



Air Masses Interactive Activity - PK - 2020-2021

Questions

Responses

74

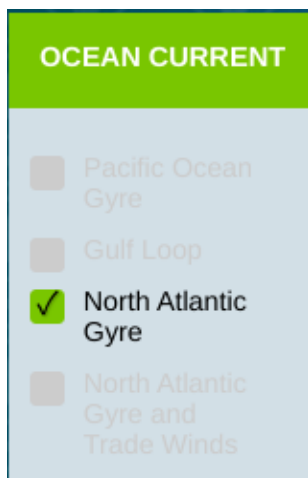
Total points: 10

Air Masses Interactive Activity

1. Go to this website: <https://ssec.si.edu/weather-lab>
2. Click "LAUNCH THIS APP"
3. Answer the questions below while interacting with the app.

This form is automatically collecting email addresses for Wappingers Central School District users. [Change settings](#)

Check "North Atlantic Gyre" under the ocean current list on the left side of the website. (Gyre is pronounced like wire, but with a "g" instead of a "w".)



1. In the white text box that appears, what direction does it say that the North Atlantic Gyre moves? *





- North to South
- East to West
- Clockwise
- Counterclockwise

2. In the white text box that appeared, what temperature does it say that the North Atlantic Gyre is? *

- Cold
- Warm



Keep North Atlantic Gyre checked. Now, check mTropical for Air Mass 1 and mPolar for Air Mass 2. Then check "NEXT".

The screenshot shows two panels for selecting air masses. The top panel is titled "AIR MASS 1" and has four options: mTropical (checked), cTropical, mPolar, and cPolar. The bottom panel is titled "AIR MASS 2" and has four options: mTropical, cTropical, mPolar (checked), and cPolar.

3. If I live along the East Coast of the US I should... *

- Pack an umbrella, it's going to rain and be cloudy all day.
- Put on sunscreen, it's going to be bright and sunny!
- Hide in the basement, strong storms are coming up the coast.

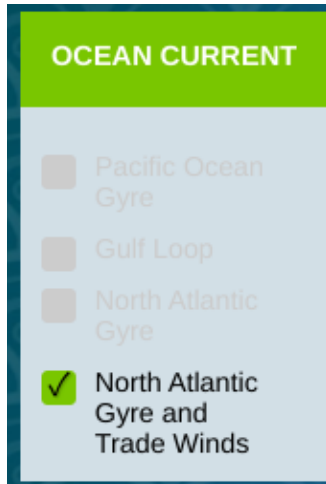
4. When you get the correct answer, you should see a text box that says "Well done! Warm moist air is carried up by the North Atlantic Gyre along the coast to meet cool moist air coming down from the North Atlantic." Where the two air masses meet, what forms? *

- A cold front



- An occluded front
- A stationary front

Click, "RESET," and then check "North Atlantic Gyre and Trade Winds."



5. Look at the white text box that appears when you check "North Atlantic Gyre and Trade Winds." North Atlantic trade winds occur as air moves around the Earth. The North Atlantic trade winds flow *

- From the equator towards the North Pole
- From the North Pole towards the equator
- From the equator towards the South Pole
- From the South Pole towards the equator

Keep "North Atlantic Gyre and Trade Winds" checked. Now check "mTropical," and then check



AIR MASS 1

- mTropical
- cTropical
- mPolar
- cPolar

6. If I live along the East Coast of the US I should... *

- Put on shorts and a t-shirt, it will be nice and sunny.
- Review my hurricane plan with the family.
- Put on a wooly sweater.

7. When you get the correct answer, you should see a text box that says, "Well done! Warm moist tropical air is carried by winds blowing across the Atlantic from Africa (called Trade Winds)." This creates the following progression: *

- tropical disturbance --> tropical storm --> cycle or hurricane
- cycle or hurricane --> tropical storm --> tropical disturbance
- tropical storm --> cycle or hurricane --> tropical disturbance
- tropical storm --> tropical disturbance --> cycle or hurricane

Click "RESET." Then, click "North Atlantic Gyre," "mPolar," and "cPolar." Afterwards, click



WEATHER LAB

Weather Lab is a tool to help visualize how North America's weather is formed. This lab is designed to model the complex interactions between air masses and ocean currents, but like all models it represents probable outcomes. Each prediction you make is for possible outcomes during Spring.

OCEAN CURRENT

- Pacific Ocean Gyre
- Gulf Loop
- North Atlantic Gyre
- North Atlantic Gyre and Trade Winds

AIR MASS 1

- mTropical
- cTropical
- mPolar
- cPolar

AIR MASS 2

- mTropical
- cTropical
- mPolar
- cPolar

8. If I live in New England, I should... *

- Check which route I take to school, there might be flooding and heavy rains.
- Put on sunglasses, it's going to be a bright and sunny day.
- Hide in the basement, tornados are coming.

9. When you get the correct answer, it will say "Well done! Cold dry air, coming from the Arctic and Canada meets cool moist air carried by the North Atlantic Gyre. " What occurs when these two air masses meet? *

- Tornados
- Light rain



Nor'easters and heavy rain

10. Where does weather seem to occur? *

- In the middle of air masses
- Where air masses meet
- It occurs randomly

11. Create one more weather system. Tell me the order that you picked and the type of weather that occurred in what area of the country. *

Long answer text

