

CULMINATING LESSON **Taking Action**

Lesson at a Glance

As suggested in “At a Glance” in the beginning of this unit, you may want to teach Lesson 1 as a class, and then jigsaw Lessons 2-5 and use the Culminating Lesson for group presentations. The extended activity, which is a unit test may or may not be given.

Lesson Duration

Two 45-minute periods

Essential Question

This culminating lesson, reviews all of the previous EQs.

Related HCPS III Benchmark(s):

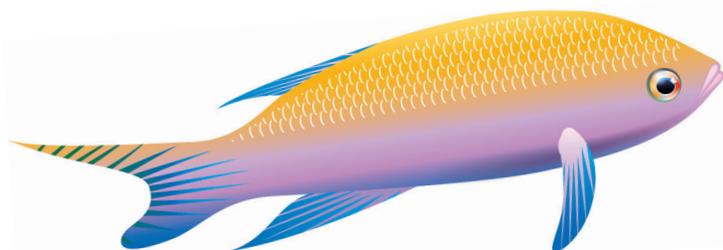
Science SC 3.2.1
Describe ways technologies in fields such as agriculture, information, manufacturing or communication have influenced society.

Key Concepts

- A hurricane is a storm with high speed winds and heavy rains which can lead to subsequent flooding, potentially damaging buildings and beaches.
- A hurricane forms from a tropical depression, and can be categorized as class 1, 2, 3, 4 and 5 based on strength of winds. NOAA technologies monitor hurricanes using reconnaissance airplanes, ships at sea, satellites, radiosondes, buoys and Doppler radar. When a hurricane forms, NOAA issues hurricane watches at 48 hours and warnings at 36 hours before hurricane conditions are expected. Key hurricane hazards include storm surge, inland flooding, and wind.

Instructional Objectives

- I can describe a hurricane, hurricane hazards, hurricane preparation, and hurricane detection technology.



Assessment Tools

Benchmark Rubric:

Topic		Science, Technology, and Society	
Benchmark SC.3.2.1		Describe ways technologies in fields such as agriculture, information, manufacturing, or communication have influenced society	
Rubric			
Advanced	Proficient	Partially Proficient	Novice
Compare how technologies in various fields have influenced society	Describe ways technologies in fields such as agriculture, information, manufacturing, or communication have influenced society	Identify, with assistance, ways that technologies have influenced society	Recall that technologies have influenced society

Assessment/Evidence Pieces

<p>Unit Several assessment strategies available for this unit</p> <ul style="list-style-type: none"> • Unit Assessment • Student created educational brochure
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Materials Needed

Teacher	Class	Group	Student
<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Materials for PSA (if necessary) 	<ul style="list-style-type: none"> • Hurricanes Unit Test (if using this assessment)

Instructional Resources

Teacher Answer Key: *Unit Test Answer Key*

Student Worksheet: *Hurricanes Unit Test*

Optional - Student Worksheet: *Unit Self-Assessment* (found at beginning of unit)

Lesson Plan

Lesson Preparation

- Make copies of the *Unit Test* for each student

I. *Unit Assessment*

- Review briefly with students how hurricanes form, hurricane hazards, hurricane preparation, and hurricane technology.
- Ask students to create an educational brochure with pencil/pen and paper that includes information on hurricane, hurricane hazards, hurricane preparation, and hurricane detection technology.
- Have students take the *Unit Test*. *This may serve as one form of assessment.*

CULMINATING LESSON Teacher Answer Key

Hurricanes Unit Test

Answer Key for Matching Section

1.	f
2.	a
3.	c
4.	b
5.	d
6.	e

Answer Key for Questions 1-5:

For Questions 1- 5, see Assessment Tools Section for appropriate answers and scoring rubric.



CULMINATING LESSON

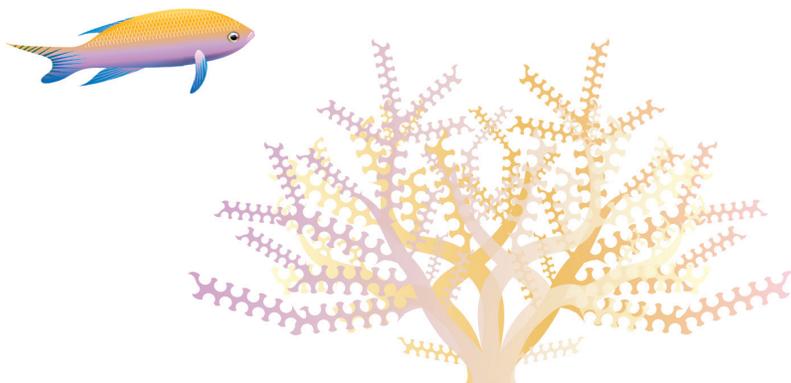
Hurricanes Unit Test

NAME: _____ DATE: _____

1. Identify and describe the features of a hurricane?

2. How is technology used to locate and keep track of storms and hurricanes?

3. How are hurricanes formed and classified?



4. Name three hurricane hazards.

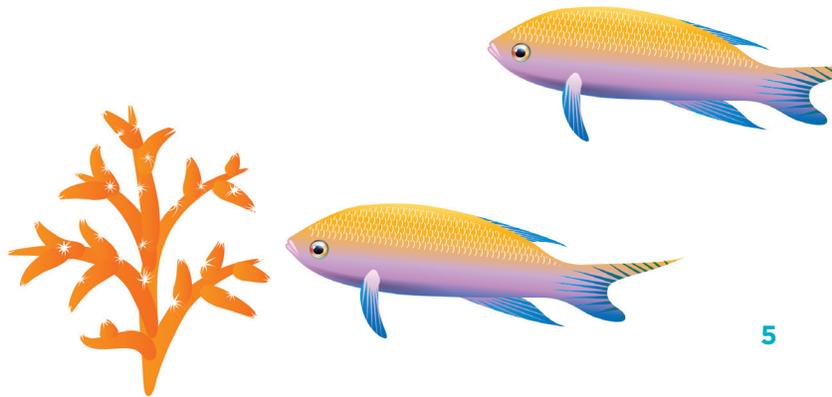
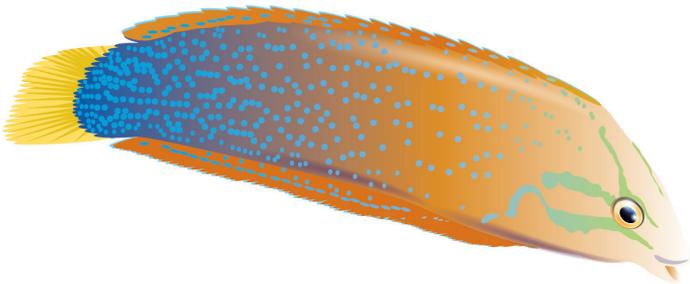
Describe one thing you could do to prevent yourself from getting hurt by each hazard.

a.

b.

c.

5. What should you do during a hurricane watch, hurricane warning, and hurricane?



6. **MATCHING:** Please put the letter of the definition on the blank next to the vocabulary word.

_____ 1. buoys	a. movable stations that observe the weather at their location and send the data via satellite or radio to weather stations
_____ 2. ships	b. a measuring device and radio transmitter attached to a balloon
_____ 3. satellites	c. devices that orbit the earth and take visual and infrared photographs
_____ 4. radiosonde	d. aircraft that are sent into the hurricane to take measurements directly when the hurricane is close to shore, but still over the ocean
_____ 5. reconnaissance aircraft	e. Radio waves sent out from radar stations on land
_____ 6. radar	f. stations in the ocean with equipment to measure different parts of the weather and sea conditions

