# Ice Shove

Ice Shoves (also known as an Ice Push or even an Ice Tsunami if they are large) occur when strong winds or currents force loose ice from the water's surface to go on land. They may look like a slow motion frozen tsunami, but ice shoves are closer to icebergs than tsunamis in how they work. Ice shoves usually occur on inland lakes, and the larger the lake, the larger the shove and ice can pile up as high as 40 feet. Although the Great Lakes are more well known for this rate phenomenon, Idaho lakes can also host ice shoves. Students can use this phenomenon to explore air and water currents, or to engineer a solution to protect houses near a lake.

**Additional Resources:**

- Video: Payette Lake Ice Shove
- Lake Scientist: Ice Shoves

## Performance Standards

| 2nd Grade | 3rd Grade | 5th Grade | Middle School | High School |
|---|---|---|---|---|
| 2-ESS-2.3. Obtain information to identify where water is found on Earth and that it can be solid, liquid or gas. | 3-ESS-2.1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. | 5-ESS-2.1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. | MS-ESS-2.5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions. MS-ESS-2.6. Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates. | HS-ESS-2.2. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems. |