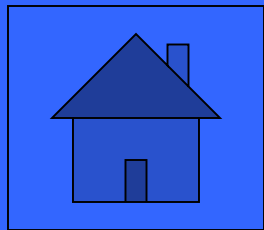


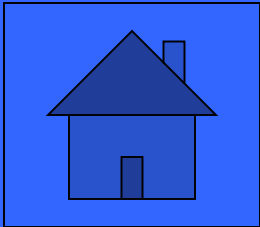
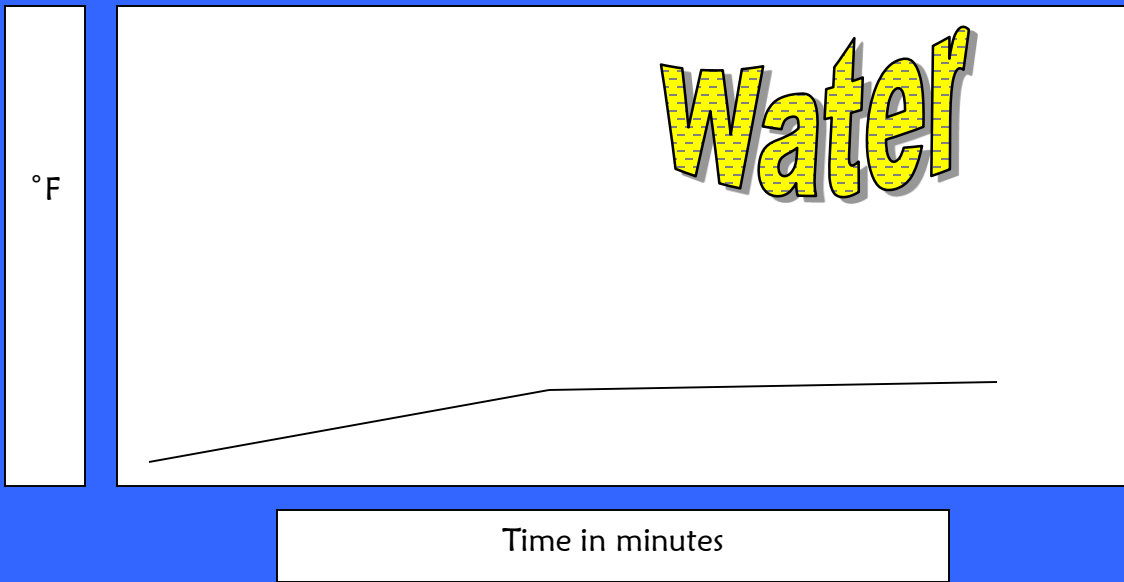
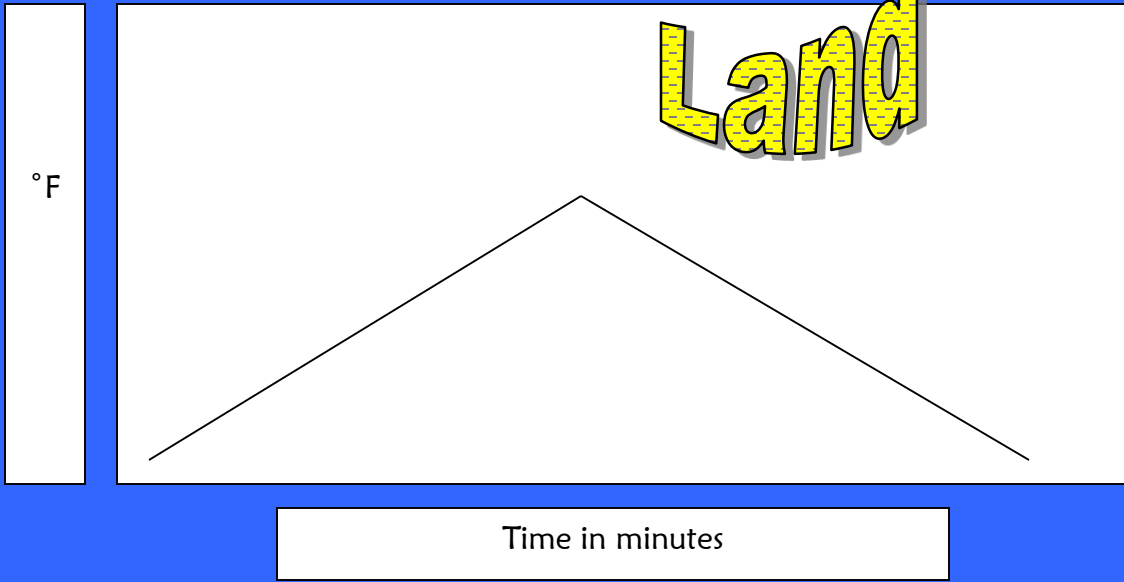
Heat Transfer	Wind	Weather & Atmosphere	Water Cycle Clouds Air Masses	Thunderstorms / Hurricanes / Tornadoes
<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>
<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>
<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>

