

# Weather Test Study Guide

## Air masses

- Take the characteristics of the land they were formed over
- Identified by two letters (first is for humidity and second is for temperature)
- Continental (c): *land (dry)*
- Maritime (m): *sea (moist)*
- Tropical (T): *warm*
- Polar (P): *cold*
- Arctic (A): *bitter cold*

## Hurricanes

Tell me everything I need to know about Hurricanes here:

*low pressure systems that form in tropical waters use warm water as fuel. rely on Coriolis Effect start at tropical depression can be 100's of miles wide*

## Tornadoes

Tell me everything I need to know about Tornadoes here:

*caused by warm moist air in front of eastward moving cold fronts*

## Thunderstorms

Tell me everything I need to know about Thunderstorms here:

*sudden change in pressure*  
*cold & hot air masses*  
*Thunder*  
*cumulonimbus clouds*  
*lightning humid afternoons*

## Fronts

What is a front?

*a place where cold and warm air masses meet*

What are the 4 types of fronts?

*cold*  
*warm*  
*stationary*  
*occluded*

## Warm Front

What is the symbol on a weather map?



What is happening?

*warm air is rising up and over cold air*

What is the associated weather and cloud cover?

*stratus clouds, light rain*

## Cold Front

What is the symbol on a weather map?



What is happening?

*cold air pushing warm air up*

What is the associated weather and cloud cover?

*clear blue skies preceded by severe weather*

## Stationary Front

What is the symbol on a weather map?



What is happening?

*air masses meet until one takes over*

What is the associated weather and cloud cover?

*rain lasting days*

### Coriolis Effect

What is the Coriolis Effect?

the deflection of wind as a result of earth's rotation

Why is it important?

it affects weather patterns

### Air Quality

What is air quality?

determines the amount of pollution and particulate matter in the air

List some things that negatively impact our air quality:

gases, fossil fuels, particulate matter

### Stratospheric v. Tropospheric Ozone:

Where do I find "good" ozone? Why do we want to have ozone here?

stratosphere protects from harmful UV rays

Where do I find "bad" ozone? What kinds of problems does it cause?

troposphere stops radiation from leaving our atmosphere and keeps

### Particulate Matter

What is particulate matter?

tiny droplets or particles in the air

Where does it come from?

dust dirt pollen

How does it affect us?

makes poor air quality

### Smog

What is Smog?

a colloid of smoke, fog, and chemicals and irritates the lungs

Where does it come from?

smoke fog and chemicals

How does it affect us?

irritates the lungs

### Acid Rain

What is acid rain?

harmful mixture of gasses and water vapor

Where does it come from?

pollution

How does it affect us?

harmful to our skin

### Global Warming

What is global warming?

the gradual increase in temperature

How is global warming related to greenhouse gasses?

greenhouse gasses are trapped in because of ozone layer creating the greenhouse effect which traps in radiation the increase in temperature contributes to global warming

Why would warmer temperatures cause problems?

melts ice caps