

# Trade and Transport

## From the Orchard to the Open Sea

Take a closer look at a supply chain as we explore how almonds travel from the orchard to the open sea and countries all over the world!

**1** In the orchard, mechanical tree shakers knock almonds to the ground, where they dry before they are swept into rows and picked up by machine. They are transported to processing facilities by a belly dump truck. These special trucks open at the bottom of the trailer for unloading.

**2** After almonds have been hulled, sorted, graded, and cleaned at the processing facility, they travel to the manufacturing facility and are packed into large bags called supersacks, large boxes called triwalls, or smaller retail packages. The finished product is placed in a dry van and transported to a distribution center.

## Activity

Pilot this vessel through the channels to get to the port.

**3** Distribution centers move almonds to customers throughout the world in trucks, rail cars, airplanes, and ships. Almonds heading out to sea are loaded into 20-foot and 40-foot ocean containers, which are specially designed to be loaded on ships. Ships can typically hold between 8,000 and 22,000 containers.

**4** A **stevedore** coordinates the loading of the ship. Once the ship is loaded, it is turned over to a **maritime pilot** who will navigate the ship to the ocean. Pilots maneuver ships through channels that have been dredged to a depth of 29-35 feet. Once the vessel reaches the ocean the pilot turns the vessel over to the captain, the person in command of the ship.

## Activity

Standards: NGSS: 3-5-ETS1-1, 3  
Build a cargo ship out of aluminum foil that can carry agricultural products and see how long it will stay afloat. Compete with others in your class in a controlled environment. After initial testing, make improvements and test again.

## Extra! Extra!

For an additional challenge, visit [LearnAboutAg.org/agbites](http://LearnAboutAg.org/agbites) and check out #18: *Ag TransPORTation*.