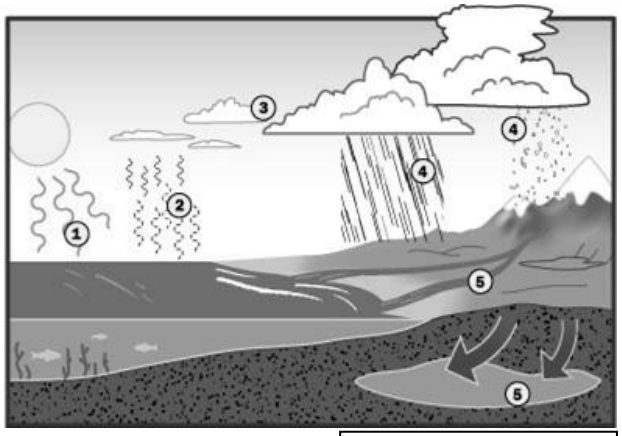
Name _____ Date _____ Page _____

Water Cycle Quiz Practice

Fill-in-the-Blank – Write the letter for each term from the word bank that best completes each statement. Each word is only used once.



Word Bank

A. evaporation
B. relative humidity
C. heat
D. precipitation
E. dew point
F. condensation
G. humidity
H. sling psychrometer
I. transpiration
J. run-off
K. infiltration
L. cloud

_____ 1. _____ is the type of energy that causes water to begin evaporation. It is represented by the number 1 in the illustration.

_____ 2. _____ is the phase in the water cycle when water turns from liquid to a gas and enters the air. It is represented by the number 2 in the illustration.

_____ 3. _____ is produced when water vapor condenses onto dust and other particles high in the atmosphere where temperatures are colder. It is represented by the number 3 in the illustration.

_____ 4. _____ is the phase in the water cycle when water returns to Earth's surface in frozen or liquid form. It is represented by the number 4 in the illustration.

_____ 5. _____ is the water that moves over ground after snow melt and precipitation or from underground sources. It is represented by the number 5's in the illustration.

_____ 6. _____ is the phase in the water cycle when water turns from a gas to a liquid and collects to dust particles creating clouds.

_____ 7. _____ is the evaporation of water from plants.

_____ 8. _____ is the phase of the water cycle when water from rain and snow melt soaks into the ground.

_____ 9. _____ is moisture in the air.

_____ 10. _____ is the temperature at which water condenses. It most typically occurs in the morning hours after the air temperature has cooled over night.

_____ 11. We use the term _____ to compare how much moisture is in the air compared to how much moisture the air can hold at a particular temperature.

_____ 12. A _____ is a tool used to measure relative humidity. It is made up of wet- and dry-bulb thermometers.

Multiple Choice

_____ 13. Colder air….

a. Can hold more water vapor than warm air
b. Can hold less water vapor than warm air
c. And warm air have the same ability to hold water vapor
d. Cannot hold any water vapor

_____ 14. The water cycle is driven by energy from

a. The moon
b. The oceans
c. The Sun
d. Earth's core

_____ 15. When water condenses on the outside of a glass, where does the water come from?

a. The water in the glass
b. The ice in the glass
c. New water is invented
d. Water from the air around the glass

Using a Chart – Use the chart below to answer questions #16.

16. Two thermometers were used to measure relative humidity and the bulbs showed the following readings; determine the relative humidity.

dry bulb: 26°C
wet bulb: 20°C

relative humidity: _____%

Extra Credit: (A total of 3 points is possible and you must <u>show your calculations</u>!) You will not lose points if you are incorrect so, it's worth a shot!

	Relative Humidity Chart (%)														
Temp Dry Bulb (°C)	Difference Between Dry Bulb and Wet Bulb Temperatures (°C)														
	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
2	84	68	52	37	22	8									
4	85	70	56	42	29	26	3								
6	86	73	60	47	34	22	11								
8	87	75	63	51	39	28	18	7							
10	88	76	65	54	44	33	23	14	4						
12	89	78	67	57	47	38	29	20	11	3					
14	89	79	69	60	51	42	33	25	17	9					
15	90	80	71	62	54	45	37	29	22	14					
18	91	81	73	64	56	48	41	33	26	19	6				
20	91	82	74	66	58	51	44	37	30	24	11				
22	91	83	75	68	60	53	46	40	34	27	16	5			
24	92	84	76	69	62	55	49	43	37	31	20	9			
26	92	85	77	70	64	57	51	45	39	34	23	14	4		
28	92	85	78	72	65	59	53	47	42	37	26	17	8		
30	93	86	79	73	67	61	55	49	44	39	29	20	12	4	
32	93	86	80	74	68	62	56	51	46	41	32	23	15	8	1
34	93	87	81	75	69	63	58	53	48	43	34	26	18	11	5
36	93	87	81	75	70	64	59	54	50	45	36	28	21	14	8
38	94	88	82	76	71	65	60	56	51	47	38	31	23	17	11
40	94	88	82	77	72	66	62	57	52	48	40	33	26	19	13
42	94	88	83	77	72	67	63	58	54	50	42	34	28	21	16
44	94	89	82	78	73	68	64	59	55	51	43	36	29	23	18

A dry bulb reading on thermometer read 30°C. A student then calculated the relative humidity to be 73%.

_____ a) For 1 point, determine the wet bulb reading.

_____ b) For 1 point, convert the dry bulb reading to °Fahrenheit. The conversion formula is:

$$F = \frac{9}{5}C + 32$$

c) For 1 point, complete the following: If the amount of water vapor in the air stays the same and the air temperature decreases, the relative humidity will **<u>increase/decrease/stay the same/not be affected.</u>** (Circle the word or phrase that makes the statement true.)