Which heats and
cools faster?

What is land?



Draw graphs to show what water heated and cooled for 10 minutes would look like and what land heated and cooled for 10 minutes would look like.

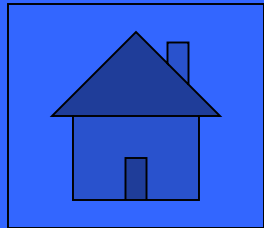


Give a definition
and example of heat
transfer by
conduction.

What is heat transfer by *direct contact*.

Ex. 1: When a person walks barefoot on the beach on a hot summer day.

Ex. 2: Your little brother touches the frying pan on the stove. (ouch!)



Give a definition
and example of heat
transfer by
convection

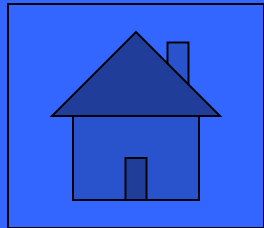
Convection: What is heat transfer through water or air in a circular motion.

Ex. Convection:

1) land breeze

2) sea breeze

3) The water in the pot of water on the stove boiling!



Give an example and
definition of heat
transfer by radiation

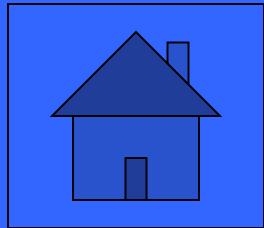
- *Radiation*: What is heat transfer through space which heats up the land/object without touching.

Ex. Radiation:

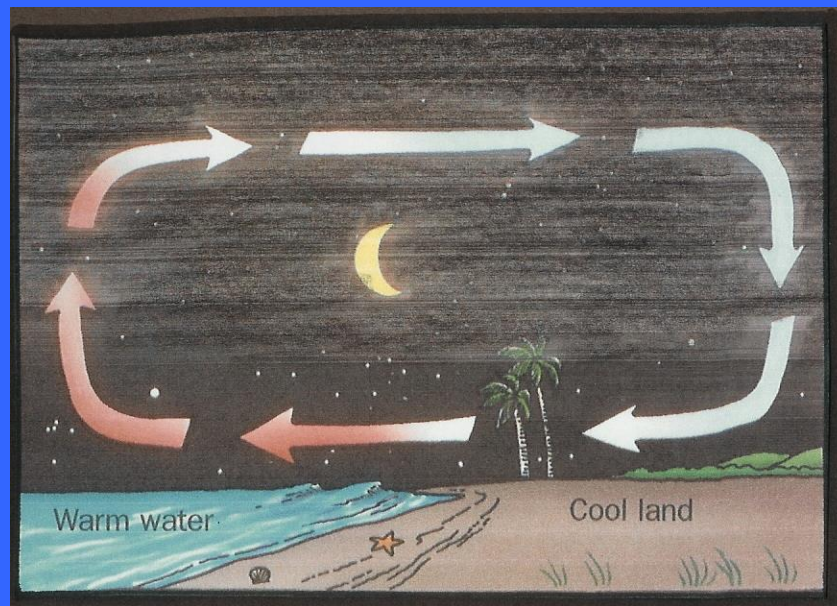
Feeling really hot sitting next to a campfire

Define **Jet Stream**.

What is a long
narrow current of
very strong winds in
the upper
troposphere?



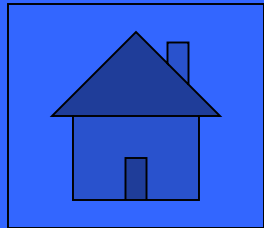
Identify and describe what is happening in this picture.



What is a **land breeze**?

