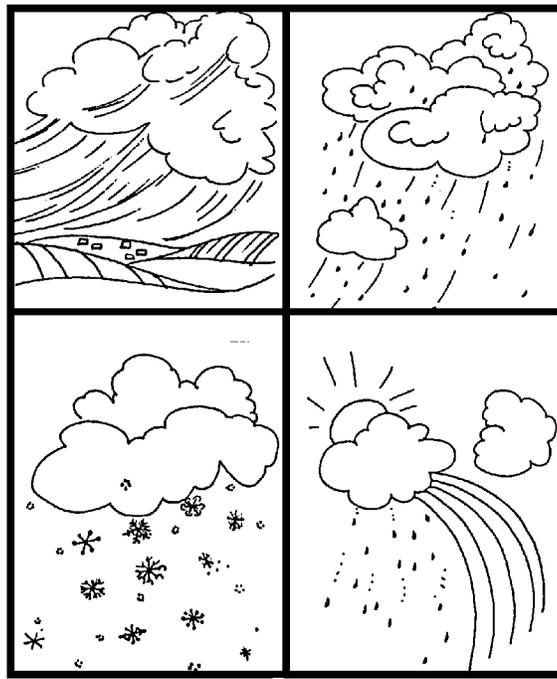


Water Cycle

The Earth's Gift



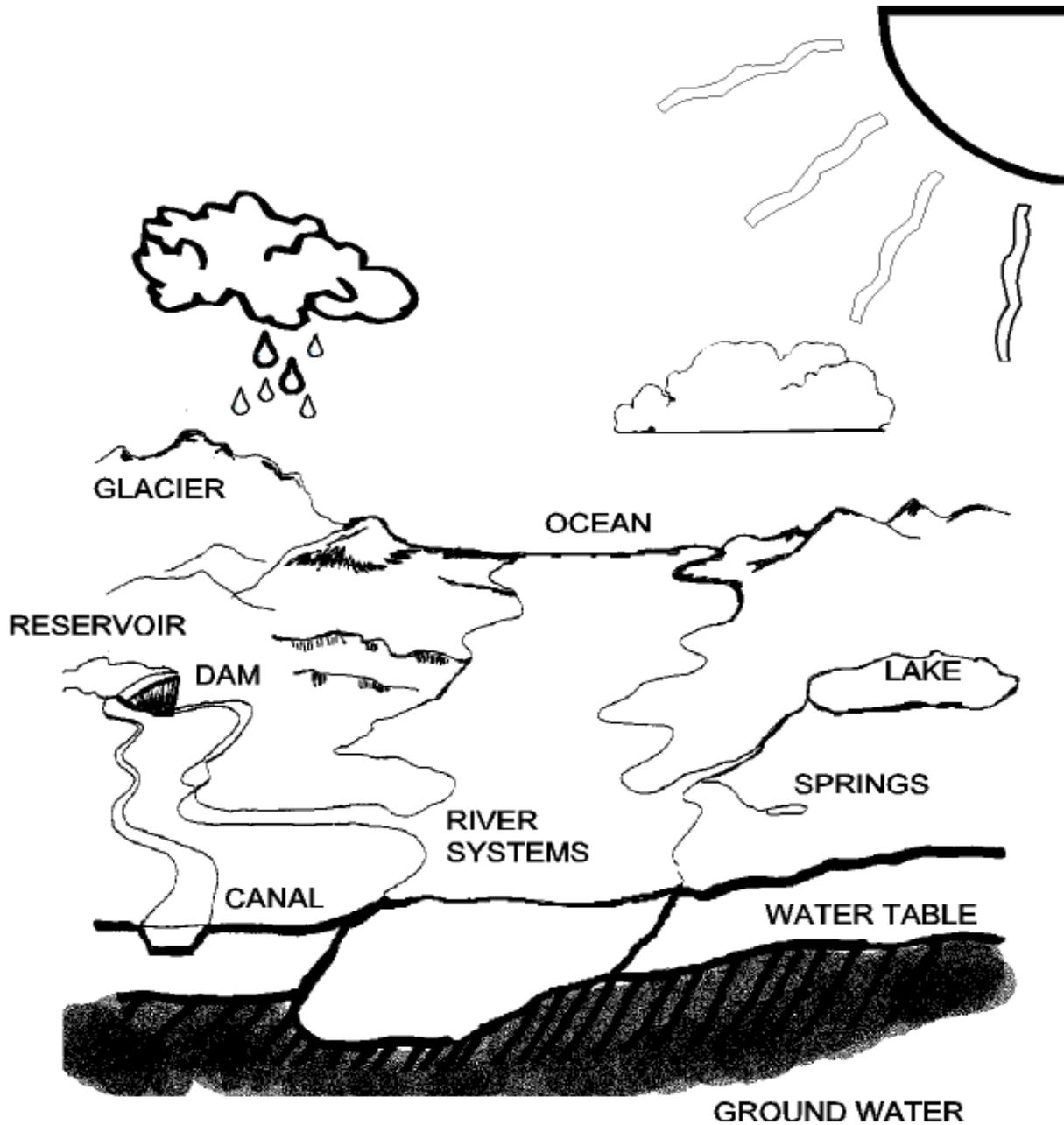
THIRD GRADE WORKBOOK



student _____

WATER CYCLE - WATER (3)
PRE

LABEL THE FOLLOWING:EVAPORATION, CONDENSATION, and PRECIPITATION
Show the movement of water by using an arrow to show direction.

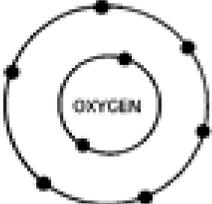


WATER CYCLE - WATER (3)

PROBLEM: How does water differ from hydrogen peroxide?

PREDICTION: _____

EXERCISE I. Draw a hydrogen and an oxygen atom in the boxes below

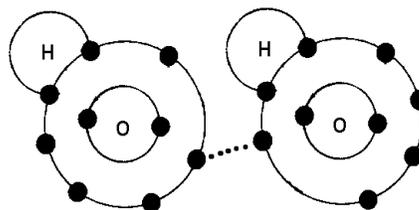
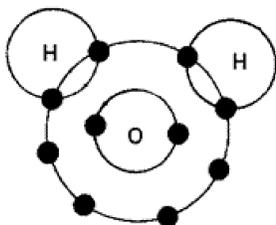
 <p>A diagram of a hydrogen atom consisting of a central circle labeled "HYDROGEN" with a single black dot (proton) inside and another black dot (electron) on the outer boundary.