

Metric Conversions and Metric Ruler practice KEY

First, fill in the metric chart, then use it to make the following conversions:

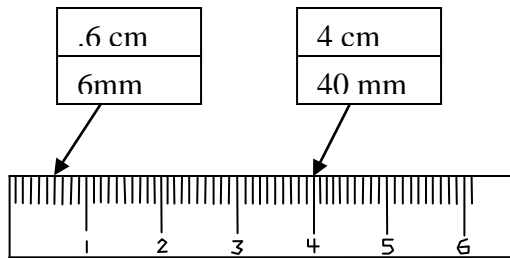
KILO	HECTO	DEKA	base	deci	centi	milli

- 125 cm = 1.25 m
- 34 m = .034 Km
- 56 m = 5600 cm
- 421 DKm = 42100 dm
- 23 cg = .23 g
- 440 g = .440 Kg

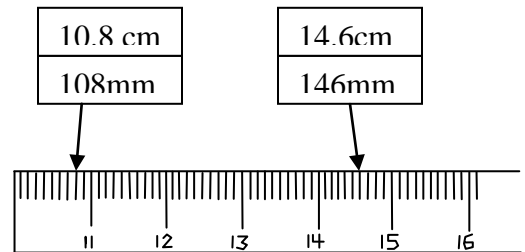
- 34 Kg = 34000 g
- 234 mg = .234 g
- 245 mL = .245 L
- 23 L = 2.3 DKL
- 45 L = 45000 mL
- 12 dL = 1.2 L

For each arrow, write the number of centimeters and the number of millimeters. Label each number.

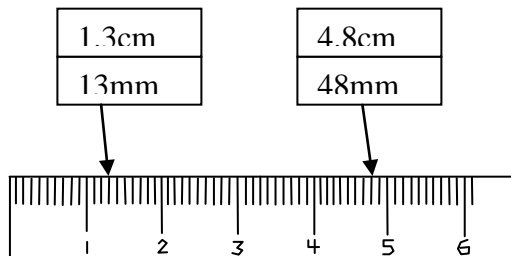
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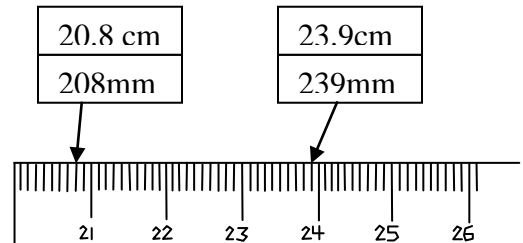
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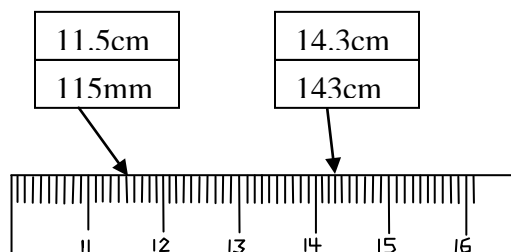
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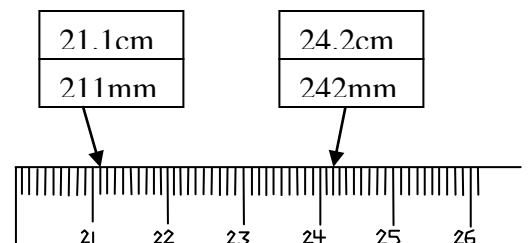
5]



3]



6]

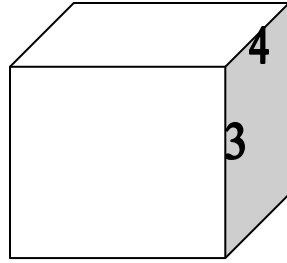


Area and Volume Practice for FINAL KEY

Do not forget proper labels. All items are in centimeters

Calculate the area of the following objects.

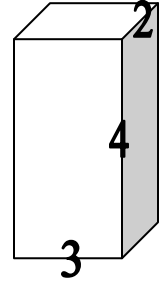
Area of front **15 cm²**
 Area of back **15 cm²**
 Area of side 1 **12 cm²**
 Area of side 2 **12 cm²**
 Area of top **20 cm²**
 Area of bottom **20 cm²**
 Total area → **94 cm²**



VOLUME **60 cm³**

5

Area of front **12 cm²**
 Area of back **12 cm²**
 Area of side 1 **8 cm²**
 Area of side 2 **8 cm²**
 Area of top **6 cm²**
 Area of bottom **6 cm²**
 Total area → **52 cm²**



VOLUME **24 cm³**

Density and Pressure Review

1. Write the formula for density.

DENSITY = MASS/VOLUME

2. If a hunk of metal has a mass of 200g and a volume of 100 cm³ What is its density?

2 g/cm³

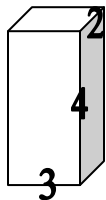
3. If a glass of water has a mass of 80g and a volume of 80 mL What is its density?

1 g/mL

4. If a glass of alcohol has a volume of 222 mL and a mass of 250g What is its density?

1.12 g/mL

5. The mass of this wood block is 20 g. The measurements below are in cm. What is its density? Would it float or sink?



.83 g/cm³ IT WOULD FLOAT

6. Write the formula for pressure.

PRESSURE = WEIGHT/AREA

7. If a hunk of metal has a weight of 100lb and a bottom surface area of 200 in² how much pressure will it exert?

.5 LB/IN²

8. If a shoe (with a person in it) has a bottom surface area of 24 in² and a weight of 125lb how much pressure will it exert?

5.2 LB/IN²

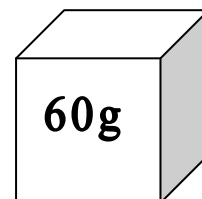
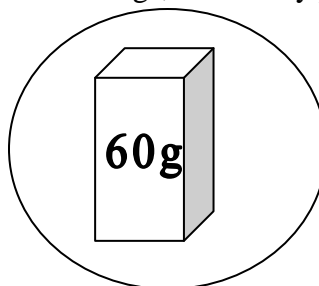
9. If a file cabinet has a weight of 1000 N and a bottom surface area of 2500 cm² how much pressure will it exert?

