9 Who Are the Pilots of the Sea?

Marine Month IN CANADA

Materials

- *Seymour Narrows worksheet* (included)
- *Seymour Narrows answer sheet* (included)
- *Legend* (included)
- *3 Close-up Images from the Seymour Narrows Chart* (included)
- Highlighters and different coloured markers or pens

Extensions:

- Older students may select and research a waterway or harbour from a provided list, gathering information about its geography, depth profiles, tidal patterns, and potential hazards. They can also calculate the average tidal range for their chosen location, the safe clearance depth a vessel should maintain to avoid grounding during low tide, and the time required for a vessel to navigate through a narrow channel based on the vessel's speed.
- Students can research past and ongoing efforts to open passages for maritime travel and destroy natural hazards and barriers, such as the destruction of Ripple Rock which was previously located in the Seymour Narrows. Students can discuss the resulting impacts on maritime travel, the local environment, biodiversity and local industries.

Introduction

Maritime pilots play a crucial role in ensuring the safe navigation of vessels through challenging waterways. They possess specialised knowledge of local conditions and guide ships through dangerous or congested areas. In this activity, students will analyse a narrow water passage in British Columbia known for its strong tidal currents using the same information maritime pilots use to navigate it safely.

Warm up

Start by asking the students to share their thoughts on hazards that ships may encounter during their voyages. Write their answers on the board or on chart paper.

Guide the discussion to include hazards such as rocks, shallow areas, narrow passages, strong currents, changing tides, poor visibility, weather conditions, and other relevant factors.

Emphasise that maritime pilots must be aware of and navigate through these hazards to ensure the safety of the vessel and its crew. You can also share this video with students to provide more background information on pilots.

Student Activity

Begin the activity by explaining to students that they will be stepping into the shoes of maritime pilots and exploring the factors that influence safe navigation.

Explain that they will be analysing a narrow water passage called the Seymour Narrows, which is a five kilometre section of the Discovery Passage located between central Vancouver Island and Quadra Island. The Seymour Narrows are an average of 750 metres wide and can experience tidal currents up to 15 knots, a speed that can be dangerous to inexperienced boat operators and divers. Regular water turbulence poses a threat to navigation, hence the need for Maritime pilots who know local details such as depth, current strength and underwater hazards, and who can use this knowledge to safely guide a ship's passage.

Divide the students into small groups and provide each group with a *Seymour Narrows* Worksheet, the three *close-up images from the Seymour Narrows chart*, and a *legend*.

Explain that their task is to analyse this waterway by using the legend to decipher the information presented on the detailed nautical chart images and answer the questions provided. This is an essential task performed by maritime pilots who always pre-plan their routes to avoid hazards, while also considering things like the best and worst departure times, the amount of fuel that will be consumed and travel time.

Encourage the students to collaborate and discuss the information in front of them, and to ask questions about or research the information or icons that are unknown to them.

Circulate among the groups to provide guidance and answer any questions they may have.

Wrap up

Once the groups have completed the activity, ask groups to share their answers with the class.

As each group answers, encourage them to share their interpretations of the charts and any challenges they faced.

After reviewing the worksheet, open the floor for questions, comments, and discussion.

Conclude the activity by facilitating a class discussion to reflect on the importance of safe navigation, the many factors that influence safe navigation, and the unique challenges faced by maritime pilots.