</p>	 <p>A diagram of an oxygen atom with a central circle labeled "OXYGEN" containing eight black dots (protons). It has two concentric circles representing electron shells. The inner shell contains two black dots (electrons), and the outer shell contains six black dots (electrons).</p>
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EXERCISE II. Look at both the water and the hydrogen peroxide and compare.

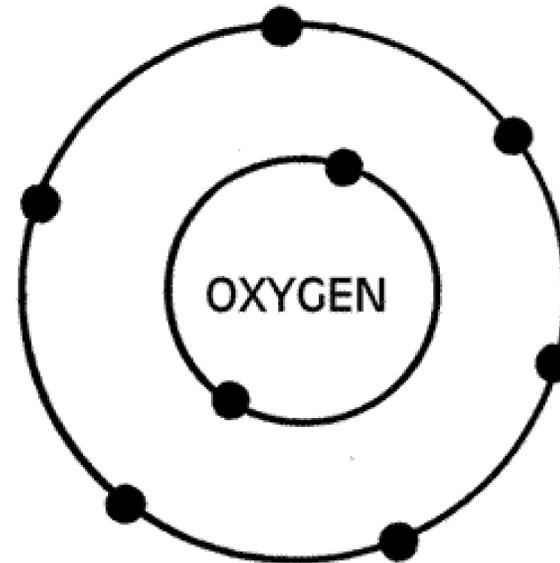
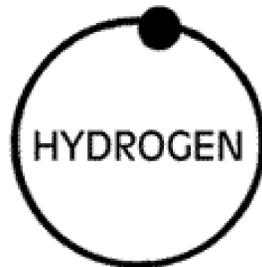
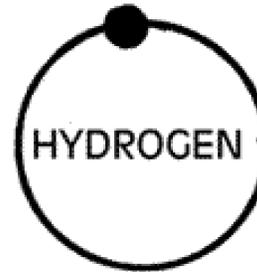
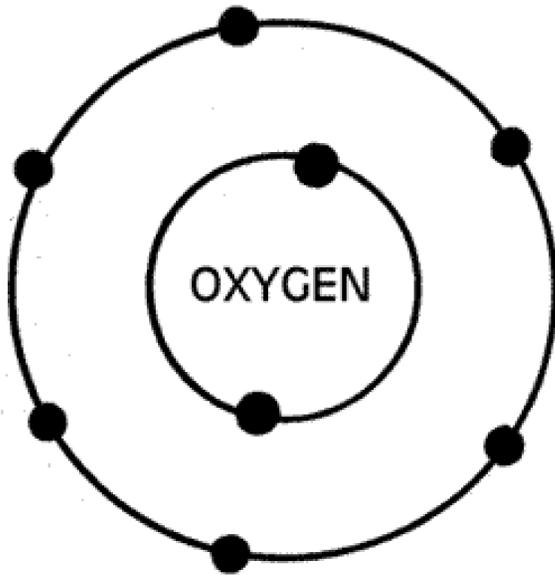
	WATER (H ₂ O)	HYDROGEN PEROXIDE (H ₂ O ₂)
Smell		
Reaction with meat		
Feel		

