

CLASSROOM ACTIVITY

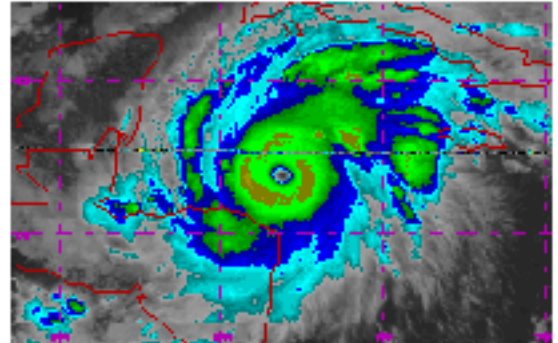
REMOTE-SENSING ACTIVITY

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Hurricane Tracking from a Safe Distance

Middle School Activity

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Purpose:

To track a hurricane and use mainland weather to predict its path.

Materials:

- * Hurricane tracking map
- * Satellite images of approaching hurricane
- * Weather maps

The Story:

You are a hurricane expert. Your job is to track approaching hurricanes, and alert the public about possible danger. If your area could be hit by a hurricane in the next 24 to 36 hours, it is your job to announce a hurricane watch. When a hurricane is probably going to hit your area in 24 hours or less, you announce a hurricane warning. When a hurricane warning is announced, people take immediate action. They begin boarding up windows, evacuating low-lying areas, and setting up shelters. Since these actions cost a lot of money in urban areas. You and other hurricane experts are careful not to announce warnings too early. However, you must not issue warnings too late!

You are the hurricane expert for New Orleans, Louisiana. You have been tracking the seventh hurricane of the season for the past four days. The table below shows the path so far of the approaching storm. Watch it carefully. You are responsible for issuing watches and warnings.

Procedure:

Since this storm may be a threat to New Orleans, you decide to plot its path on a [hurricane tracking map](#). Number each day and indicate A.M. or P.M. as you plot each position.

Connect the dots with a dashed line (- - -) when the maximum wind speed is between 39 and 73 miles/hr (tropical storm). Use a solid line if the maximum speed is 74 miles/hr or more (hurricane).

Use the path of the storm for days one through four to predict where and when hurricane #7 will hit the United States mainland. You may want to compare your prediction with someone else's prediction. Change your predictions is necessary.

If it becomes necessary, be sure to announce a hurricane watch or warning for New Orleans. After making your prediction, you will continue to receive more tracking data. Satellite data for

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days five and higher, as well as United States weather maps are available here after you make your prediction. ([More Information](#))

Hurricane #7 - Tracking Data

Day	LAT	Lon	TIME	WIND	PR	STATUS
1	11.40	-37.50	0900Z	45	1000	TROPICAL STORM
1	12.50	-41.10	2100Z	65	987	HURRICANE-1
2	12.90	-45.20	0900Z	80	978	HURRICANE-1
2	13.70	-48.50	2100Z	90	970	HURRICANE-2
3	14.40	-51.30	0900Z	90	970	HURRICANE-2
3	15.70	-54.40	2100Z	125	944	HURRICANE-4
4	16.10	-57.10	0900Z	130	939	HURRICANE-4
4	16.50	-59.90	2100Z	115	956	HURRICANE-4

Now use [Satellite Tracking Data](#) to adjust your predictions. Continue this process day-by-day until the hurricane hits land. Each time you get new tracking data, check and revise your prediction. Announce or cancel watches or warnings as needed. Be ready to discuss and answer the questions below during a "debriefing session" after the hurricane has come ashore.

Questions to consider during the debriefing session:

1. Did this hurricane form where most other hurricanes form? Explain.
2. Why did this hurricane move from east to west over the four days? Explain in terms of Earth wind patterns.
3. Did you have to change the warning area before the storm hit land? If so, try to explain why you changed the area.
4. How did the United States [weather map](#) influence your predictions?
5. What [features](#) over the United States mainland were most important in steering this hurricane as it moved inland?

Conclusion:

You have been asked to appear on NBC's *TODAY Show* to explain the movement of the hurricane. In particular, what factors were most helpful to you in predicting its destructive path. Since you will have only one minute to give your answer, you decide to mention two factors and then explain the more important one.

Write your notes on a 3 x 5 card. Be sure to list two factors that helped you predict the path and explain why one of the two factors is a better predictor.