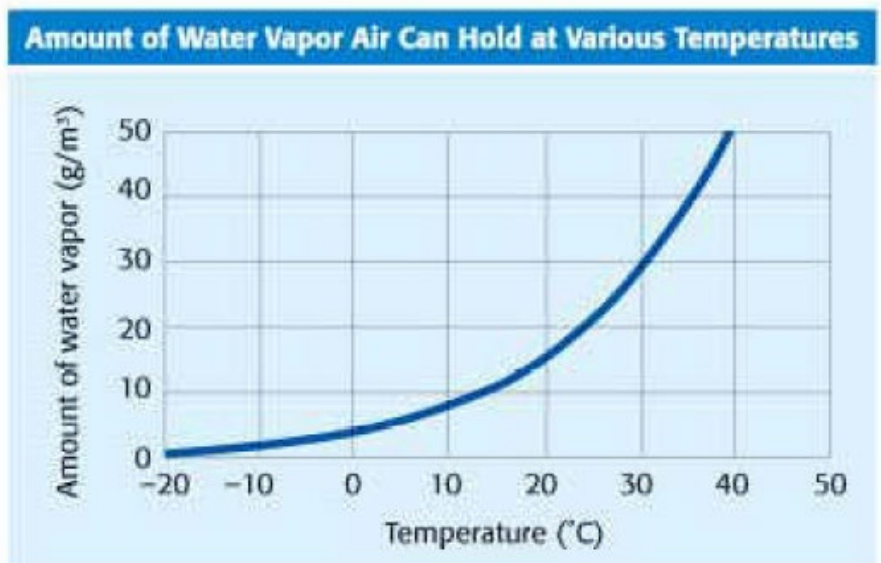
2)		MELTING	A	solid directly to gas (heat absorbed) (ex. Snowbanks shrink even if there is no melting)
3)		FREEZING	B	solid to liquid (heat absorbed)
4)		EVAPORATING	C	gas to liquid (heat released)
5)		CONDENSING	D	gas directly to solid (ex. water vapor turns into snowflakes)
6)		SUBLIMATING	E	liquid to gas (heat absorbed)
7)		DEPOSITING	F	liquid to solid (heat released)

8) Define humidity - _____

Calculate the relative humidity

RELATIVE HUMIDITY FORMULA:
$$\frac{\text{actual amount of water vapor}}{\text{amount of water vapor the air can hold}} \times 100$$

9) 30deg & 15 g/m ³ ____% humidity
10) 20deg & 15 g/m ³ ____% humidity
11) 40deg & 40 g/m ³ ____% humidity
12) 40deg & 10 g/m ³ ____% humidity



13) What term do we use to say that the air is completely filled with water?

14) What is the temperature needed to condense water vapor into water droplets?

15) What are 2 tools used to measure humidity? Which one is digital?

16) If air is compressing, what is happening to the molecules?

17) If air is expanding, what is happening to the molecules?

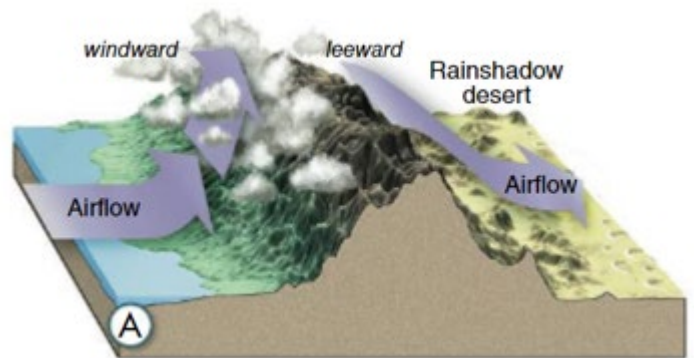
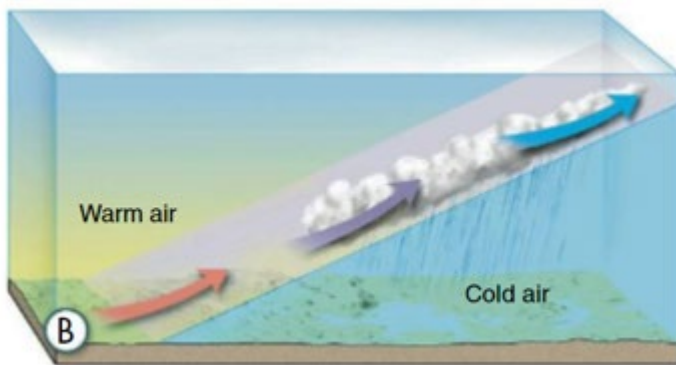
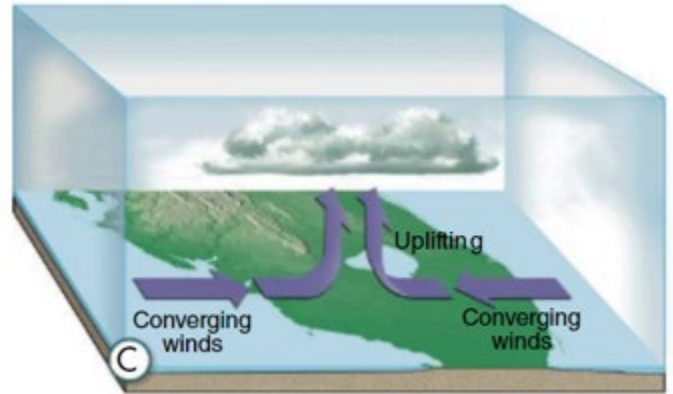
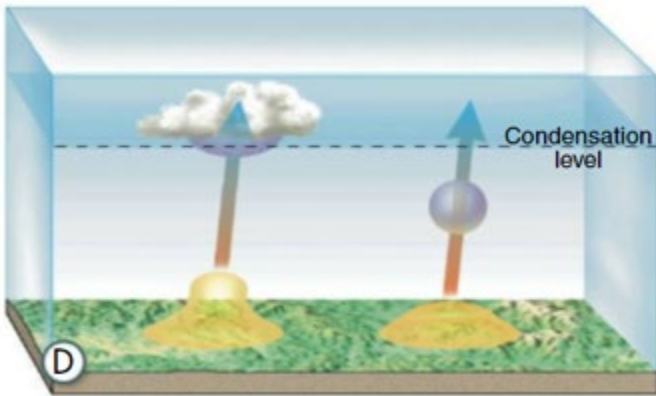
18) If air rises, will it expand or compress?