EXERCISE III. See if you can construct an atomic model of both water (H₂O) and hydrogen peroxide (H₂O₂) using the enclosed sheets. Cut them out and following the information below. *RULE: OUTER SHELL MUST HAVE ONLY 8 ELECTRONS, INNER SHELL MUST HAVE ONLY 2 ELECTRONS. USE ENCLOSED SHEET TO HELP.*

CLUE:

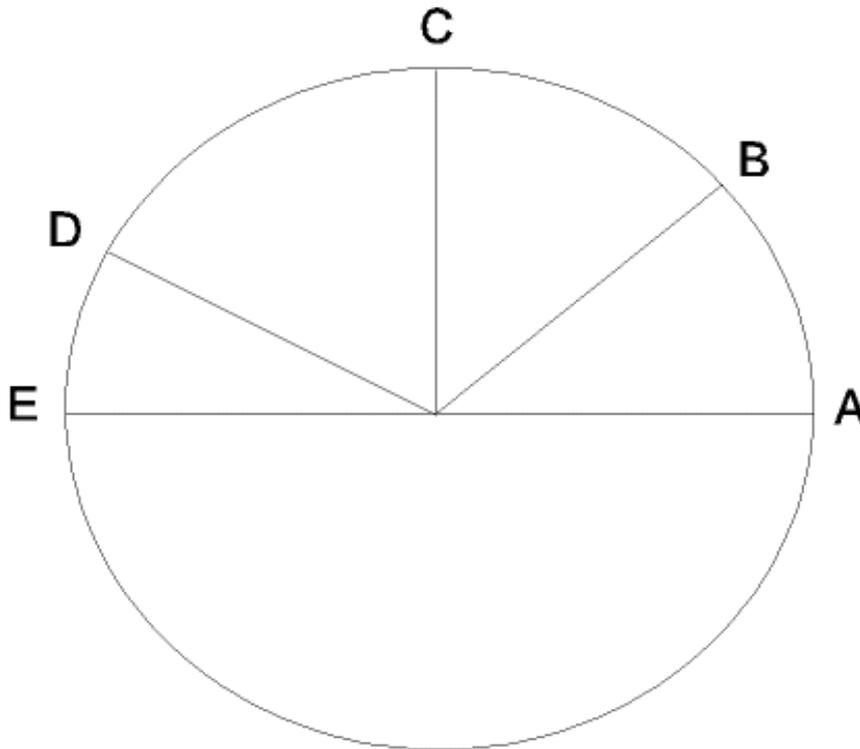
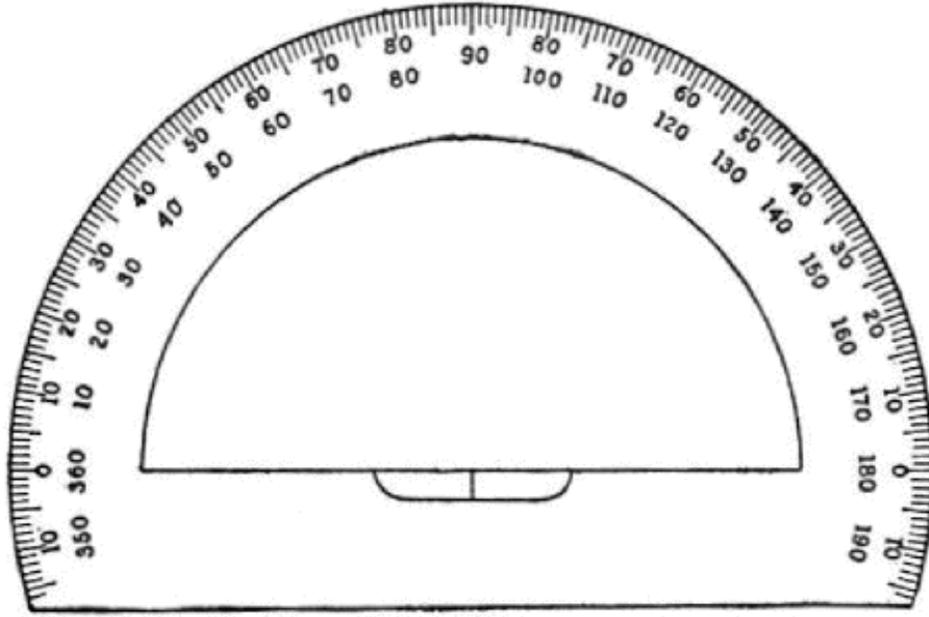


