

Weather Module Activity Sheet

Name _____ Block _____

Enter Date example: Oct. 25

Session # 1

Module Guide Score = _____ / 10 Date Completed _____
Layers of the Atmosphere Activity Date Completed _____
Weather Measurement Activity Date Completed _____
Assessment Answers Completed in Packet (Pg. 2)... Date Completed _____
Review Game (Bloop or Critter Cross Played) Date Completed _____

Session # 2

RCA 's Score = _____ / 30 Date Completed _____
Check Weather Recordings / Conversions (Pg. 10) Date Completed _____
Light Intensity Activity (Pg. 9)..... Date Completed _____
Assessment Answers Completed in Packet (Pg. 3).. Date Completed _____
Vocabulary Page Completed in Packet (Pg. 5)..... Date Completed _____

Session # 3

RCA's Score = _____ / 30 Date Completed _____
Check Weather Recordings / Conversions (Pg. 10) Date Completed _____
Hydrologic Cycle Activity (Pg. 11)..... Date Completed _____
Technical Writing Page Completed in Packet(Pg. 6) Date Completed _____

Session # 4

RCA's Score = _____ / 30 Date Completed _____
Check Weather Recordings / Conversions (Pg. 10) Date Completed _____
Clouds Activity..... Date Completed _____
Career Sheet Page Completed in Packet (Pg. 7)..... Date Completed _____

Session # 5

RCA's Score = _____ / 30 Date Completed _____
Check Weather Recordings / Conversions (Pg. 10) Date Completed _____
Heat Transfer Activity..... Date Completed _____
Coriolis Force Activity..... Date Completed _____
Word Search Page Completed in Packet (Pg. 8)..... Date Completed _____

Session # 6

Test Review 'Game'..... Date Completed _____
Check Weather Recordings / Conversions (Pg. 10) Date Completed _____
Air Masses and Fronts Activity..... Date Completed _____
Assessment Answers Completed in Packet (Pg. 4).. Date Completed _____
Test Review Page Completed in Packet (Pg. 12) Date Completed _____

Session # 7

Post Test Score = _____ / 100 % ... Date Completed _____
Graph Weather Data Activity..... Date Completed _____
Severe Storms Activity Date Completed _____
Wind Chill and Heat Index Activity Date Completed _____
I Have Inspected My Packet – It is Complete..... Date Completed _____

Weather Vocabulary Worksheet

Please write a definition for each vocabulary term.

1. Hurricane-

2. Lifting-

3. Monsoon-

4. Ridge-

5. Convection-

6. Circulation-

7. Downdraft-

8. Flash flood-

9. Front-

10. Isotherm-

11. Jet stream-

12. Saturation-

13. Dew point-

14. Frost-

15. isobar-

Weather Career Investigation

From the ***Occupational Outlook Handbook*** –Look up the career that is assigned to your module topic. Using the information in the book answer the following question about the assigned career. The career for your module is:

Science Technicians and is on Page 187

1. **Nature of the work** (What does the occupation do?):
 - A.
 - B.
2. **Working conditions** (Ex. inside / outside, clean / dirty, safe / hazardous etc.):
3. **Training or education needed, other qualifications required, and possible advancements / promotions:**
4. **Job Outlook** (In the future, what is the demand / forecast for this job):
5. **Earnings** (What is the average salary / income for this career):
6. **Related occupations** (What other occupations are part of the selected topic):
 - A.
 - B.
7. **Sources of additional information** (Sites, agencies or references to provide more information on your selected occupation):
 - A.
 - B.

Weather WordSearch

L E R I M A L E T O F M R A V E G G Z C
 X G S S H H H S P L J O E A B I G Y C C
 P V Z M S W U L C W I N C N E E T O R G
 E D O E S N L R M I E S G A N I N R C T
 R M X A A Y F H R S S O E F L V C I S N
 M T I K S D H N X I I O D I E P F D E R
 N O I T C E V N O C C N B R A T A G U N
 S M G H V W I P E I M A G A N E H E E C
 E E R E H P H S O M T A N O R M E I S H
 N O I T A R U T A S N A R E N S C I H U
 S Y S T V E R A N C I F L O O D P K O M
 O E E H S D X I E H L S I U S G K E T I
 H I Y G N I T F I L P T O C C L U D E D
 S S E U G C R R S M A E R T S R I A T I
 W V O O R T M T H T B T R E H Q I A E T
 O L M R S I T T S E V R S L N E Z C G Y
 O A S D Y O W V L P T X O O M I R F A A
 T F A R D N W O D R E P A M R A E M E E
 L J O P J A D S F E O H Q O Q F S H E N
 Z X N E S H A S O P P G E T E A Y N M Q

Find the following hidden words:

**hurricane, lifting, monsoon, ridge, convection, circulation,
 downdraft, atmosphere, convergence, flood, front, isotherm,
 occluded, humidity, saturation, isobar, frost, instability, drought,
 dew, airstream, prediction, station, guess**

Light Intensity Log

Worksheet

Student Name: _____ Date: _____

	Area of Light	Intensity of Light
0°		
30°		
45°		

Weather Conversions

Worksheet

Name _____

Date _____

Complete the problem for each session when instructed to do so in the Agent. There is one problem for each of Sessions 2-6.

