

## Science Time

### Program Content for May 24, 2017

Read the article 'Remote island in Pacific is awash in plastic' on page A1 of the Wednesday, May 17, 2017 edition of The Seattle Times.

#### **Objective**

- I can explain why and how much trash has accumulated on Henderson Island in the Pacific Ocean.

#### **Next Generation Science Standards (NGSS) connection**

##### **Disciplinary Core Idea - *Biodiversity and Humans***

- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value.

#### **Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.**

1. uninhabited
2. density
3. vortex
4. oceanographer

#### **Comprehension Questions**

1. How many pieces of trash were found on an uninhabited island in the middle of the Pacific Ocean?
2. Most of the garbage found on Henderson Island was made from \_\_\_\_\_.
3. Where is Henderson Island located?
4. What is the South Pacific gyre?
5. How long did scientists stay on Henderson Island to collect their research data?
6. What was the weight of trash estimated to be on Henderson Island?
7. What was the most common piece of trash found on the island?
8. Describe the research methods that scientists used to estimate the amount of trash washed onto Henderson Island each day.
9. How many pieces of trash accumulate on the island each day?
10. What is the cause of the build up of trash on island like Henderson?

#### **Prompts and Extensions**

1. View a video clip and images from Henderson Island [here](#). Embedded within this website is also a video interview of Dr. Jenn Lavers, the Australian scientist who conducted research on Henderson Island.
2. Read the recently published [journal article](#) about Dr. Jenn Lavers' research on Henderson Island.
3. Learn more about the UNESCO world heritage site Henderson Island including its history and scientific importance [here](#).

Science Time is posted to the Web on Wednesdays. Please share this NIE Science Time program with other teachers. To sign-up for the electronic edition for your class, please register

4. Ocean currents and gyres are responsible for much of the trash that accumulates on Henderson Island. Learn more about gyres and the plastic pollution problem in the oceans [5gyres.org](http://5gyres.org)
5. [The Ocean Cleanup](http://TheOceanCleanup.org) is an organization dedicated to cleaning up and removing plastic from the ocean. Visit their website to learn about this inspiring and ambitious project.

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