



## Track Hurricane Destruction

2025 NHERI O.H. Hinsdale Wave Research Laboratory at Oregon State University

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### ● Summary

Students will be able to understand why hurricanes are becoming more deadly over time and the impact humans have had on them. Students will utilize a hurricane tracker and hopefully understand the impact of current technology on protecting communities.

### ● Engineering Connection

This relates to engineering because students are collecting data about hurricanes and using that data to understand trends. Students will understand some mitigation techniques and discuss how those have affected communities.

### ● Audience

6-8<sup>th</sup> grade

### ● Lesson Objectives

- Create table and fill it out to understand the importance of proper data collection and ability to interpret data
- Understand/discuss importance of proper infrastructure by explaining how hurricane effects can be avoided/lessened

### ● Educational Standards

- MS-ESS3-2. Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects

### ● Material List

- Computers/lpads (Can be individual or one per a couple students)
- Worksheet (as attached below)
- Writing utensils

### ● Introduction

Students will watch a video to get a brief understanding about hurricanes and why they are so important to learn about: Hurricanes 101: <https://youtu.be/LIXVikDkyTg>

● **Procedure**

Students will use <https://coast.noaa.gov/hurricanes/#map=4/32/-80> to fill out the following information in the chart below. If data is missing to fill out these storms, then they can use the internet, but must include the link from where they found the information.

<b>Example:</b> Name of Hurricane	Year	Intensity	Cost	Location eye touched ground?	What was notable about this hurricane?	Where did you find this information?
Sandy	2012	3	88.5 B	Brigantine, New Jersey	Cause lots of flooding and destruction in the northeast.	

After completion of this, the teacher will go on to discuss how infrastructure can impact mitigation of hurricanes. For example, Hurricane Katrina and the levee breaking or looking at OSU's new experiment with 1:3 scale houses. Students should ask questions about how infrastructure in their area is prepared for hurricanes or what they would do in a hurricane situation.

● **Assessment**

After these forms are filled out the teacher will open the group up for open discussion. Asking students to list different hurricanes, writing down 10 of the storms the students had written down. The teacher will go on to discuss the importance of tracking the storms and how infrastructure impacts that.

● **Wrap-up**

Students will fill out an exit ticket or on a notecard the answers to these two questions:

- o What was the most important thing you learned today?
- o What question still remains in your mind?

## NSF NHERI 2025 Work Sheet

**Name:**

Name of Hurricane	Year	Intensity	Cost	Location eye touched ground?	What was notable about this hurricane?	Where did you find this information?

**Concept Question:** Which hurricane was most impactful on your community and why?