



Fisheries and sustainability

Grade Level: K-12 (can be adapted for specific ages)

This project is designed to engage K-12 students in critical thinking about history, culture, sustainability, and the environment through the lens of Icelandic codfish. It integrates social studies, science, geography, and economics to foster a deeper understanding of global trade and environmental responsibility.

Driving Question:

How has the cod fishing industry shaped the economy, culture, and sustainability practices in Iceland, and what lessons can we learn to protect marine ecosystems today?

Project Overview:

Students will explore the historical and modern journey of Icelandic codfish, focusing on its economic, cultural, and environmental impact. Through this project, students will develop an understanding of sustainable fishing practices, the cultural significance of cod, and the global trade of this important resource.

Learning Objectives:

History and Culture: Students will investigate the history of cod fishing in Iceland, from the Viking era to modern times.

- Economics: Understand the codfish industry's contribution to Iceland's economy and how international trade has influenced its development.
- Sustainability: Explore the importance of sustainable fishing practices and how Iceland has addressed challenges related to overfishing.
- Science and Geography: Learn about the marine ecosystems where codfish thrive, and how human activity impacts these environments.
- Global Connections: Identify global trade routes and countries involved in the codfish trade.

Key Inquiry Questions:

1. Why was cod so important to the Vikings, and how did they preserve it?
2. How did the cod trade shape Iceland's relationship with other countries throughout history?
3. What is the Icelandic fishing quota system, and how does it help with sustainability?
4. How do modern fishing techniques impact marine ecosystems, and what are some environmentally friendly alternatives?
5. How does the fishing industry support communities in Iceland today?

Supporting video material:

Salted cod: Part 1, 2 and 3.



Examples of possible activities:

Research and Storytelling (History and Culture):

- Students will research the history of cod fishing in Iceland and create a timeline of key events, such as the introduction of salting methods and the Cod Wars.
- Students will then present their findings in a creative way, such as through a digital story, pod cast or video, depicting the life of an Icelandic fisherman from the Viking age to modern times.

Global Trade (Economics and Geography):

- Students will research global codfish trade identifying the countries involved in importing Icelandic fish. They will create maps showing trade routes and identify economic partners.
- Students will compare the economic impact of codfish trade on Iceland and its trading partners by exploring exports, imports, and the jobs created by the fishing industry.

Fishing Techniques and Sustainability (Science and Environment):

- Students will investigate different fishing techniques mentioned in the document (e.g., bottom trawling, gillnets, handlines). They will create models or illustrations of each technique and evaluate its environmental impact.
- In groups, students will propose a sustainable fishing method that minimizes environmental damage and supports marine life.

Community and Sustainability (Social Studies and Local Action):

- Students will conduct a case study of a fishing community in Iceland, exploring how cod fishing supports local jobs and culture.
- As an extension, students can investigate local fishing practices in their own community and compare them with Icelandic practices, proposing ways to improve sustainability in their local context.

Debate and Reflection:

- Students will participate in a debate about the challenges of balancing economic gain with environmental protection. One side will argue for the benefits of fishing as a key economic driver, while the other side will focus on the need to protect marine ecosystems.
- After the debate, students will write a reflection on what they believe is the best way to ensure that cod fishing remains sustainable while supporting local economies.



Final Project Presentation:

Students will present their findings in an exhibition that includes:

- A timeline of the cod fishing industry.
- Models or illustrations of fishing techniques.
- Maps of trade routes.
- A creative presentation on the history and culture of cod fishing.
- Proposals for sustainable fishing methods.
- Any other means students and teachers wish to use.

Assessment Criteria:

- **Inquiry and Research:** Depth of research and understanding of cod fishing history, economy, and sustainability.
- **Creativity and Communication:** Ability to creatively communicate findings through storytelling, models, and maps.
- **Collaboration and Critical Thinking:** Participation in group activities and thoughtful contributions to the debate and reflection.

Teacher's tips for Implementing the Project:

1. **Start with the Big Picture:** Begin with an introduction to the historical importance of cod in Iceland and globally. Use video clips or timelines to engage students from the start.
2. **Hands-on Learning:** Encourage students to model fishing methods (e.g., bottom trawling, handlining) using crafts or digital design. This keeps younger students engaged while teaching them important environmental lessons.
3. **Integrate Subject Areas:** Use the project to connect subjects like history, science, geography, natural sciences, and economics.
4. **Use Local Context:** Encourage students to draw parallels between Iceland's cod industry and their local fishing or agricultural industries. This can help them relate to the broader themes of sustainability and community support.
5. **Debate and Reflect:** Have students research and debate in groups to form opinions on fishing sustainability. This builds critical thinking and communication skills.