.4 N/cm²

10. If a desk has a weight of 100lb and there are 4 legs, how many pounds is each leg supporting?

25 POUNDS

11. Circle the one exerting more pressure

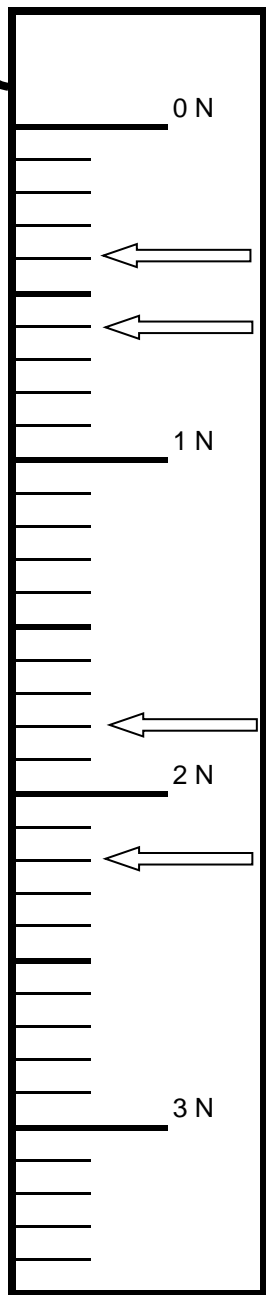


Spring Scale Reading Practice

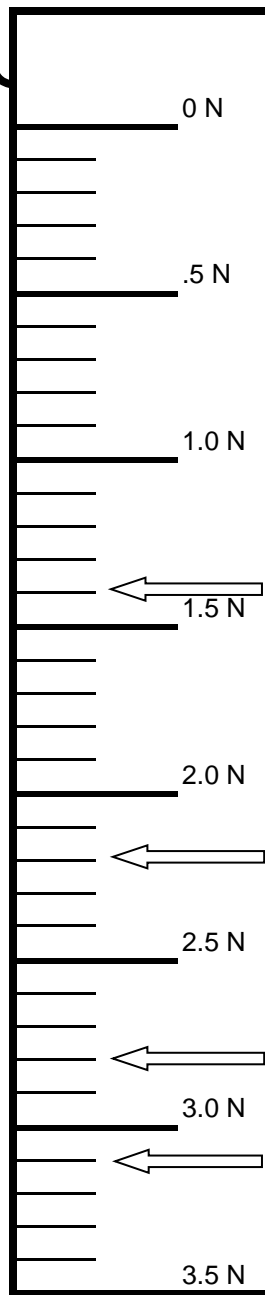
name _____

hour _____

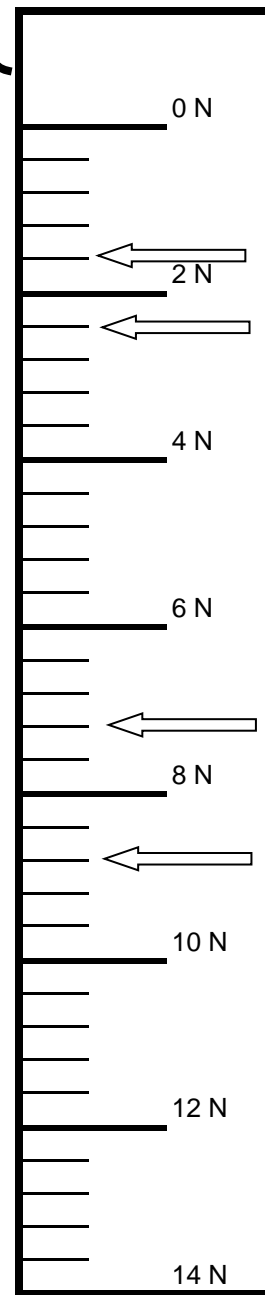
major division _____
minor division _____
value of each space _____



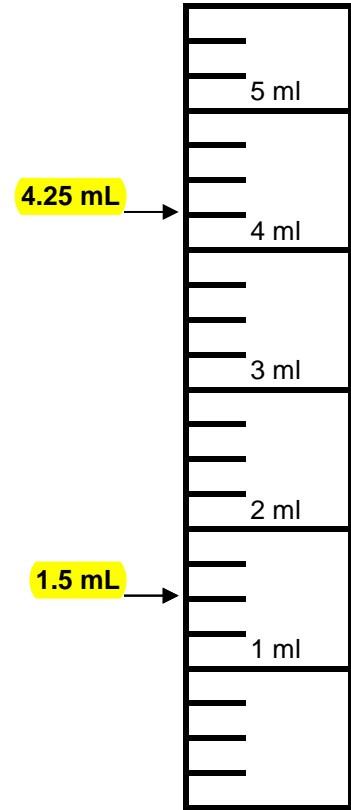
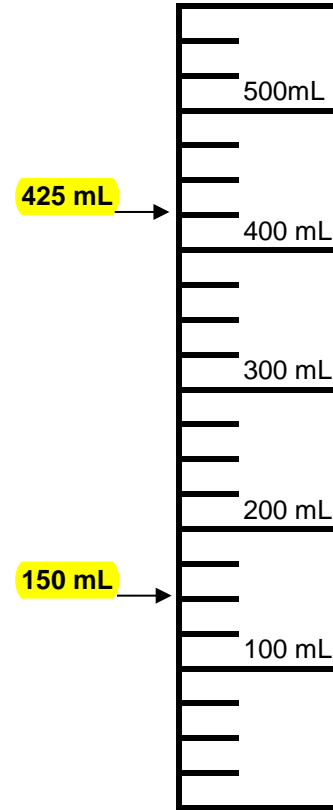
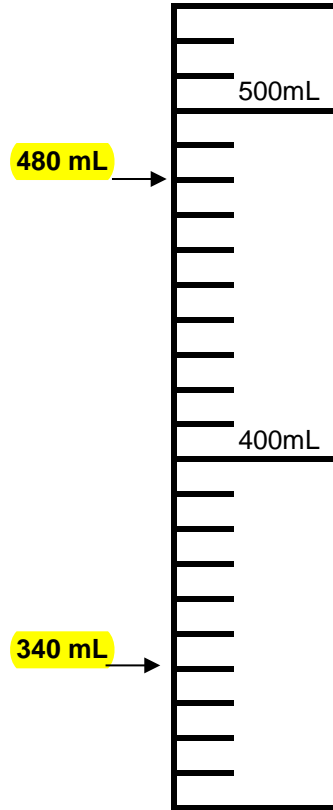
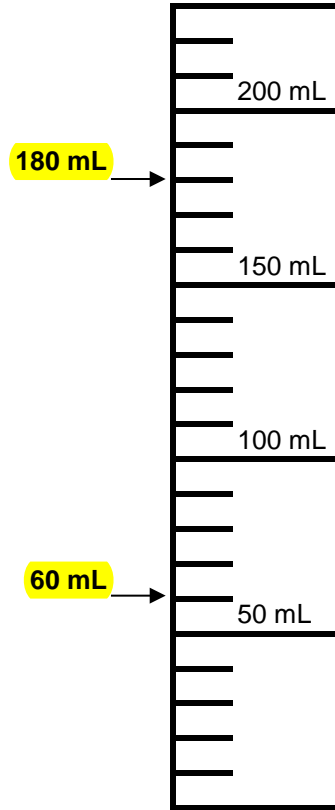
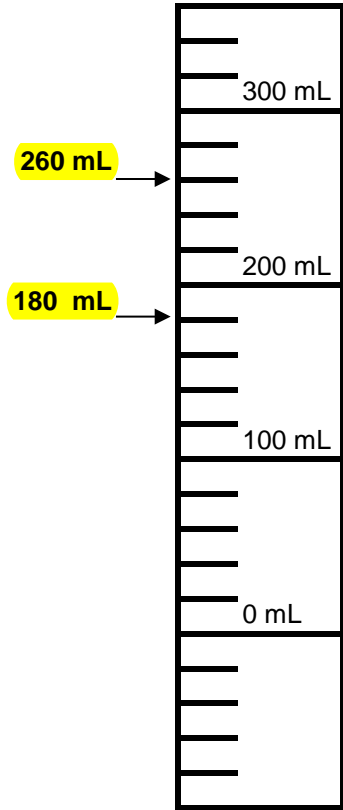
major division _____
minor division _____
value of each space _____