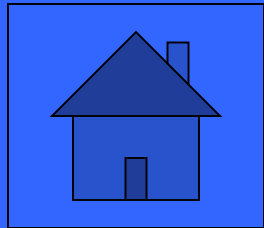
The flow of air from
land to water.

(happens at night)



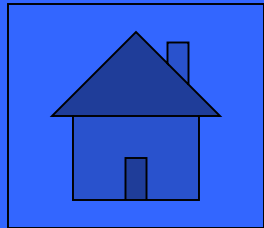
What causes
weather systems to
travel from *west to*
east across the
United States?

What are the westerlies and jetstream.



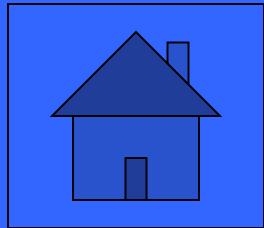
What is the main
cause of surface
ocean currents?

What is wind



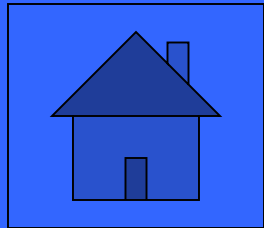
What is the main cause of
wind?

What is the uneven heating
of the earth's surface



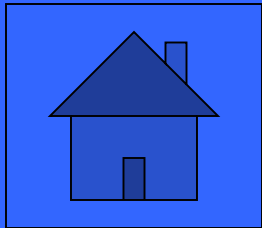
Give the name and location of the layer of the Earth's atmosphere where most weather occurs.

What is the
troposphere.



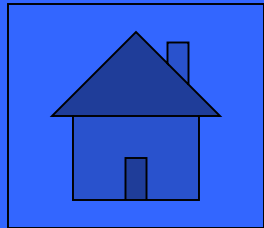
What causes **air**
pressure?

The weight of the
air above pushing
down.



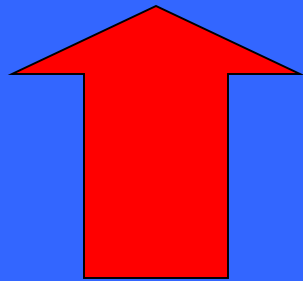
Describe the
weather result
during a low
pressure.

What is cloudy
skies, possible
rain/snow?



Describe the
temperature and
motion of air over a
hot surface and cold
surface?

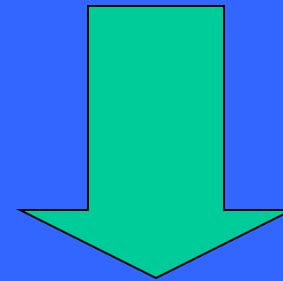
What is
a hot
surface



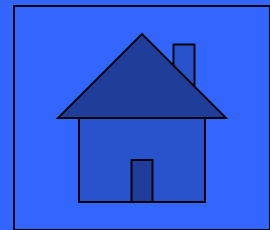
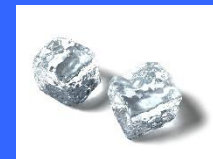
Air
move up



What is
a cold
surface



Air moves
down



Look at the weather map.

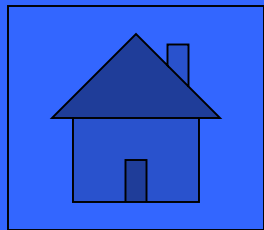
Use the symbols on the map to **Describe** what Mrs. Miller can expect the weather to be like in NJ in 1 day, 2 days, and 3 days.



