Why We Explore

Students discuss the meaning of exploration and places they would like to explore. They compare past and present-day explorers’ reasons for exploration to their own.

GRADES
7 - 12, Higher Ed

SUBJECTS
Earth Science, Oceanography, Geography, Physical Geography

CONTENTS
2 Videos

OVERVIEW

Students discuss the meaning of exploration and places they would like to explore. They compare past and present-day explorers’ reasons for exploration to their own.

For the complete activity with media resources, visit:
http://www.nationalgeographic.org/activity/why-we-explore/

Partner

ROSENSTIEL SCHOOL of MARINE & ATMOSPHERIC SCIENCE

DIRECTIONS

1. Define “exploration.”
Ask students how they define “exploration,” writing all ideas on the board. Next, ask: Who do you think of when you hear the word “explorer”? Explain that although explorers like Marco Polo or Christopher Columbus typically come to mind, there are many present-day explorers and anyone can be an explorer. In this activity students will investigate why people explore and consider places they would like to explore.

2. Brainstorm ideas about exploration.

Use a round robin approach to generate students’ ideas about exploration. Group 3-5 students at each table, and have them choose a scribe. Give each group a marker and a sheet of butcher paper with one of these questions on each paper:

- Why do people explore?
- What places have you explored? What did you learn?
- What places would you like to explore in or near your city or town? Why?
- What places would you like to explore in your home country? Why?
- What places would you like to explore outside of your country? Why?

At the teacher’s signal, each group brainstorms while the scribe captures the ideas. After two minutes, have students pass their butcher paper in a clockwise direction to the next table. Each group has one student read aloud the question and the ideas from the previous group, and then the group again brainstorms new ideas to add to the previous groups’ ideas, without repeating ideas. Allow each group to add their ideas for each question.

3. Have students mark their favorite ideas.

Give each student ten stickers or markers. Hang the sheets of butcher paper on the walls around the room. Give students five minutes to move around the room to read the questions and ideas on each sheet, marking their two favorite ideas for each question. As a class, discuss students’ ideas and favorites for “Why do people explore?” and “What places have you explored?” Call out the most-favored places they’d like to explore, and save these lists for a later activity.

4. Analyze past vs. present day exploration
Explain that it is now important to discuss how explorations have changed over time because exploration has continually shaped our world (e.g., spice routes and connecting cultures). Ask students: How might reasons for exploration have changed over time? What ways do you think exploration has shaped our world? (Hint: think about the voyages of past and present-day explorers, how technology has changed, and how commerce has changed). If students need ideas, allow them to do research online about these questions. Ask them to discuss and write down their ideas in small groups and then share them with the class. Discuss differences and similarities between groups’ ideas. Ask students to save their ideas because they will use them later when they are developing their own “micro-expeditions.”

5. Discuss the difference between exploration and expeditions.

Explain that so far we have focused on exploration, but let’s consider now how exploration might be different from an expedition. Ask: What’s the difference between exploration and an expedition? (With exploration, the goal is simply to find out more about a place. With an expedition, scientists or explorers have some background knowledge but seek evidence, or data, to help in answering specific questions. Expeditions also require substantial planning to ensure they are able to achieve this purpose.) Have students share their ideas with the class. Write down the ideas on butcher paper and keep them for use in Activity #2–Plan and Prepare for an Expedition—to help students keep the characteristics of an expedition clear in their minds.

6. Analyze the reasons behind present-day expeditions.

Have students analyze a present-day expedition. Explain to students that there is a place far from people, barely explored, and full of danger, that needs to be explored now because the risk is that it will soon be lost. There are places about 60 miles from Florida, on the islands called the Bahamas that fit this description—places called “blue holes.” Have students watch the video clip, Islands of Bahamas Blue Hole, to look for reasons why scientists wanted to explore the blue holes there. Have students answer these three questions in a paragraph for each:

- What is the purpose of this blue holes expedition? What do you think the scientists want to accomplish?
• Do you think the explorers/scientists on the Blue Holes Expedition would agree with your reasons for exploring from the brainstorming today? Explain. What additional reasons do they have for why they explore?

• How is the Blue Hole Expedition different than historical explorations? (Hint: think about available technology and scientific advancements as well as purpose.)

