Activity 5

Climatic Divisions and Climographs

Answer the following questions by using the larger maps and climographs on the map sheet *Geographic Perspectives of North Carolina's Climate.*

1. How many climatic divisions are there in North Carolina? __________

2. In which climatic division do you live? _____________________________

3. Which climatic division has the most counties in it? ________________

4. Name them.

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5. Which climatic division has the fewest counties in it? ________________
6. Name them.

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

7. According to the climographs of typical temperature and precipitation patterns, which climatic division does not have any months with an average temperature above 70°F? ____________________________

_________________________________________________________________________

8. What is the reason for this? ____________________________

_________________________________________________________________________

9. Which climatic division has the lowest July average temperature? ____________________________

_________________________________________________________________________

10. How many climatic divisions have months in which less than three (3) inches of precipitation are received? ____________________________

_________________________________________________________________________

11. Name them.

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

12. Choose a region with a climate that is not like your climate. What economic activities might you expect to find there? ____________________________

_________________________________________________________________________
Activity 6

Temperature

Answer the following by using the maps dealing with temperature on the map sheet Geographic Perspectives on North Carolina's Climate.

1. In what region (Coastal Plain, Piedmont, Mountains) do the coldest January average temperatures occur? ________________________________

2. Name the counties in which January average temperatures of 38 °F or lower occur.
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3. In what region do the warmest January average temperatures occur? ________________________________

4. Name the counties in which January average temperatures of 44°F or higher occur.
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5. In what range of January average temperatures is the town/community where you live?

6. In what region do the warmest July average temperatures occur?

7. Name the counties in which July average temperatures of 79°F or higher occur.

8. In what region do the coolest July average temperatures occur?
9. Name the counties in which July average temperatures of 71°F or less occur.

__________________

__________________

__________________

10. What helps the Coastal Plain region have higher temperatures in the winter than the Mountain region has?

__________________

11. Why does it get so cold in the Mountain region?

__________________

12. What are heating degree days (HDD)?

__________________

13. How many heating degree days are there on a winter day when the average temperature is 20 °F?

__________________

14. What region of North Carolina has an annual average of 3000 HDD or less?

__________________

15. What are cooling degree days?

__________________

16. How many cooling degree days are there on a summer day when the average temperature is 80 °F?

__________________
17. In what region of the state would you have to spend the least for air conditioning?  

18. Why isn't it as warm along the coast in summer as it is farther inland?  

19. Where do most days with temperatures over 90°F occur?  

20. In which area would you like to live? Why would you like to live there?
Activity 7

Precipitation

Answer the following by using the maps dealing with precipitation on the map sheet Geographic Perspectives of North Carolina's Climate.

1. What climatic division receives the greatest amount and the smallest amount of precipitation? ______________________________________

2. What counties in this climatic division receive the greatest amount of precipitation?
   ______________________________________
   ______________________________________
   ______________________________________
   ______________________________________
   ______________________________________

3. How much precipitation do they receive? __________________________

This diagram helps explain why some counties receive so much precipitation.

[Diagram: Orographic Lifting of Air]

Water vapor condenses to form clouds and rain.

Air cools as it rises.

Air wars as it descends.

The air is dry.

OROGRAPHIC LIFTING OF AIR
4. What is this process called that "enhances the yearly precipitation totals?"

5. What counties in this same climate division receive the smallest amount of precipitation?

6. How much precipitation do they receive?

7. Which one of North Carolina's largest cities is in one of these counties?

8. How much precipitation does the county where you live receive?

9. Has it ever snowed where you live?

10. How much snow does your county receive on average?

11. What region of North Carolina receives the greatest amount of snow?

12. Which counties receive the greatest amount of snow?

13. How much snow do they receive in a year (on average)?
14. What region receives the least amount of snow (on average)?

15. How much snow does that region receive (on average)?

16. How much snow falls on parts of the Southern Mountains; the Southern, Central, and Northern Piedmont; and the Northern Coastal Plain climatic divisions?
Activity 8

Growing Season

Answer the following by using the map "Length of Growing Season" on the map sheet Geographic Perspectives of North Carolina's Climate.

1. The length of the growing season is the number of days between the last frost at the end of winter and the first frost the next fall. What is the length of the growing season in the following counties?

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>GROWING SEASON</th>
<th>CLIMATE DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashe</td>
<td></td>
<td>Northern Mountains</td>
</tr>
<tr>
<td>Macon</td>
<td></td>
<td>Southern Mountains</td>
</tr>
<tr>
<td>Warren</td>
<td></td>
<td>Northern Piedmont</td>
</tr>
<tr>
<td>Harnett</td>
<td></td>
<td>Southern Coastal Plain</td>
</tr>
<tr>
<td>Davidson</td>
<td></td>
<td>Central Piedmont</td>
</tr>
<tr>
<td>Bertie</td>
<td></td>
<td>Northern Coastal Plain</td>
</tr>
<tr>
<td>Union</td>
<td></td>
<td>Southern Piedmont</td>
</tr>
<tr>
<td>Wayne</td>
<td></td>
<td>Central Coastal Plain</td>
</tr>
<tr>
<td>Brunswick</td>
<td></td>
<td>Southern Coastal Plain</td>
</tr>
</tbody>
</table>

2. What is the length of the growing season in the county where you live?

3. If you wanted to live where the growing season was the longest, to what county would you move?

   ______________________________________________________

   ______________________________________________________

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   ______________________________________________________
Activity 9

**Hurricanes and Tornadoes**

Answer the following by using the map "Hurricanes and Strong to Violent Tornadoes" on the map sheet *Geographic Perspectives on North Carolina's Climate*.

1. **In what years did hurricanes enter North Carolina?**
   
   
   
   
   
   
   
   

2. Almost all North Carolina hurricanes occur in which geographic region?

   

3. **In what directions do most North Carolina hurricanes move?**

   

4. **What effect do hurricanes have on coastal development?**

   

5. **Is there any geographic region of our state that did not experience a tornado from 1950 to 1986?**

   

6. **What is the name of the scale on which tornado intensity is measured?**

   


7. How are the weakest tornadoes classified on this scale?

The most violent? __________

8. During that same period how many F5 tornadoes occurred in our state?

9. How many force 4 tornadoes did North Carolina experience from 1950 to 1986?

10. Almost all F4 tornadoes occurred in what geographic region?

11. What is the only county in the Piedmont in which an F4 tornado has occurred?

12. Did any tornadoes occur between 1950 and 1986 in the county where you live? (Remember, the map only shows where the tornadoes began. Your county may have experienced a tornado even though there is no dot on the map in your county. You will need to ask your teacher or any other person who has lived in your county during that period of time.)