

Learning objectives

- Students will investigate the character traits of an explorer.
- Students will contrast and compare historical and modern explorers.
- Students will review the 2014 Victoria Strait Expedition.
- Students will plan an expedition for a modern-day explorer.

Time required

50-70 minutes

Grades

4-8

Materials

- Atlases or online mapping tools such as Google Maps or ArcGIS online
- Explorer cards (7)
- World outline maps printed on 11 x 17 paper (if not using online tools)
- Access to the Internet
- Coloured pencils or pens

Set-up

Print seven large outline maps of the world or access an online mapping tool such as Google Maps. If you are using print maps, print and cut out the explorer cards. If you are doing this online, please provide students access to the explorer cards electronically.

Links to the Canadian National Standards for Geography

Essential Element 1: The World in Spatial Terms

- Location of major human and physical features on Earth
- Latitude, longitude and the global grid
- Major countries of the world

Essential Element 2: Places and Regions

- Perceptions of places and regions
- Political and historical characteristics of regions

Introduction

Ask your students to brainstorm the personality traits of people who chose a life of exploration, challenge and discovery, and what they think are the most important. Discuss why students may have selected these traits, and how these traits may benefit an explorer's career.

According to "A Profile of Greatness" in the audiobook *The World's 100 Greatest People*, the 10 characteristics of the achieving personality are:

1. Focus	6. Curiosity
2. Preparedness	7. Resilience
3. Conviction	8. Risk taking
4. Perseverance	9. Independence
5. Creativity	10. A sense of higher purpose

Display these traits for your students to see. Ask students to identify the ones that they think are the most connected to or indicative of explorers. Explain and expand as necessary, inviting discussion.

Ask students to make a list of explorers whose names they know (Jacques Cartier, Henry Hudson, Ferdinand Magellan, James Cook, Christopher Columbus, Marco Polo, etc.). Expand the class discussion by asking the students about *modern* explorers. Ask them to compare and contrast what it meant to be an explorer historically and what it means now. Focus on the role of an explorer in historical and modern society. Ensure that students consider how the career of explorer is viewed in today's society and how it would have been perceived in 1845.

Development

Display a world map at the front of the class either on paper or on screen. Divide the class into seven groups, and give each an atlas or Internet access as well as an explorer card. Have one representative from each group read their card to the rest of the class. Check for understanding by asking the following questions and having students stand up if they think their explorer is the answer to a question.

- Whose explorer is historical?
- Whose explorer is modern?
- Who has an explorer who wants to move higher? (climbs mountains)
- Which group has an explorer who wants to go with the flow? (explores water)
- Which group has an explorer that wants to go deeper? (explore the oceans)
- Which group has an explorer doesn't mind being cold? (explore polar regions)
- Whose explore is Canadian?

Summarize the discussion by listing some of ways the explorers on students cards did their exploring (dogsled, sled, ski, foot, submarine, sailboat, bicycle, horse, etc.).

Instruct each group, with the use of an atlas or online search engine, to complete the "challenge" on their explorer card. Once all groups have completed their challenge, have each share the answers with the class.

Essential Element 5: Environment and Society

- Limits and opportunities of the physical environment for human activities

Essential Element 6: The Uses of Geography

- Influences of physical and human features on historical events

Now, link these explorers to the 2014 Victoria Strait Expedition. Ask your students to review the information on cgeducation.ca/franklin. Ask your class to review the equipment, tools, maps, supplies, etc. that members of the 2014 expedition used to increase their chances of success. Refer to pages 13 and 88-91 from the December 2014 issue of *Canadian Geographic* for more information about the technology used in this year's search.

Conclusion

Explain to students that they are going to plan an expedition as a modern-day explorer. Instruct each group to plan an expedition to the location that corresponds with the number on their explorer card. Have them begin by choosing a start and end location:

- Group #1 – Mariana Trench
- Group #2 – Mount Everest
- Group #3 – Antarctica
- Group #4 – Circumnavigate the globe, starting in Sydney, Australia
- Group #5 – Amazon River
- Group #6 – From Chile to Alaska, by land
- Group #7 – Caves in Antarctica

Give each group either an 11" x 17" outline map of the world or direct them to an online mapping tool. Instruct them to locate their exploration site and to trace the path they are going to follow in red. Using their atlas or other Internet resources, have the students locate other relevant physical features. Instruct the students to create a table detailing the following:

Expedition site:	
Method(s) of transportation	
Tools/equipment	
Route (description of route travelled)	
Food and supplies	
Special guides	
Challenges	

Extend your geographical thinking

Geographical regions are places that have several features in common that make them distinct from other areas around them. Regions can be defined by physical, cultural or political properties. With this in mind, have students make a list of commonalities between the regions they explored. What factors make a region or location worthy of an expedition?