19) If air expands, does the temperature increase or decrease?

20) What is it called when air rises, then expands, then cools down?

21) What is it called when air sinks, then compresses, then heats up?

22) Label each of the pictures, then answer questions about them.



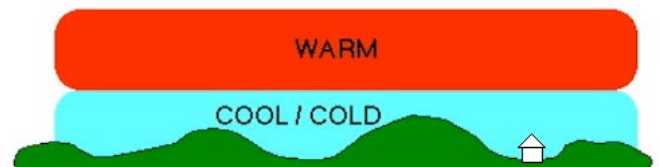
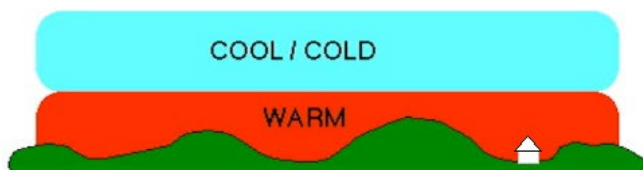
23) Which air lifting process happens 2 air masses collide and then move upward?

24) Which air lifting process lifts air with the help of a mountain?

25) Which air lifting process happens due to unequal heating of the earth?

26) Which air lifting process involves a warm air mass rising up over top of a cold air mass?

27) Which picture shows stable air? Unstable air?



- 28) A cloud is water floating in the sky. We would describe it as condensation. Is condensation gaseous or liquid?
- 29) If you want condensation to occur, what must happen to the air?
- 30) What makes water molecules slow down so they can finally collide with each other?
- 31) If tiny water droplets coalesce, what will gravity be able to do?
- 32) What do water molecules stick to? (what is at the center of every raindrop/ snowflake?)
- 33) What are the 2 ways we classify clouds?
- 34) Which cloud type is made of ice crystals? (even in summer)
- 35) Which cloud type is flat and layered and can cover the whole sky?
- 36) Which cloud type looks like cauliflower?
- 37) Which cloud term describes middle level clouds?
- 38) What is the highest type of cloud?
- 39) What 2 things can you tell from the cloud name cumulonimbus?
- 40) What 2 things can you tell from the cloud name altostratus?
- 41) What 2 things can you tell from the cloud name cirrocumulus?

MATCH THE PRECIPITATION TYPES:

42)	Drizzle	A	Rain that falls through a freezing layer forming ice particles
43)	Rain	B	Snow pellets that look like dipping dots
44)	Sleet	C	Solid formed directly from water vapor
45)	Glaze	D	Ice pellets that have been lifted over and over forming layers of ice
46)	Hail	E	large condensation droplets (at least .5 mm)
47)	Snow	F	Freezing rain
48)	Graupel	G	Tiny condensation droplets (smaller than .5m)

49. If a cold cloud is going to make precipitation, what process occurs? _____

50. Describe the Bergeron process _____

51. If a warm cloud is going to make precipitation, what process occurs? _____

52. Describe the collision- coalescence process _____