Conclude the activity by explaining that students will now focus in the next set of activities on the details of conducting an expedition, culminating in implementing their own micro-expeditions. They should keep their ideas from this activity in mind throughout the process to help them develop their plans.

Tip

Students can research citizen science opportunities that align with their exploration interests. Have them explore CitSci.org, iNaturalist.org, National Geographic Education Citizen Science Projects, or look for other opportunities in their local area.

Tip

To gain better insight into exploration and expeditions today, have students read the article “The New Age of Exploration”.

Informal Assessment

Have students summarize in writing their ideas for the questions in Step 4. Check for synthesis of ideas about exploration and a comparison of the class’ ideas with the approach to exploration in the video.

Extending the Learning

Show the short videos A Young Explorer and Why Water Exploration? in which Dr. Kenny Broad talks about why he liked to explore as a kid and where his interest in water exploration came from. Ask: What do you think is his motivation for exploration, past and present?

Students can research present-day explorers on the National Geographic Explorers website. Students can choose an explorer and determine the purpose of their explorations. Discuss whether the featured explorers changed students’ definitions of what it means to explore.
OBJECTIVES

Subjects & Disciplines

- **Earth Science**
  - Oceanography
- **Geography**
  - Physical Geography

Learning Objectives

Students will:

- list and assess ideas for why people explore, historically and currently
- brainstorm ideas for their own explorations
- analyze the purpose behind a Bahamas expedition

Teaching Approach

- Learning-for-use

Teaching Methods

- Brainstorming
- Discussions
- Multimedia instruction

Skills Summary

This activity targets the following skills:

- 21st Century Student Outcomes
  - Information, Media, and Technology Skills
• Media Literacy
• Learning and Innovation Skills
  • Communication and Collaboration
  • Critical Thinking and Problem Solving
• Geographic Skills
  • Asking Geographic Questions
• Science and Engineering Practices
  • Planning and carrying out investigations

National Standards, Principles, and Practices

IRA/NCTE STANDARDS FOR THE ENGLISH LANGUAGE ARTS

• Standard 12:
Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

• Standard 8:
Students use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

NATIONAL COUNCIL FOR SOCIAL STUDIES CURRICULUM STANDARDS

• Theme 3:
People, Places, and Environments

NATIONAL GEOGRAPHY STANDARDS

• Standard 4:
The physical and human characteristics of places

NATIONAL SCIENCE EDUCATION STANDARDS

• (5-8) Standard G-1:
Science as a human endeavor

• (5-8) Standard G-2:
Nature of science
• **(5-8) Standard G-3:**
  History of science

• **(9-12) Standard G-1:**
  Science as a human endeavor

• **(9-12) Standard G-2:**
  Nature of scientific knowledge

• **(9-12) Standard G-3:**
  Historical perspectives

**Preparation**

**What You’ll Need**

**MATERIALS YOU PROVIDE**

- Butcher paper
- Markers
- Colored sticker dots
- Masking tape

**REQUIRED TECHNOLOGY**

- Internet Access: Required
- Tech Setup: 1 computer per classroom, Projector, Speakers

**PHYSICAL SPACE**

- Classroom

**GROUPING**

- Large-group instruction
- Small-group work

**RESOURCES PROVIDED: UNDEFINED**

- A Young Explorer
- Why Water Exploration?
Background Information

Exploration has a broad definition but can be considered travel over new territory—undiscovered or new to the explorer—for adventure or discovery, or looking at something in a careful way to learn more about it. An expedition is a journey that requires planning and purpose setting, and is usually undertaken by a group of people, for a specific purpose, such as to explore a distant place or to do research.

Prior Knowledge

Recommended Prior Activities

- None

Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Part of Speech</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>expedition</td>
<td>noun</td>
<td>journey with a specific purpose, such as exploration.</td>
</tr>
<tr>
<td>exploration</td>
<td>noun</td>
<td>study and investigation of unknown places, concepts, or issues.</td>
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</tbody>
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For Further Exploration

Articles & Profiles

- National Geographic: Bahamas Caves
- NOAA Ocean Explorer: History Questions: Why Explore
- National Geographic Magazine: New Age of Exploration

Websites

- National Geographic: Blue Holes Project