Day 1: rainy & cloudy

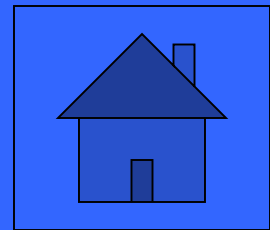
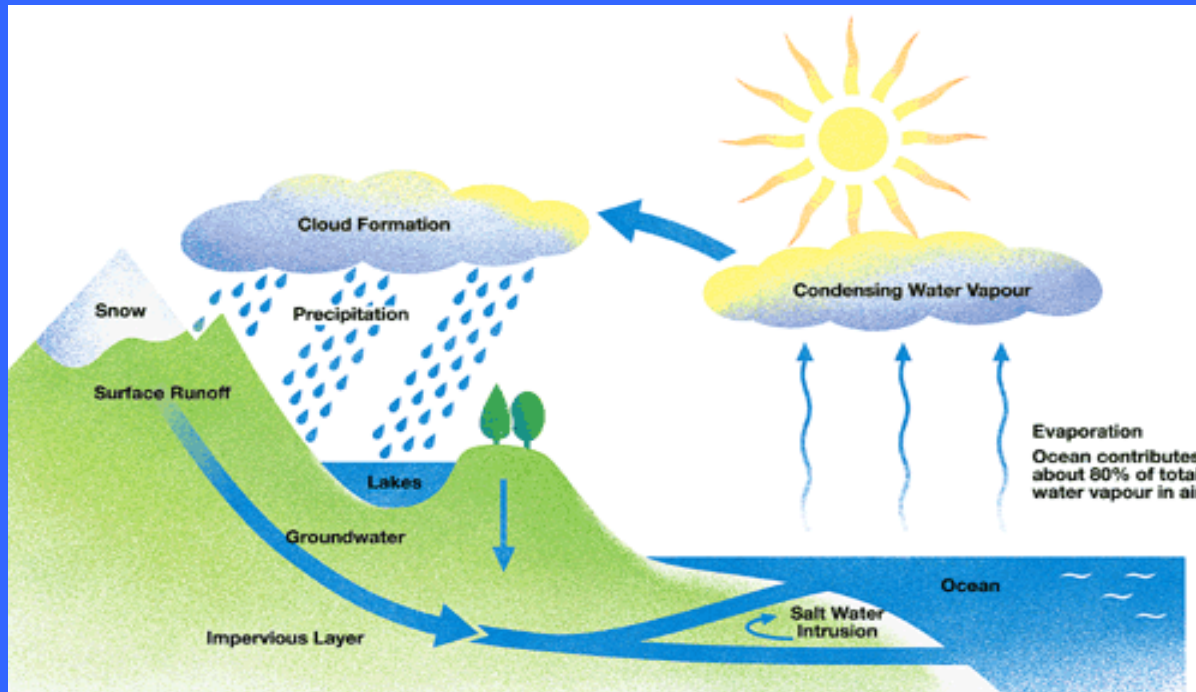
Day 2: Clear skies

Day 3: cooler and
maybe stormy (cold
front)



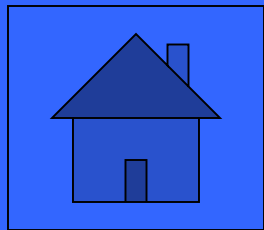
What do we call the
movement of water
through the
environment?

What is the water cycle?



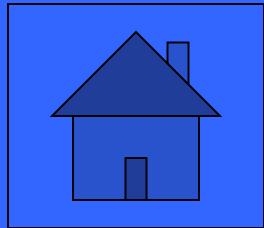
The process by
which water
changes from a
liquid to an invisible
gas called water
vapor.

What is
evaporation?

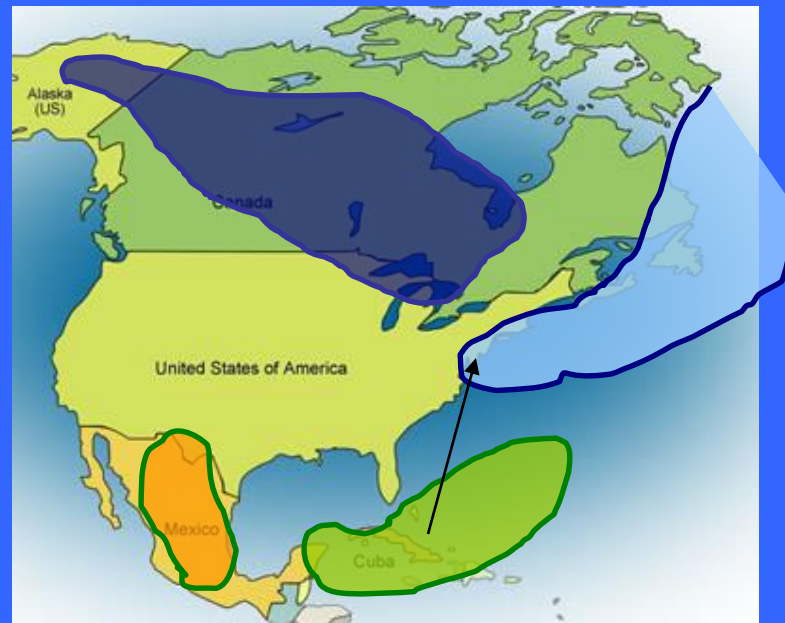


When warm water vapor rises and releases heat, what process occurs to form *clouds*?

