



Next Generation Science Standards

Lesson: [Surges and Seiches](#)

Activity: [Investigating Wind and Water](#) / [Storm Behavior](#)

Prior Knowledge Should Include:

- Waves are regular patterns of motion, which can be made in water by disturbing the surface. Waves of the same type can differ in amplitude and wavelength. Waves can make things move.
- Human activities affect global warming. Decisions to reduce the impact of global warming depend on understanding climate science, engineering capabilities and social dynamics.
- A variety of hazards result from natural processes; humans cannot eliminate hazards, but they can reduce their impacts.

Performance Expectations:

- MS-ESS3-2 Earth and Human Activity: Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate effects of such events.

Disciplinary Core Ideas:

- **ESS3. B Natural Hazards:** Mapping the history of natural hazards in a region, combined with an understanding of related geologic forces can help forecast the locations and likelihood of future events.

Practices:

- **Analyzing and Interpreting Data (4)** – Progresses to extending quantitative analysis to investigations, distinguishing between correlation and causation and basic statistical techniques of data and error analysis.

Crosscutting Concepts:

- **Patterns:** Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.

[Next Generation Science Standards](#)