major division _____
minor division _____
value of each space _____



GRADUATED CYLINDER PRACTICE KEY



MEASUREMENT STUDY GUIDE

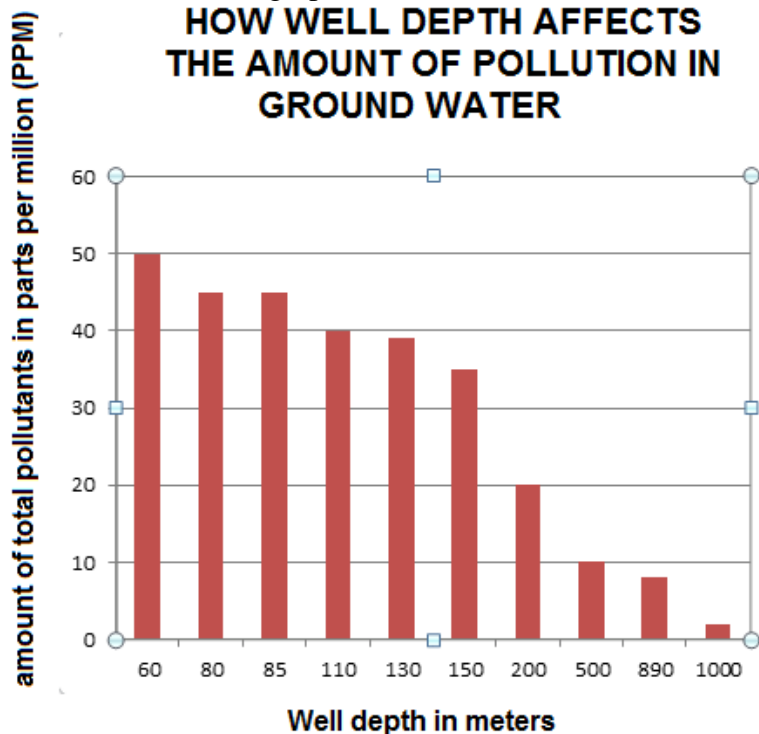
Measurement	Definition	Formula	Metric unit label	English unit label	Tools needed to measure
Linear distance	A STRAIGHT LINE OR EDGE	X	mm, cm, dm, m, DKm, Hm, Km	Inches, feet, yards, miles	ruler
Area	SURFACE; SKIN	$A = l \times w$	$mm^2, cm^2, dm^2, m^2, DKm^2, Hm^2, Km^2$	$Inches^2, feet^2, yards^2, miles^2$	Ruler
Volume of solid	SPACE A SOLID TAKES UP	$L \times W \times H$	$mm^3, cm^3, dm^3, m^3, DKm^3, Hm^3, Km^3$	$Inches^3, feet^3, yards^3, miles^3$	Ruler
Volume of liquid	SPACE A LIQUID TAKES UP	X	mL, cL, dL, L, DKL, HL, KL	Cups, pints, tsp, quarts, gallons	Graduated cylinder, beakers
Mass	AMOUNT OF MATTER	X	mg, cg, dg, g, DKg, Hg, Kg	SLUG	Triple beam balance
Weight	How hard GRAVITY pulls down on an object	X	Newton	pounds	Spring scale
Density	HOW TIGHTLY PACKED	MASS/VOLUME	g/cm^3	X	Triple beam balance, ruler
Pressure	HOW HARD SOMETHING PUSHES	WEIGHT/ AREA	N/cm^2	Lb/in ² or PSI	Spring scale & ruler
Temperature	HOW FAST MOLECULES MOVE	X	celcius	Fahrenheit	thermometer

The Scientific Method Final Exam Review

A scientist wants to study how the depth of a well affects water quality. She gets water samples from 10 different wells in the Astante watershed. She did not use wells from other watersheds to make the test fair. Each well sampled was a different depth. Each well had all the same tests performed on it. The water was tested for bacteria, nitrites and nitrates, pesticides, and hydrocarbons. The pollutants from all four categories were added together to get an overall pollution rating.

microorganisms	Tiny bacteria, viruses, or parasites that might come from sewage and waste that accidentally seeps into ground water
Nitrites and nitrates	Forms of nitrogen that come from human and animal waste as well as crop fertilizers that may seep into ground water
pesticides	Chemicals used by farmers to kill bugs that eat crops that might seep into ground water
hydrocarbons	Chemicals from spilled gas or oil that seeps into ground water

The results of the study are summarized in the graph below:



1. What is the possible hypothesis for this experiment? (What is the experimenter's best guess as to what the result is going to be?)

DEPTH OF THE WELL WILL HAVE SOMETHING TO DO WITH HOW POLLUTED THE WATER IS

2. What was the independent variable in this study?

WELL DEPTH

3. What was the dependent variable?

AMOUNT OF POLLUTION

4. What is the sample size, and was it good or not?

10 WELLS—WOULD BE BETTER IF THERE WERE MORE

5. What are some of the controlled variables?

ALL WELLS ARE IN THE SAME WATERSHED & ALL WELLS RECEIVED THE SAME TESTS

6. Based on the data, what conclusion did this scientist come up with?

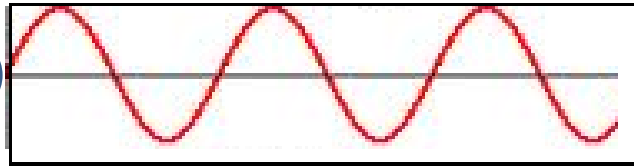
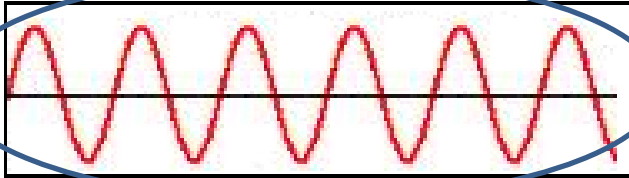
THE DEEPER THE WELL, THE LESS POLLUTION THERE IS

Wave review for final exam KEY

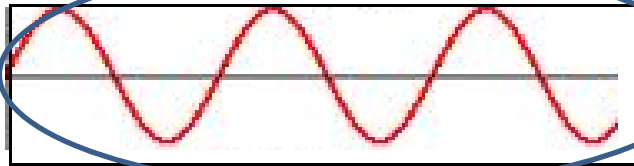
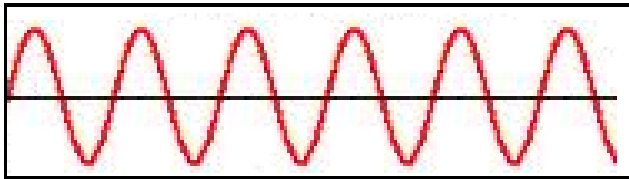
Define

1. WAVE-- A REPEATED DISTURBANCE THAT CARRIES ENERGY FROM ONE LOCATION TO ANOTHER
2. FREQUENCY-- HOW MANY WAVES PASS A SINGLE POINT IN ONE SECOND (MUSICIANS CALL IT PITCH)
3. WAVELENGTH-- HOW LONG A SINGLE WAVE IS FROM START TO FINISH AMPLITUDE--
4. VIBRATION-- DISTURBANCE CAUSED BY MOLECULES WIGGLING

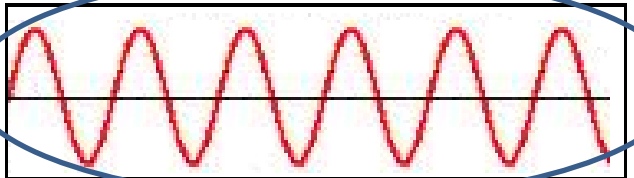
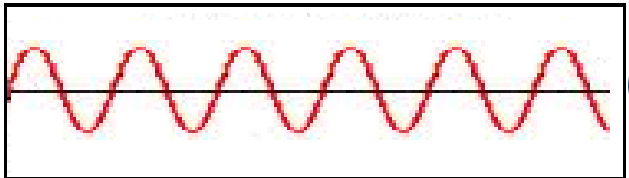
1. Circle the higher frequency



2. Circle the longer wavelength



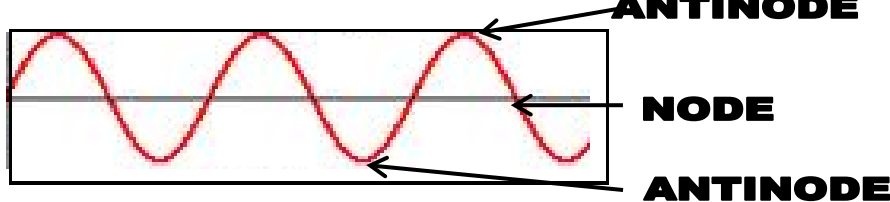
3. Circle the higher amplitude



4. Give 3 examples of vibrations

- 1 VOCAL CORDS
- 2 BELL RINGING
- 3 A HAND WAVING

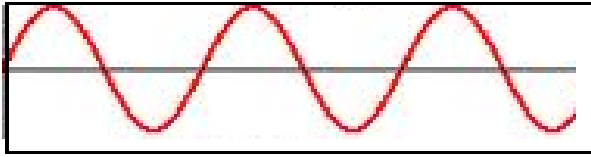
5. Label the nodes and antinodes



6. Which molecules are more energized, ones at the node or ones at the antinode?

ANTINODES

7. Label the crests and troughs **CREST = TOP ANTINODE** **TROUGH = BOTTOM ANITNODE**



8. What is the electromagnetic spectrum?

CHART THAT SHOWS ALL 7 CATEGORIES OF ELECTROMAGNETIC WAVES

9. What name the electromagnetic waves in order from lowest energy to highest energy

- 1 RADIO
- 2 MICROWAVES
- 3 INFRARED
- 4 VISIBLE
- 5 ULTRAVIOLET
- 6 XRAY
- 7 GAMMA

10. Do electromagnetic waves need a medium?

NO

What is the medium for....