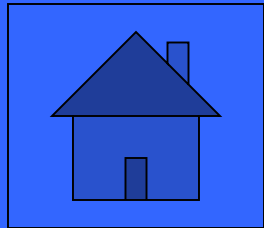
What is
condensation?



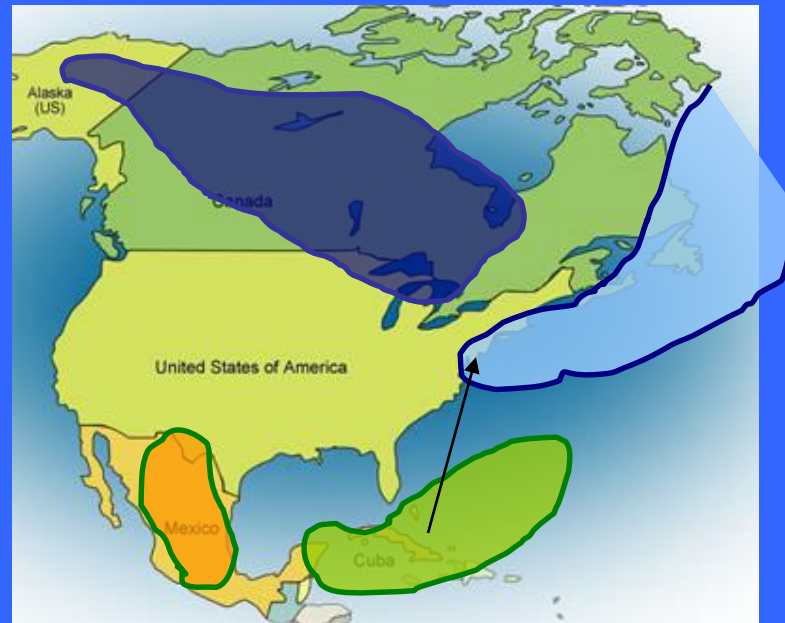
If the wind is blowing in the direction of the arrow, what type of air would be carried to New Jersey?



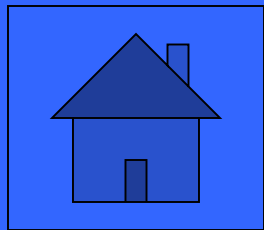
What is a
warm, moist
air mass?



Which two air masses would contain polar, chilly air?

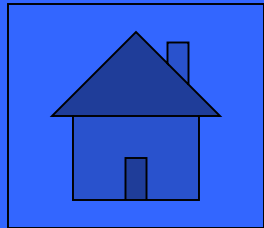


What is
the **dark blue** and **light**
blue air masses?



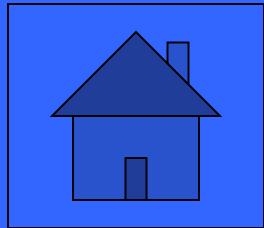
Define a vortex.

What is the
movement of liquids
or gases in a spiral
around a central
axis?



A disturbance in the earth's atmosphere that involves lightning, thunder, and sometimes gusty surface winds with heavy rain and hail.

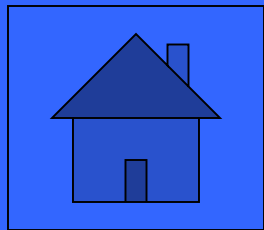
What is a
thunderstorm?



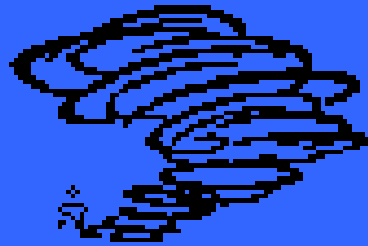
Describe a hurricane
and what causes it to
form.



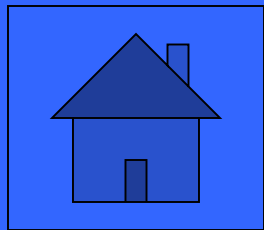
What is a massive rotating storm that forms over warm, tropical waters.



Describe
what causes a
tornado to form.



What is when air masses
of very different
temperature and humidity
conditions meet.
(happen over land & form
from thunderstorms)



In what ways are a
hurricane and tornado
alike?

What is they both
contain winds that
spiral very rapidly?