For more information about the search for Franklin's lost ships, please visit www.pc.gc.ca/eng/culture/franklin/index.aspx

Explorer cards

1: JAMES CAMERON

The director of *Titanic* and *Avatar* set the record for the deepest solo voyage underwater in 2012. James Cameron plunged into the Mariana Trench, a spot in the west Pacific known to be the deepest part of the world's oceans. Cameron's voyage took place inside the *Deepsea Challenger* — a 10.8-tonne, battery-powered sub that took seven years to build.

CHALLENGE: Locate the Mariana Trench on a world map. Provide its coordinates and show how to get there from your hometown.

2: REINHOLD MESSNER

The summit of Mount Everest, the tallest mountain in the world, is believed to have been first reached in 1953 by Edmund Hillary and Tenzing Norgay. In May 1978, Italian mountain-climber Reinhold Messner climbed Mount Everest without bottled oxygen — no small feat, since the air there has as little as one-third the normal amount of oxygen. Messner is also renowned for being the only person to climb all 14 of the world's 8,000-metre mountains.

CHALLENGE: Find Mount Everest on a map. What symbol does the cartographer use to show a mountain peak? What mountain range is Mount Everest located in, and what are the next two tallest mountains in this range?

3: WILL STEGER

Will Steger is an American with many titles — educator, author, photographer, lecturer and explorer, to name a few. In 1990, he famously led a team of five adventurers and 42 sled dogs on a crossing of Antarctica. Travelling by sled, ski and foot, they were battered by wind chills of -100 degrees Celsius and crossed mountain ranges as high as 3,475 metres. Seven months later, they reached the end of their journey — one that could not be repeated today due to the loss of land ice as a result of climate change.

CHALLENGE: Find a map of Antarctica. Using the scale, calculate the distance from the most eastern edge of the continent to the most western edge.

4: JESSICA WATSON

Jessica Watson isn't the only person to sail around the world solo, but when she left Sydney, Australia in October 2009 at age 16, she set out to become the youngest person to circumnavigate the globe unassisted. When the young Australian returned to Sydney 210 days later, critics said Watson didn't sail far enough into the Northern Hemisphere to set a record. Still, she won over a loyal fan base worldwide for her feat.

CHALLENGE: There are four hemispheres: the Northern, Southern, Eastern and Western hemispheres. What is the name of the lines that divide them? What hemisphere is Australia in? Which hemisphere do you live in?

5: ED STAFFORD

Ed Stafford, a former British Army captain, holds the Guinness World Record for being the first human ever to walk the length of Brazil's Amazon River. Stafford began walking down the Amazon in 2008 and didn't stop until two years later, on August 9, 2010, when he reached the Atlantic Ocean. The Amazon River runs for about 6,400 kilometres, starting as a stream in the Andes mountain range before running through some of the most dangerous and unexplored territory left on the planet.

CHALLENGE: A tributary (TRIH-byoo-tair-ee) is a stream or river that flows into a larger river. Make a list of several tributaries of the Amazon River. Name the watershed that the Amazon river drains into.

6: MIKAEL STRANDBERG

Mikael Strandberg is a renowned Swedish explorer who started his professional career in the early 1980s. He has cycled from Chile to Alaska, from Norway to South Africa, and from New Zealand to Cairo — a total of 90,000 kilometres over the course of 10 years. He exchanged his bicycle saddle for a horse saddle in 1997, travelling by horse 3,000 km across Patagonia. In 2004, he explored the unknown Kolyma River in north-eastern Siberia, and in 2011-12 he went to the opposite climatic extreme, conducting two expeditions to the desert of Yemen.

CHALLENGE: Patagonia is a region. What counties are found within the region? Why has it been given this name?

7: JILL HEINERTH

Jill Heinerth won The Royal Canadian Geographical Society's Ondaatje medal for exploration in 2013 for her incredible accomplishments in cave diving. She has swam further into underwater caves than any other woman and helped map caves from Antarctica to Russia and everywhere in between. In 2016, Heinerth will take part in the Sedna Epic Expedition, joining nine other women to snorkel across the Northwest Passage from Pond Inlet, in Nunavut, to Inuvik, Northwest Territories. This 3,000-kilometre journey will take 100 days.

CHALLENGE: Find the Northwest Passage on a map using coordinates and mark the route of the 2016 Sedna expedition. Research the origin of the name Sedna.