11. A tidal wave **WATER**
12. A sound wave **AIR**
13. A stadium wave **PEOPLE**
14. A seismic wave (earthquake) **THE EARTH (DIRT, ROCKS)**

Waves behave in 6 different ways. If they

15. Bend around a corner it's called **DIFFRACTION**
16. Bend because they hit a different medium it's called **REFRACTION**
17. Bounce off a surface it's called **REFLECTION**
18. Collide and add their amplitudes together it's called **CONSTRUCTIVE INTERFERENCE**
19. Collide and cancel each other out it's called **DESTRUCTIVE INTERFERENCE**
20. Hit a medium and soak into it it's called **ABSORPTION**

21. Compressional (longitudinal) waves-

Wave moves sideways and the molecules move (up and down or back and forth)

22. Transverse waves-

Wave moves sideways and the molecules move (up and down or back and forth)

23. Label as either transverse or compressional (longitudinal)



COMPRESSIONAL

TRANSVERSE

24. Draw a wave that is at equilibrium

25. What is the main thing that a wave does?

TRANSFERS ENERGY

26. What is the proper order for the visible wavelengths from lowest energy to highest energy?

RED, ORANGE, YELLOW, GREEN, BLUE, INDIGO, VIOLET

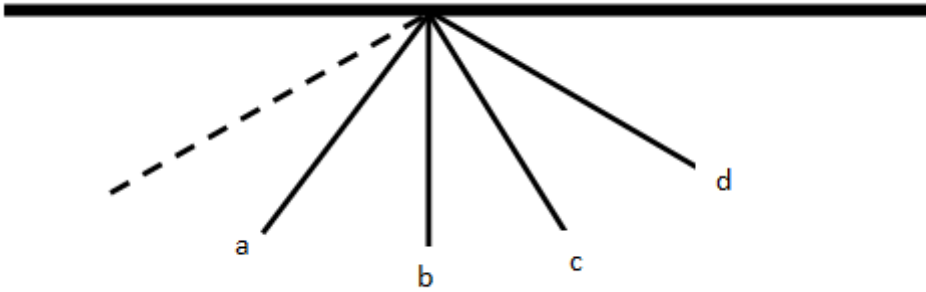
27. IF coke is black and milk is white, which gets warmer quicker when sitting out in the sun?

COKE

28. What starts a wave?

A DISTURBANCE OF THE MOLECULES OR A VIBRATION

29. If the dotted line is the angle of incidence, which line is the angle of reflection?



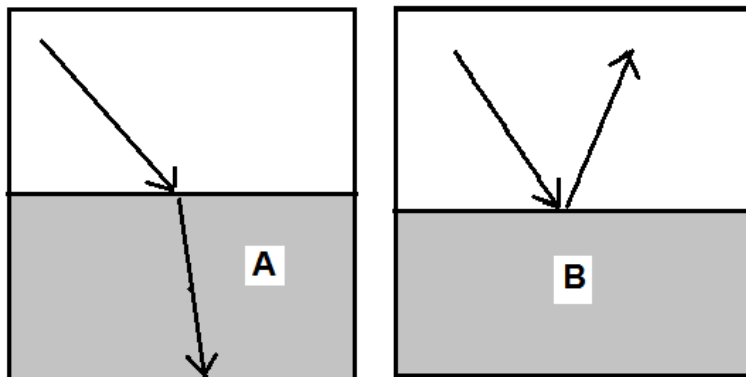
ANGLE D

30. Is the A substance reflective or absorptive?

ABSORPTIVE

31. Is the B substance reflective or absorptive?

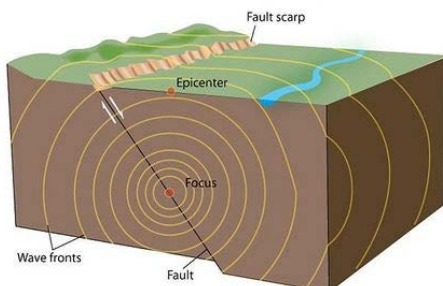
REFLECTIVE



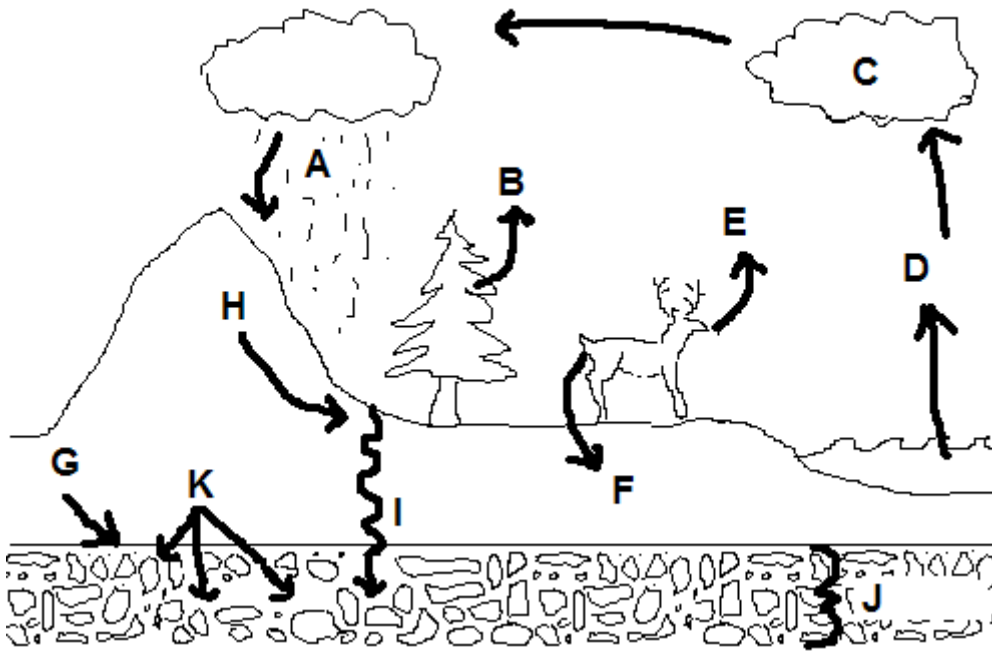
32. How does a seismic wave topple a building 20 miles from the focus?

THE WAVES TRAVEL THROUGH THE EARTH TAKING THE MOTION ENERGY ALL THE WAY TO THE BUILDING

Seismic Waves Radiate from the Focus of an Earthquake



WATER CYCLE REVIEW:



NAME THE PROCESSES / OBJECTS ASSOCIATED WITH THE WATER CYCLE.

