

Predicting Severe Weather Advanced Guided Notes

Directions: Preview the notes before reading the lesson. As you read the lesson, fill in the guided notes.

**Only complete this section of notes if you are taking the course for Advanced credit.*

1. Predicting Weather—Rain or Shine

Talk Like a Scientist: Record any key terms and definitions that are unfamiliar to you.

Key Term(s)	Definition(s)

2. Weather Warnings

Focus Question: How do you know when severe weather is coming?

Complete the table to describe four ways to be alerted about severe weather.

Alert Source	Description
Local Weather Station	
Emergency Alert System (EAS)	
Wireless Emergency Alerts (WEAs)	
NOAA Weather Radio (NWR) [®]	

3. A Recipe for Severe Weather

Focus Question: What physical factors lead to the formation of severe weather?

Complete the table to describe the factors and steps needed to form each severe weather event.

Severe Weather	Factors/Steps for Formation
Thunderstorm	
Tornado	
Hurricane	
Flooding	

Winter Storm	
Drought	

4. Weathering the Storm

Focus Question: What are the special characteristics of a hurricane?

- Describe how warm waters fuel hurricanes.

Complete the table by adding the wind speeds (wind scale) for each category of hurricane.

Category	Wind Speeds (Wind Scale)
Category 1	
Category 2	
Category 3	
Category 4	
Category 5	

- What category represents the most severe hurricane?

5. Predicting Severe Weather

Focus Question: How can weather data help you explain severe weather events?

- Describe the relationship between air pressure and hurricane strength.
- What is one factor that could cause a hurricane to strengthen?
- What is one factor that could cause a hurricane to weaken?
- Describe some limitations of weather models.

6. The Future of Forecasting

Focus Question: How can weather forecasting be improved?

- What is a weather forecast?
- Why are weather forecasts important?

- How could technology help mitigate (reduce) the impacts of natural disasters?

7. Summary and Assessment

Stop. Set a timer for two minutes and review your notes. Next, in 20 words or less, write a summary to describe what you learned in this lesson. Challenge: Use at least three key terms from the lesson in your summary.

Summary