

WHERE IS THE WATER?



HOW DOES IT MOVE?



Water is found in the atmosphere, but it is hard to predict when, where, and how much will fall.



Groundwater is often used for agriculture in addition to surface water, particularly in dry regions and times.



Irrigating crops requires infrastructure to distribute water across a field.



Food contains a portion of the water that is used to grow it.



Many crops are shipped long distances for processing and sale.



Crops also may be stored for long periods of time.



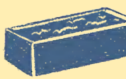
Clothing production requires water to grow raw materials and manufacture clothes.



All living things contain water within their cells, which allows them to grow and function.



Feed crops are used to raise livestock.



Livestock also need water to drink.



Cows consume alfalfa, which uses water in the soil or delivered via irrigation to grow.



To produce milk, dairy cows must have access to drinking water.



Water is used in kitchens and bathrooms, and to take care of yards.

WATER MOVEMENT



PHASE CHANGE



- 1 Plants need water to support photosynthesis. The water is pulled up to the leaves from the roots by the process of transpiration, which is the evaporation of water from pores in the leaves.
- 2 When we change the kinds of plants that grow on the land, we change how much and where water vapor enters the atmosphere.
- 3 Water in the atmosphere condenses and falls to earth as precipitation.
- 4 When soils are not saturated, surface water slowly soaks back into the soil over time.
- 5 Plant roots can access shallow soil moisture.
- 6 Pipes, pumps, canals, and sprinklers are used to water crops in places where there is not enough rainfall.

- 7 "Flood irrigation" provides water to crops, but energy from the sun can evaporate excess water.
- 8 When we use wells to pump water from aquifers, it can take centuries to replenish.
- 9 Much of the food we grow is fed to livestock.
- 10 When animals eat crops, they consume the water contained in the food.
- 11 We transport food and goods produced with water across the landscape.
- 12 When we transport food, we are also moving the water that it contains.