WORD BANK: infiltration, ground water, transpiration, evaporation, water table, Aquifer, run off, condensation, precipitation, respiration, urination (11 pts)

A PRECIPITATION

B TRANSPIRATION

C CONDENSATION

D EVAPORATION

E RESPIRATION

F URINATION /DEFECATION / EXCRETION

G WATER TABLE

H RUNOFF

I INFILTRATION

J AQUIFER

K GROUNDWATER

Name the 8 water reservoirs and the average residence time in each:

reservoir	Residency time
OCEAN	3200 YEARS
GLACIERS AND ICE CAPS	20-100 YEARS
GROUND WATER	100-10,000 YEARS
LAKES	50-100 YEARS
SOIL MOISTURE	1-2 MONTHS
ATMOSPHERE	9 DAYS
RIVERS AND STREAMS	2-6 MONTHS
BIOSPHERE	HOURS TO DECADES

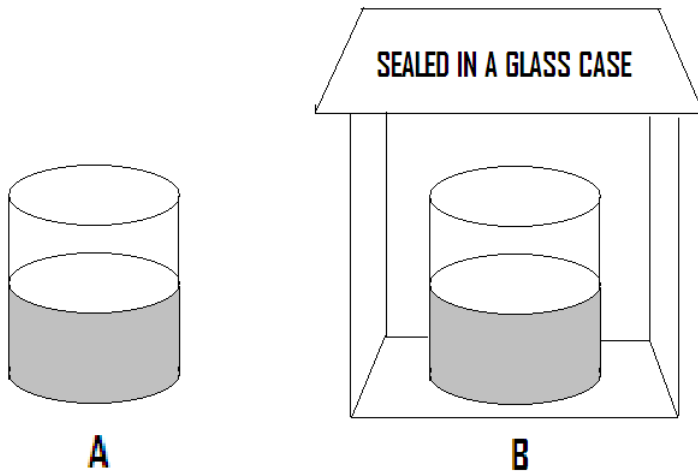
Define:

1. Biosphere- **ALL LIVING THINGS ON THE PLANET**
2. impervious – **UNABLE TO SOAK IN**
3. permeable- **ABLE TO SOAK IN**
4. aquifer- **UNDERGROUND LAYER OF WATER-BEARING PERMEABLE ROCK**
5. hydrologic cycle- **THE WATER CYCLE**
6. watershed- **AN AREA OF LAND AND ALL THE WATER THAT DRAINS IT**

7. List 4 potential groundwater contaminants
 - 1 **PESTICIDES**
 - 2 **HERBICIDES**
 - 3 **MICROORGANISMS (BACTERIA, FUNGUS, VIRUS, ETC)**
 - 4 **HYDROCARBONS (GAS AND OIL)**
 - NITRATES AND NITRITES**

8. What force drives evaporation?
HEAT OF THE SUN
9. What force drives precipitation?
GRAVITY
10. What has to occur in the atmosphere for condensation to take place?
COOL DOWN
11. What percent of the water on the planet is freshwater?
2.75%
12. In what way are humans a part of the water cycle? (4)
PERSPIRATION, URINATION, RESPIRATION, DEFECATION
13. What would cause a water table to rise?
LOTS OF RAIN
14. Where is the water in an aquifer located?
AROUND THE ROCKS / IN THE CRACKS AND CREVICES
15. How do we clean dirty / used water? (2 pts)
SEPTIC TANKS AND WATER TREATMENT PLANTS

16. After 72 hours, which container will have less water?
CONTAINER A

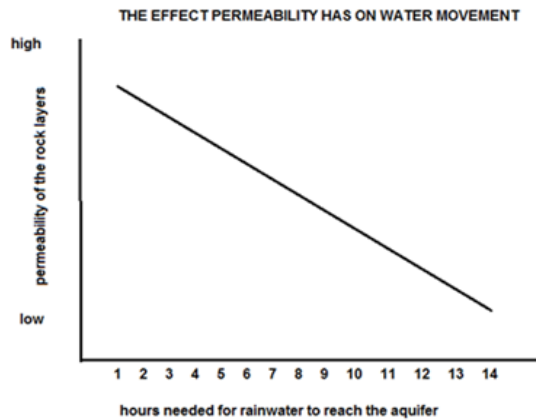


Use these definitions and the graph to answer questions below

POROSITY- the "hole-iness" of rock (like a sponge)

PERMEABLE- the Earth's ability to let liquids flow through it

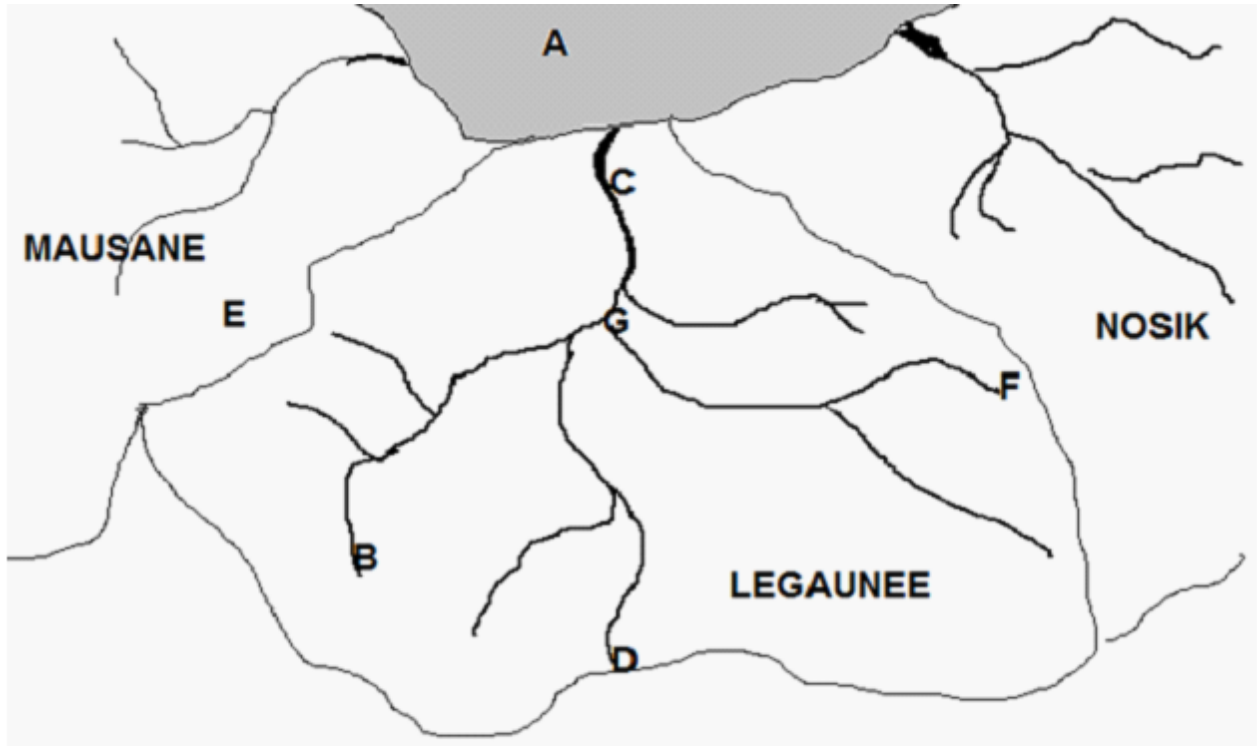
IMPERMEABLE – unable to allow water to flow through



17. If land is not very permeable, what happens to soak in time?
INCREASES / GOES UP

18. If permeability increases, what happens to soak in time?
DECREASES / GOES DOWN

19. If land has porous rocks, it is probably more permeable or more impermeable?
MORE PERMEABLE



Which letter shows the main river that drains the Legaunee watershed?

C

What is B?

STREAM OR TRIBUTARY

If rain water falls in the area marked "E," which watershed will drain it?

MAUSANE

A is an area where all three watersheds drain. It is probably a(n)

LAKE OR OCEAN

Which letter(s) show the upper basin of the Legaunee watershed?

