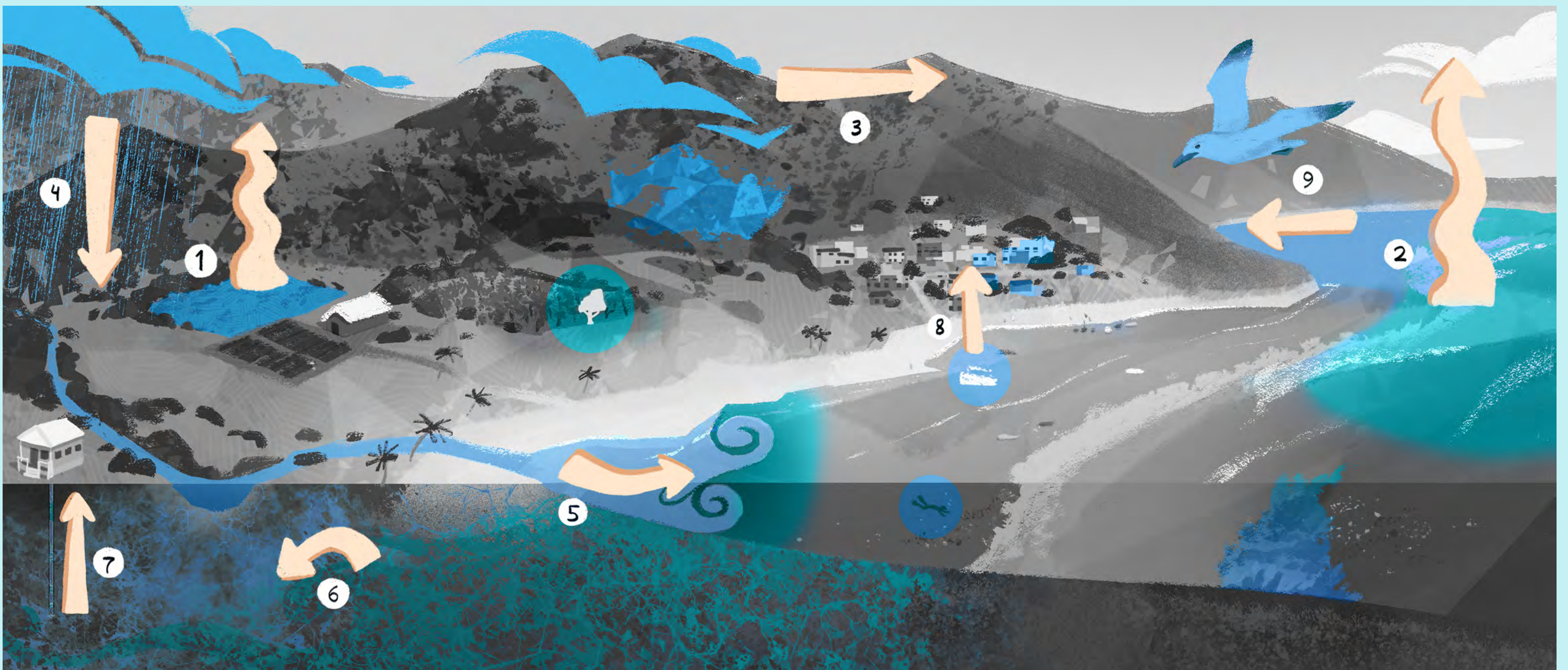


WHERE IS THE WATER?



HOW DOES IT MOVE?



Energy from the sun evaporates water from the ocean's surface, producing large quantities of atmospheric water vapor. The vapor cools and condenses into clouds.



In tropical coastal areas, surface water on land is often abundant because of almost-daily precipitation.



Near the shore, freshwater flowing off the land mixes with saltwater from the ocean. Barrier reefs can separate this mixed water from the surrounding ocean, creating a unique water chemistry.



Saltwater and freshwater also mix underground near the shore, making "kind-of-salty, kind-of-fresh" groundwater. Saltwater is denser, so it sits below the freshwater and can pollute drinking wells.



The open ocean contains about 3.5% salt. Areas where there is more evaporation or deeper water can be even saltier.



All living things contain water within their cells, which allows them to grow and function. Plants draw up, use, and retain water as part of photosynthesis.



Plants use soil moisture and shallow groundwater to grow. On the coast, some plants can tolerate saltier soils and water.



Native plants are adapted to an area's temperature and precipitation patterns and are very efficient at using available water in their native area.



Some predators hunt in the ocean and consume salt water through the prey they eat. Many of these predators have special organ systems to remove extra salt from their bodies.



Building materials, such as concrete and wood, require water to produce.



Water is used to grow, manufacture, and transport goods and food before they are delivered to store shelves.

WATER MOVEMENT



PHASE CHANGE



FRESHWATER



SALT WATER



- 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.
- Evaporation driven by the sun's energy contributes water vapor to the air, causing precipitation and moderating temperatures near the coast.
- Water vapor in the atmosphere is moved over great distances by prevailing winds.
- Regular precipitation provides a critical supply of freshwater. It can dissolve soil nutrients as it runs downstream.

- Rivers carry fresh water, sediment, and dissolved nutrients from the land to the ocean.
- In coastal aquifers, saltwater naturally intrudes beneath freshwater. High rates of groundwater pumping near the coast can pull saltwater farther inland.
- We use groundwater from coastal aquifers for multiple purposes, including household use.
- We transport food and goods produced with water across the landscape.
- Animals consume water directly and through the food they eat.