

Name: \_\_\_\_\_

Weather

Date: \_\_\_\_\_ Period: \_\_\_\_\_

The Physical Setting: Earth Science

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## Cyclonic Weather

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### CLASS NOTES

- Hurricane - \_\_\_\_\_  
\_\_\_\_\_
- Hurricane Statistics
  - Largest of all the storms
  - Approximately \_\_\_\_\_ per year
  - Nearly \_\_\_\_\_ deaths per year
- Saffir-Simpson Scale - \_\_\_\_\_  
\_\_\_\_\_

Strength	Wind Speed	Storm Surge
Category 1	74 - 95	
Category 2	96 - 110	6 - 8
Category 3		9 - 12
Category 4	131 - 155	13 - 18
Category 5	> 155	

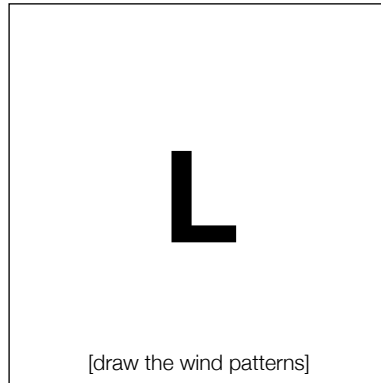
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# Cyclonic Weather

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- Hurricane Dangers

- Severe winds from \_\_\_\_\_ mph
- Wind direction is \_\_\_\_\_ and \_\_\_\_\_



- Storm Surge - \_\_\_\_\_  
\_\_\_\_\_

- Hurricane Formation

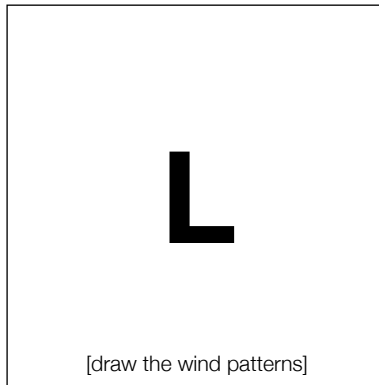
1. The Sun heats up ocean water [especially near the equator]
2. By the end of the summer, ocean temperatures reach into the 80's
3. A \_\_\_\_\_ moves westward off of Africa and into the Atlantic Ocean
4. When upper wind velocities are low, thunderstorms are given a chance to gain strength
5. The fast rising air [supplied by the warm ocean] allows the thunderstorm to gain strength
6. As it grows, Earth's \_\_\_\_\_ causes it to spin counterclockwise [Coriolis Effect]
7. As they build thunderstorms change to \_\_\_\_\_, then a \_\_\_\_\_, and finally a \_\_\_\_\_

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# Cyclonic Weather

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- Tornado - \_\_\_\_\_  
\_\_\_\_\_
- Tornado Statistics
  - Most violent storms
  - Approximately \_\_\_\_\_ per year
  - Nearly \_\_\_\_\_ deaths per year
- Tornado Dangers
  - Severe winds from \_\_\_\_\_ mph and above
  - Wind direction is \_\_\_\_\_ and \_\_\_\_\_



- Tornado Formation
  1. Develop from an intense \_\_\_\_\_
  2. Heating is very intense and warm air \_\_\_\_\_ in strong convection currents
  3. The rising air causes a \_\_\_\_\_ pressure center
  4. As air rushes into the center it starts to spin upward

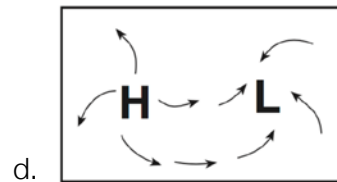
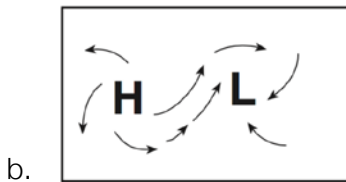
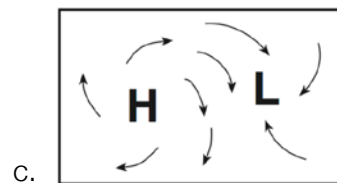
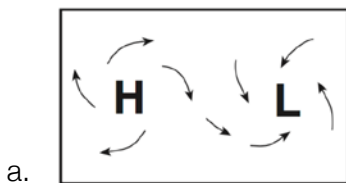
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## PART I QUESTIONS: MULTIPLE CHOICE

- How does air circulate within a cyclone (low pressure area) in the Northern Hemisphere?
  - counterclockwise and away from the center of the cyclone
  - clockwise and away from the center of the cyclone
  - counterclockwise and toward the center of the cyclone
  - clockwise and toward the center of the cyclone
- Which map best represents the surface wind pattern around Northern Hemisphere high-pressure and low-pressure centers?



- Which map correctly shows the wind directions of the high pressure and low-pressure systems?