B D F

If the Legaunee watershed is polluted at point F, what other areas will be affected? Name all 3. (3 pts)

G C A

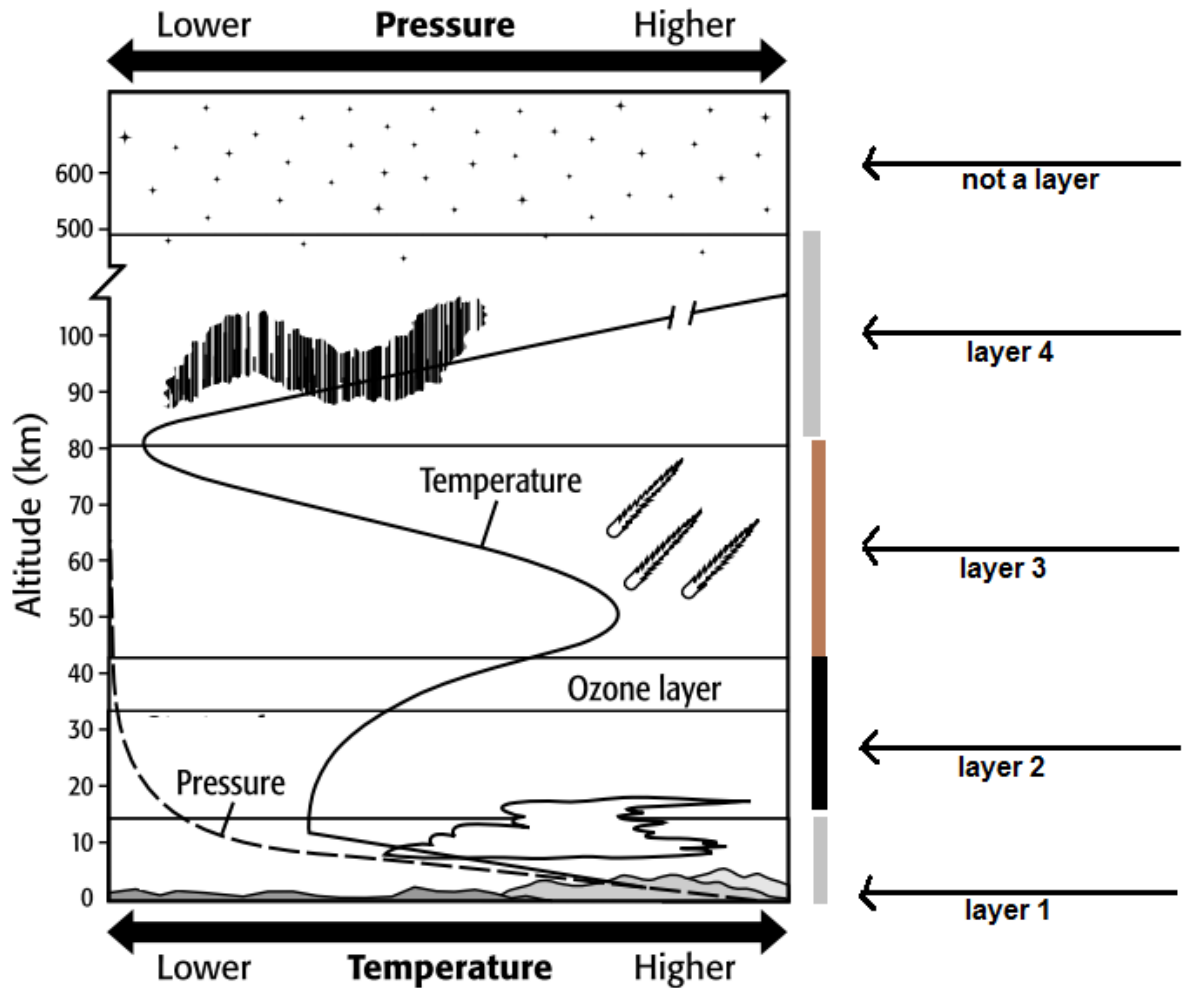
WEATHER AND CLIMATE 1-1 KEY

DEFINE:

1. Atmosphere- **LAYER OF GASES SURROUNDING EARTH**
2. Air pressure- **THE FORCE THAT AIR EXERTS**
3. Water vapor- **WATER IN GAS FORM**

LABEL:

4. Troposphere
5. Stratosphere
6. Mesosphere
7. Thermosphere
8. Ionosphere
9. Space
10. Aurora
11. meteor



12. What gases make up earth's atmosphere? Percent?

NITROGEN 78% OXYGEN 21% TRACE GASES 1%

13. What is the air pressure on Earth at sea level?

14.7 POUNDS/ IN²

14. How are the layers of the atmosphere divided?

WHERE THE TEMPERATURE CHANGES

15. What is the layer where all weather takes place?

TROPOSPHERE

16. What layer has the highest temperature?

THERMOSPHERE

17. Why does the high temperature layer not feel hot?

MOLECULES TOO FAR APART

18. What layer is the coldest?

MESOSPHERE

WEATHER AND CLIMATE 1-2

DEFINE:

- 19. Radiation- **ENERGY MOVING BY ELECTROMAGNETIC WAVES**
- 20. Conduction- **ENERGY MOVING BY MOLECULES TOUCHING**
- 21. Convection- **ENERGY MOVING BY MOLECULES RELOCATING (HEAT UP, COLD DOWN)**
- 22. Greenhouse effect- **THE HEATING OF ATMOSPHERIC GASES BY INFRARED WAVES**
- 23. Global warming- **THE HEATING OF THE EARTH DUE TO THE GREENHOUSE EFFECT**
- 24. Radiation balance- **THE RADIATION COMING FROM THE SUN EQUALS THE RADIATION LEAVING**
- 25. Describe the process of the greenhouse effect

**SHORT WAVES FROM SUN PASS THROUGH ATMOSPHERE AND HIT EARTH
EARTH RERADIATES WAVES AS HEAT WAVES (LONGER)
HEAT WAVES (INFRARED) ARE ABSORBED BY THE ATMOSPHERE**

- 26. What causes global warming? **THE GREENHOUSE EFFECT**
- 27. What might happen if global warming continues? **GLACIERS MELT FLOODING COASTS, BIGGER STORMS, FOREST FIRES,**

WEATHER AND CLIMATE 1-3

MATCH:

B Wind	A] Trade winds, polar easterlies, westerlies
C Coriolis effect	B] Moving air
D Jet stream	C] The curving of winds due to Earth rotating
A Global winds	D] narrow belt of high speed wind in upper troposphere

- 28. Wind always moves from areas of **HIGH** pressure to areas of **LOW** pressure.
- 29. What causes sea breezes? (draw and label if you like)
**DAY--WARM AIR RISES ABOVE HOT SAND, COOL AIR FROM OCEAN RUSHES IN
NIGHT—WARM AIR RISES ABOVE WARM WATER, AIR FROM BEACH RUSHES IN**
- 30. What causes mountain and valley breezes? (draw and label if you like)
**DAY- HOT AIR FROM VALLEY RISES UP MOUNTAIN
NIGHT – COLD AIR SINKS DOWN MOUNTAIN**

WEATHER AND CLIMATE 1-4

DEFINE

- 31. Air pollution- **TOXIC GASES OR PARTICLES IN THE AIR**

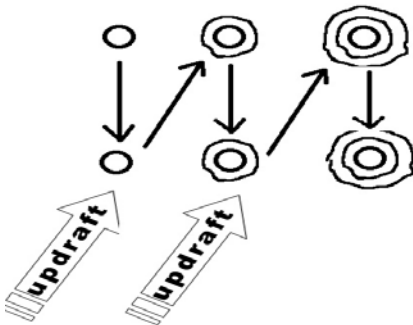
32. Acid precipitation- **DAMAGING PRECIPITATION FORMED FROM SULFUR AND NITROGEN COMPOUNDS MIXING WITH WATER IN THE AIR**
33. Primary pollutants- **POLLUTION PUT DIRECTLY INTO THE AIR**
34. Secondary pollutants- **POLLUTANTS THAT FORM WHEN CHEMICALS REACT WITH OTHER CHEMICALS (OR SUNLIGHT) TO MAKE A NEW POLLUTION**
35. Acidification- **WHEN THE ACIDITY OF SOIL OR LAKES INCREASES**
36. Ventilation- **OPENING A WINDOW TO REDUCE INDOOR AIR POLLUTION**
37. Scrubber- **DEVICE THAT REMOVES POLLUTANTS BEFORE THEY ARE RELEASED FROM SMOKE STACKS**
38. How does smog form? **SUNLIGHT REACTS WITH OZONE AND VEHICLE EXHAUST**
39. Why does Los Angeles have a major smog problem? **IT IS SURROUNDED BY MOUNTAINS**
40. What causes acid precipitation? **WHEN SULFUR AND NITROGEN COMPOUNDS COMBINE WITH WATER IN THE AIR**
41. What does acid precipitation do to plants? **DAMAGES LEAVES, CAUSES ROOTS TO ABSORB TOXIC HEAVY METALS, GOOD NUTRIENTS GET WASHED AWAY**
42. What does acid precipitation do to aquatic ecosystems? **CAUSES EGGS TO NOT HATCH, FISH AND AQUATIC PLANTS MAY DIE,**
43. What does acid precipitation do to buildings or statues made of limestone or marble? **WEARS THEM DOWN**
44. What chemical caused the ozone hole?
CFCS
45. Why is the ozone hole a bad thing?
ALLOWS UV RAYS TO MAKE IT DOWN TO EARTH
46. What are the short term effects of air pollution on human health? Long term?
**BREATHING PROBLEMS, COUGHING, WATERY EYES
ASTHMA, LUNG CANCER**

