

Science  
Study Guide  
Semester 2

**Directions:** On a separate sheet of paper define the following words using complete sentences.

1. Thunderstorm
2. Air mass thunderstorm
3. Sea breeze thunderstorms
4. Frontal thunderstorms
5. Supercell
6. Downbursts
7. Fujita tornado intensity scale
8. Tropical cyclones
9. Tornado
10. Hurricane
11. Eye
12. Eyewall
13. Saffir-Simpson hurricane scale
14. Storm surge
15. Droughts
16. Heat waves
17. Cold wave
18. Wind chill index
19. Thunderstorms
20. Typhoon
21. Blizzard
22. Wind
23. Stepped leader
24. Spider lightning
25. Return stroke

**Directions: On a separate sheet of paper answer the following questions using complete sentences.**

1. Describe a damaging thunderstorm wind.
2. During what stage of a tropical cyclone does an eyewall develop?
3. Describe the development of hail.
4. What weather hazards involves a lack of moisture?
5. What factor makes a thunderstorm severe?
6. Which oceans would experience a tropical cyclone?
7. Compare and contrast a hurricane and a tornado.
8. What would work against the development of a thunderstorm?
9. Flooding is most likely to take place because of rains associated with what type of front?
10. What is the first stage of a lightning bolt?
11. What process does a heat wave involve a high pressure system that causes air to sink and warm?
12. What percentage of tornadoes are classified as an F4 or F5 on the Fujita tornado scale?
13. Which way do hurricanes rotate in the Southern Hemisphere?
14. What weather events are cold waves most often associated with?
15. Why are cold fronts more likely to produce severe thunderstorms than warm fronts?
16. What are extremely powerful thunderstorms that develop intense, rotating updrafts called?
17. What is it called when electricity is caused by a rapid rush of air in a cumulonimbus cloud?
18. What are violent downdrafts that are concentrated in one area called?
19. What are the powerful downdrafts that affect an area of less than 3 km called?
20. What is precipitation in the form of lumps or balls of ice called?
21. What are the intense updrafts and downdrafts that characterize severe thunderstorms the result of?
22. Why does flooding often occur?
23. Hail forms in part because of the presence of what?
24. What is a tornado?
25. Describe how a tornado forms.
26. During what time of the year do most violent tornadoes form? Explain why.
27. Where in the United States do many tornadoes occur? Explain why.
28. The Fujita Scale classifies tornadoes according to what criteria?
29. What is the wind speed of the most violent tornadoes on the scale?
30. How long would an average F3 tornado last?