Session 2

Convert the outside temperature reading (Temp out) from Celsius to Fahrenheit. The conversion formula is: $F = 9/5 C + 32$ or $F = 1.8 C + 32$

Session 3

Convert the rain value (Rain) from millimeters to inches. If the rain value is zero, convert 5 cm (50 mm) to inches and round to the nearest 10th of an inch. The conversion formula is: $1 \text{ in.} = 2.540 \text{ cm}$

Session 4

Convert the barometric pressure reading (Bar) from millimeters (mm) to inches (in.). Round your answer to the nearest 100th of an inch. The conversion formula is: $P_{in} = 0.03937008 \times P_{mm}$

Session 5

Convert the wind speed from meters per second (m/s) to miles per hour (mi/hr). If the wind speed is zero, convert 3.5 m/s. Round your answer to the nearest 10th of a mile. The conversion formula is:

$$1 \text{ mi/hr} = 0.4470 \text{ m/sec}$$

Session 6

Find the difference between the high temperature (Hi temp) and low temperature (Low temp) values for the last complete day. Convert the difference from degrees Celsius to degrees Fahrenheit. The conversion formula is: $F = 9/5 C + 32$ or $F = 1.8 C + 32$

Hydrologic Cycle

Worksheet

Name _____

Date _____

Data

Beginning amount of water: 100 ml

Final amount of water: _____ ml

Difference: _____ ml

Questions

- What is the energy source for your hydrologic cycle? _____
- Which of the following best describes the portion of the hydrologic cycle you just demonstrated?
 - condensation → evaporation → precipitation
 - evaporation → condensation → precipitation
 - transpiration → condensation → runoff
 - evaporation → precipitation → transpiration
- Which aspect(s) of Earth's hydrologic cycle are missing from your model? (Circle all that apply.)

A. precipitation	D. runoff
B. evaporation	E. infiltration
C. transpiration	F. condensation
- Below is a list of components in your model of the hydrologic cycle. Match each component with the factor in Earth's hydrologic cycle that it best represents. Place the letter of the correct match in the blank to the left of the numbered factor in Earth's hydrologic cycle.

A. hot pot
B. large closed container
C. steam from hot pot
D. water droplets on lid
E. water dropping from lid to floor of container

_____	1. clouds
_____	2. atmosphere
_____	3. sunlight (energy source)
_____	4. evaporation
_____	5. rainfall
- The hydrologic cycle is a continuous, dynamic process. Explain how the difference in beginning and final amounts of water demonstrates this process.

WEATHER

Test Review

Circle the correct answers while playing the Review Game at the beginning of Session # 6.

- Which of the following processes occurs in Earth's troposphere?
 - clouds form
 - ozone forms
 - meteors burn up
 - radio waves are propagated
- Which types of light intensity and climate will occur on the part of the Earth that receives sunlight at the most direct angle?
 - highest intensity and warmest climate
 - highest intensity and coldest climate
 - lowest intensity and warmest climate
 - lowest intensity and coldest climate
- Which two processes in the hydrologic cycle are responsible for returning water to the atmosphere?
 - evaporation and condensation
 - evaporation and transpiration
 - transpiration and infiltration
 - condensation and transpiration
- In which of the following processes is water changed from the liquid state to the gaseous state?
 - sublimation
 - deposition
 - evaporation
 - condensation
- Which type of cloud is most likely to produce intense storms and show great vertical development?
 - cumulonimbus
 - stratus
 - nimbostratus
 - cirrus
- When a boy walks in hot sand on a beach, his feet receive heat through which process?
 - radiation
 - conduction
 - convection
 - infiltration
- Which name and description best fits an air mass that originates over a tropical ocean and blows onto a continent?
 - maritime, warm and moist
 - maritime, hot and dry
 - continental, warm and dry
 - continental, cool and moist
- Which kind of front is occurring when warm and cold air masses have winds blowing in opposite directions and parallel to each other?
 - cold front
 - warm front
 - stationary front
 - occluded front
- Which name and description best fits the low-pressure region occurring at a weather front?
 - anticyclone, with clockwise winds
 - anticyclone, with counterclockwise winds
 - cyclone, with clockwise winds
 - cyclone, with counterclockwise winds
- In what direction does the Coriolis force deflect winds in the Northern Hemisphere?
 - to the south
 - to the east
 - to the west
 - inconsistently, depending on the season