WATER CYCLE - WATER (3)



WATER CYCLE - WATER (3)

protractor



WATER CYCLE - OCEANS (3)



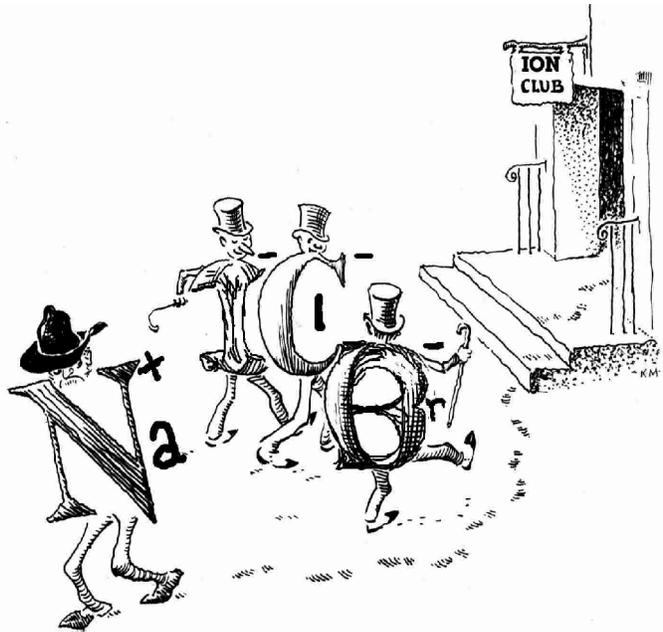
Draw a picture of a water molecule.

COVALENT BOND

COVALENT BOND

IONIC BOND

IONIC BOND



WATER CYCLE - OCEANS (3)

PROBLEM: Why are the oceans salty?

PREDICTION: _____

PROCEDURE:

MATERIALS: salt, sand, sugar, baking soda, epsom salt, mud, measuring spoons, beakers, warm water

In a beaker measure 100 ml of water. Then stir in 1 ml of one item, first in cold water than warm. Record what happens in the data chart below. Then dispose of the materials as instructed by your teacher.

	COLD	WARM
salt		
sand		
sugar		
baking soda		
epsom salt		
mud		

CONCLUSION: What substances dissolved the fastest?

Can you figure out why the ocean is salty and not sweet?

WATER CYCLE - OCEANS (3)



A



B



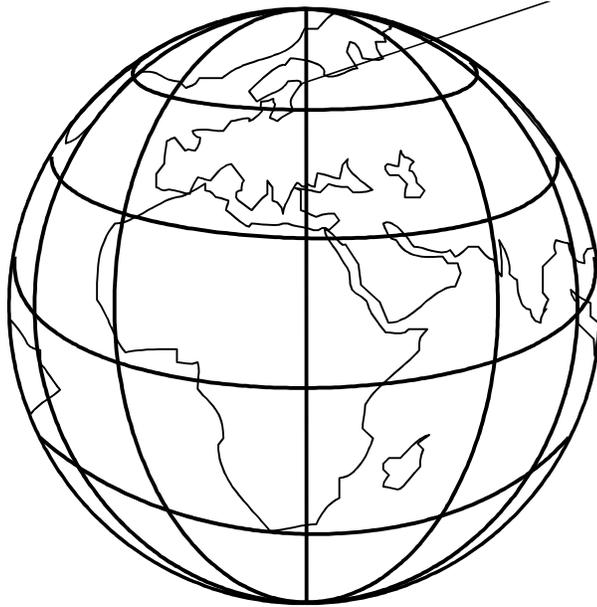
C



D

WATER CYCLE - ATMOSPHERE (3)

LABEL THE HYDROSPHERE, LITHOSPHERE, AND ATMOSPHERE. COLOR. MAKE A LEGEND.