Weather and Climate Chapter 2-1

DEFINE:

1. Weather- **THE CONDITION OF THE ATMOSPHERE AT A PARTICULAR TIME AND PLACE**
2. Humidity- **WATER IN THE AIR**
3. Relative Humidity- **THE AMOUNT OF WATER IN THE AIR COMPARED TO HOW MUCH WATER IT CAN HOLD**
4. Condensation- **WHEN WATER IN GAS FORM COMES TOGETHER IN TINY LIQUID DROPLETS**

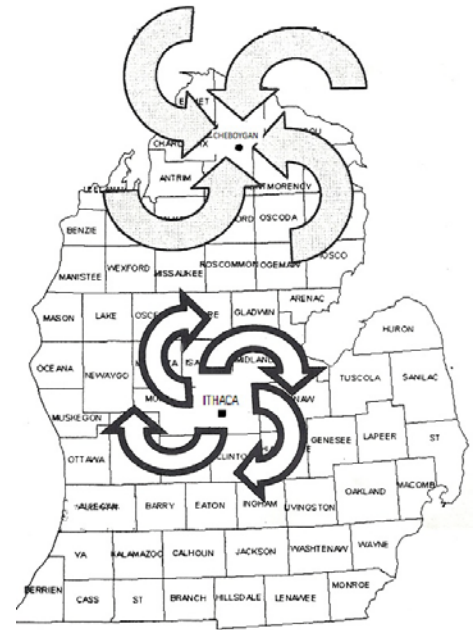
5. Cloud- **A COLLECTION OF VISIBLE CONDENSATION IN THE AIR**
6. Precipitation- **ANY FORM OF WATER FALLING FROM THE SKY**
7. Saturated- **100% FILLED WITH WATER**
8. Psychrometer- **DEVICE USED TO MEASURE RELATIVE HUMIDITY**
9. Dew Point- **TEMPERATURE NEEDED TO MAKE THE WATER IN THE AIR CONDENSE. TEMPERATURE NEEDED TO MAKE RAIN, SNOW, CLOUDS**
10. Cumulus Cloud- **FLUFFY PUFFY**
11. Cumulonimbus cloud- **FLUFFY PUFFY AND RAINY**
12. Stratus Cloud- **SMEARY FOGGY**
13. Fog- **STRATUS CLOUD TOUCHING THE GROUND**
14. Cirrus Cloud- **HIGH STREAKY CLOUD**
15. Sleet- **RAIN THAT FELL THROUGH A LAYER OF FREEZING AIR MAKING IT ICE**
16. Hail- **RAIN THAT GETS BLOWN UPWARD MANY TIMES ADDING LAYERS OF ICE**
17. What happens to the relative humidity as temperature of air drops?
INCREASES
18. What does a big difference between the wet bulb and dry bulb thermometers of a psychrometer indicate about the relative humidity?
THE HUMIDITY IS LOW (THE AIR IS DRY)
19. Why does dew and frost occur at night and disappear by late morning?
IT GETS COLD ENOUGH TO HIT THE DEWPOINT. DISAPPEARS BECAUSE THE HEAT OF THE SUN MAKES THE TEMP GO HIGHER THAN THE DEWPOINT
20. What type of precipitation would each cloud produce?
 - a. Cumulus- **LIGHT**
 - b. Cumulonimbus- **HEAVY**
 - c. Stratus- **SPRINKLY**
 - d. Cirrus- **NONE**
21. What two ways are clouds classified?
BY HEIGHT AND SHAPE (ALTITUDE AND FORM)
22. Explain how hail forms. Draw it.




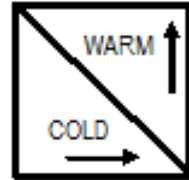
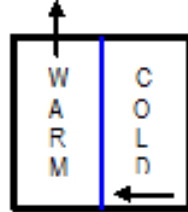
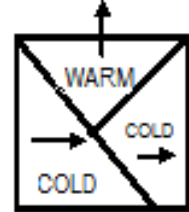
Weather and Climate Chapter 2-2

DEFINE:

- 23. Air Mass- **LARGE BODY OF AIR WITH SIMILAR TEMPERATURE AND MOISTURE**
- 24. Front- **PLACE WHERE 2 AIR MASSES MEET (THE PLACE WHERE PRECIPITATION IS HAPPENING)**
- 25. Label the Cyclone on the map
- 26. Label the Anticyclone on the map
- 27. What weather would you suspect from a cyclone (low pressure)?
PRECIPITATION
- 28. What weather would you suspect from an Anticyclone (high pressure)?
NICE WEATHER; DRY

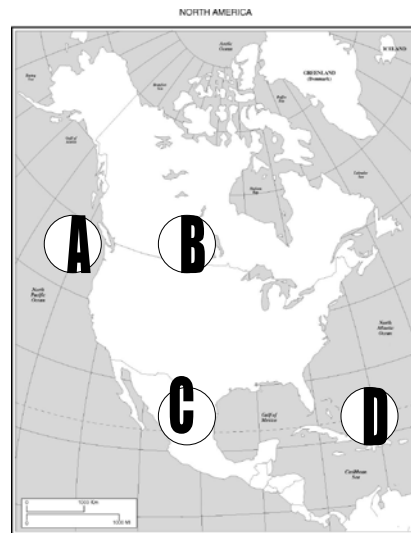


Label the fronts

			
A	B	C	D
WARM	COLD	STATIONARY	OCCLUDED

- 29. Which front has light, constant precipitation?
STATIONARY
- 30. Which front has heavy precipitation?
COLD
- 31. Which front has severe weather and possible tornadoes?
OCCLUDED
- 32. Which front has steady precipitation?
WARM

- 33. What kind of air mass is A?
MARITIME POLAR
- 34. What kind of air mass is B?
CONTINENTAL POLAR
- 35. What kind of air mass is C?
CONTINENTAL TROPICAL
- 36. What kind of air mass is D?
MARITIME TROPICAL



- 37. What two factors determine if rising air will produce just clouds or worse weather?
HOW FAST THE WARM AIR RISES & HOW MUCH WATER IS IN THE AIR

Weather and Climate Chapter 2-3

MATCH:

38. B Thunderstorm	A] Small spinning column of air with high winds. 10 to 60 meters wide
39. E Lightning	B] Severe rain storm that includes lightning, thunder, and sometimes hail
40. H Thunder	C] Large spinning tropical weather system with high winds. Hundreds of miles wide and most destructive of all storms.
41. A Tornado	D] Hurricane name in Asia
42. C Hurricane	E] Electric discharge caused by positive and negative charges jumping in storm clouds; massive static shocks
43. D Typhoon	F] Hurricane name in the Indian Ocean
44. F Cyclones	G] Flood of water brought in by a hurricane
45. G Storm Surge	H] Sound made by lightning