	COMPOSITION	IMPORTANCE
ATMOSPHERE		
HYDROSPHERE		
LITHOSPHERE		

WATER CYCLE - ATMOSPHERE (3)

PROBLEM: What shapes do bubbles take?

PREDICTION: _____

PROCEDURE:

MATERIALS: different shapes of bubble makers (triangle, square, round, trumpet)

1. Construct a triangle, square, and round wire bubble maker, then make a shape of your choice.
2. Using the bubble makers blow some bubbles and record your results.
3. Draw the type of bubbles in data chart below.

TRIAL NO.	TRIANGLE	CIRCLE	SQUARE	
1				
2				
3				
4				

CONCLUSION: What shape do the bubbles take? Why?

WATER CYCLE - ATMOSPHERE (3) POST

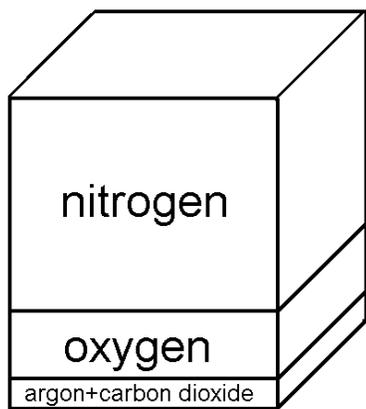
MAIN INGREDIENTS OF AIR

1. Use a periodic table to find the symbols for each of the gases in air. List the ingredients and write the symbol below.

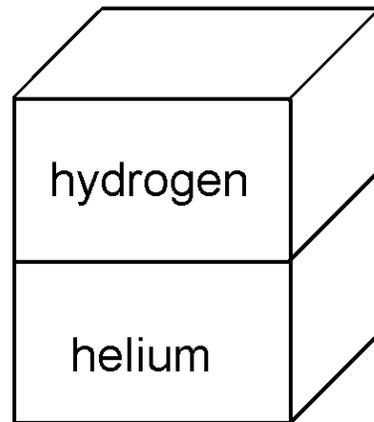
2. Which composition of air do you think is found below 72 km?

Above 800 km? _____

Why? _____



72 km



800 km

WATER CYCLE - WEATHER (3)

Answer the questions below by using the Weather Placemat and/or the Internet. State where you got your answer. Color the pictures.

a. *What is weather?*



b. *How does the Sun affect the weather?*

c. *What makes the wind?*

d. *How does moisture precipitate in the atmosphere?*



WATER CYCLE - WEATHER (3)
LAB

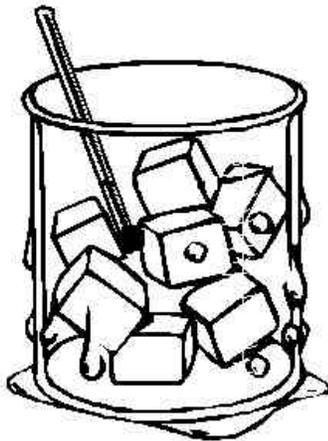
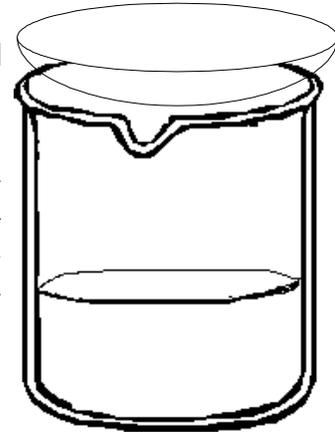
PROBLEM: How does air form water?

PREDICTION: _____

PROCEDURE: After you complete the experiments, draw what happens. Label the diagrams with the following words: evaporation, condensation, precipitation

EXPERIMENT I.

What happens when you put very hot water in a beaker, and then put a watchglass over the beaker?



EXPERIMENT II.

At what temperature did dew form (when sweat formed on the outside of the glass)? Describe what happens?

EXPERIMENT III.

Put in two small scoops of ice and one scoop of salt. Describe what happens. Read the temperature when something happens.

CONCLUSIONS: How can you get water from air?