46. Watch- **TORNADOS MAY POSSIBLY FORM**

47. Warning- **TORNADO HAS ACTUALLY BEEN SPOTTED**

48. What two factors cause a thunderstorm to be severe?

HOW FAST THE WARM AIR RISES & HOW MUCH WATER IS IN THE AIR

49. What is the width of a tornado's path of travel? Wind speeds?

10-60 METERS 120-180 KM/HR

50. How does a tornado form?

AN UPDRAFT MAKES AIR THAT IS SPINNING VERTICALLY START TO SPIN HORIZONTALLY

51. What is the wind speed of a hurricane?

AT LEAST 120 KM/HR

52. How high can the storm surge of a hurricane be?

9 METERS HIGH

53. How does a hurricane form?

THUNDERSTORMS OVER THE OCEAN JOIN UP

54. What happens to a hurricane's strength when it moves on shore?

WEAKENS (LOSES ITS ENERGY WHICH IS WARM, WET, RISING AIR)

Weather and Climate Chapter 2-4

DEFINE:

55. Weather forecast- **PREDICTION OF FUTURE WEATHER**

56. Station Model- **PICTURE THAT CONTAINS WEATHER DATA**

57. B Thermometer-	A] Measures wind direction using a bag
58. E Barometer-	B] Measures how fast molecules are moving; measures heat
59. G Anemometer-	C] Device that tracks precipitation
60. A Windsock-	D] Measures wind direction using a pointer
61. D Wind vane-	E] Measures the air pressure
62. C Radar-	F] Technology in the outer atmosphere that can take pictures of weather systems
63. F Weather Satellite-	G] Measures wind speed
64. H Weather Balloon-	H] Tool that floats into the sky carrying weather measuring equipment

65. What is the map symbol for a warm front?

66. What is the map symbol for a Cold front?

67. What kind of incoming weather does a falling barometer indicate? Rising barometer?

FALLING-PRECIPIATION/ STORM IS COMING

RISING – NICE WEATHER IS COMING

Label the cloud types



A
CIRRUS

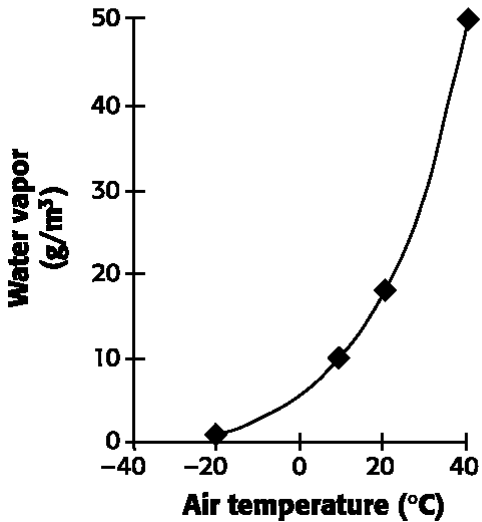


B
STRATUS



C
CUMULOUS

Maximum Amount of Water Air Can Hold at Various Temperatures



68. What does this graph show?

THE AMOUNT OF WATER AIR CAN HOLD AT CERTAIN TEMPERATURES

69. How much water can the air hold at 20 degrees?

20 GRAMS

70. If the air only has 10 grams of water at 20 degrees, what is the relative humidity?

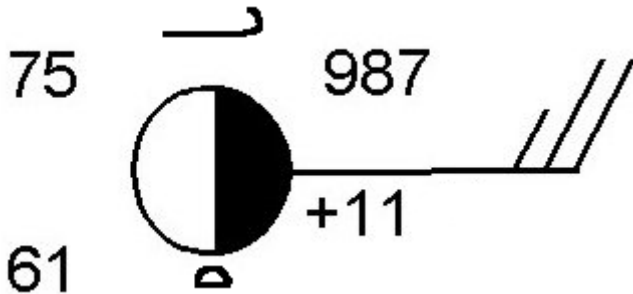
50%

71. If the air only has 30 grams of water at 40 degrees, what is the relative humidity?

60%

72. If there are 20 grams of water in 20 degree air that gets chilled down to 10 degrees, what will happen to the water?

IT WILL FALL OUT OF THE AIR (PRECIPITATION)



73. Where is the wind coming from?

EAST

74. What do the symbols directly above and below the circle represent?

CLOUD TYPES

75. To what degree is the sky covered with clouds?

1/2

76. What is the barometric pressure?

987

77. What precipitation is occurring?

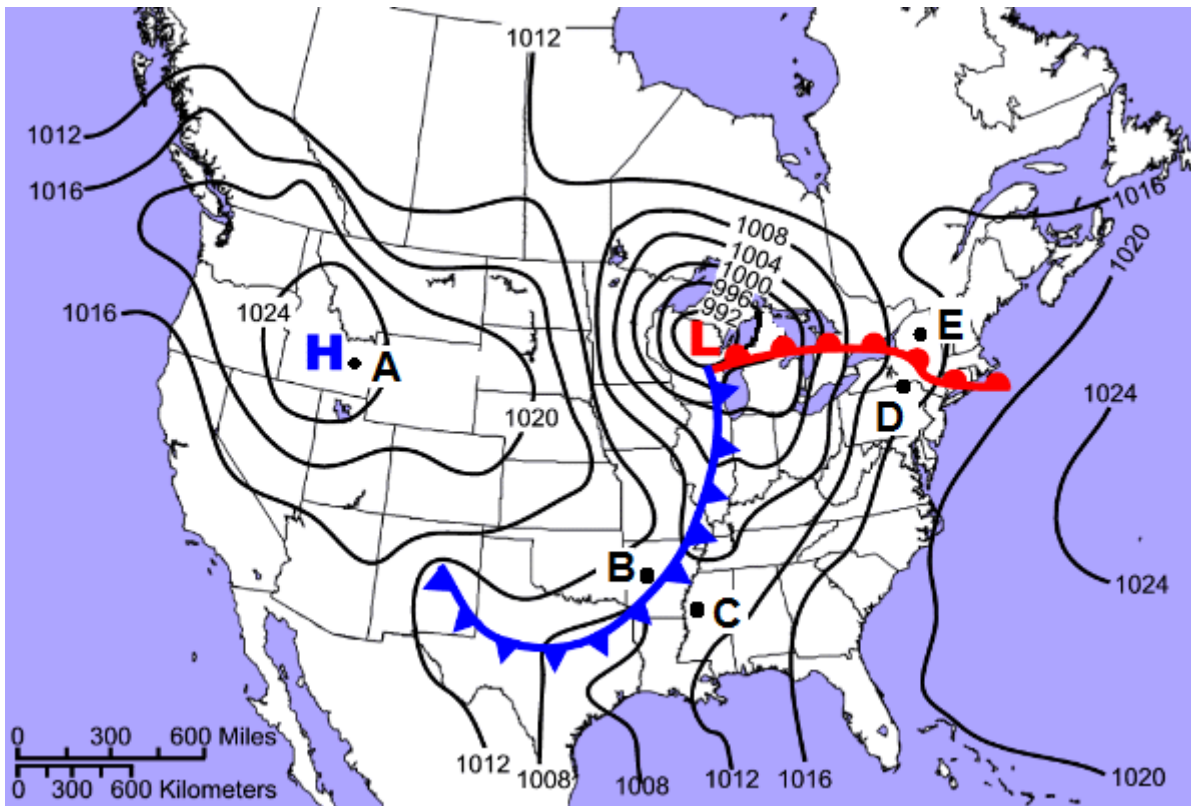
NONE

78. What temperature is it?

75

79. What is the dew point?

61



What city just experienced a cold front?

B

What city just experienced a warm front?

D

What city is colder b or c?

B

What direction is the warm front moving?

NORTH

What direction is the cold front moving?

EAST

If the temperature is 70 degrees Fahrenheit, what kind of weather did city D just have?

GENTLE RAIN

If the temperature is 28 degrees Fahrenheit, what kind of weather did city B just have?

SNOW

What do the numbers in the thousands stand for?

PRESSURE

What does the H stand for?

HIGH PRESSURE

What does the L stand for?

LOW PRESSURE

Where is the air sinking?

HIGH PRESSURE

Where is the air rising?

LOW PRESSURE

What pressure is Florida getting?

1020