

4th Grade Science SOLs

Study Guides & Review Worksheets

Plant & Animal Structure

Term to Know

- **Photosynthesis**, The process plants use to make food from sunlight and carbon dioxide.

Parts of a Plant



- **Leaves**, They are the part of the plant that photosynthesize.
- **Stem**, Helps support the plant and transport water and nutrients.
- **Flowers**, They are the part of the plant that reproduce.
- **Roots**, They anchor the plant in the soil and absorb water and nutrients.
- **Buds**, They are the part of the plant that will become flowers.

Photosynthesis

Plants produce their own food through the process of photosynthesis. They use green pigment called **chlorophyll** along with carbon dioxide, water, and sunlight to produce food (sugar). Oxygen is released during photosynthesis.



Pollination

Pollination is the process where pollen is moved from the stamen of a flower to the pistil of another flower. This can be moved by wind, water, or animals. Some flowers attract pollinators.



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Ocean

Terms to Know

- **Continental Shelf**, The shallow, gently sloping underwater area near the coast.
- **Continental Slope**, A steep slope that connects the continental shelf to the deep sea.
- **Continental Rise**, A mound of sediment at the base of the continental slope.
- **Abyssal Plain**, A dark, flat area on the ocean floor that is thousands of feet below the ocean's surface.
- **Trench**, A narrow canyon in the ocean floor. Usually tens of thousands of feet deep.
- **Salinity**, The amount of salt dissolved in water.

The Ocean Floor



Tides & Currents

Tides are the regular rise and fall of sea levels. Tides are caused by the gravitational pull of the moon and the sun.

Ocean currents describe the motion of the water. Currents are caused by wind and temperature differences in the water.

Marine Food Web



Salinity

Salinity can be different in different parts of the ocean. Things that affect salinity include rates of evaporation, the depth of the water, melting icebergs, and the amount of runoff from nearby land.

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vs. Climate

Climate is the weather of a given area averaged over at least 30 years. The following describes climate:

- average wind
- average temperature
- average humidity
- average rainfall

Masses

These bring different weather conditions.

Low Pressure

- strong winds
- stormy weather



Clouds

Cumulonimbus

- big, fluffy, and dark bottoms
- thunderstorms
- hail, rain, wind



Cirrus

- feathery
- fair weather
- rain or snow will fall soon



Extreme Weather

Thunderstorms

- warm, humid conditions
- heavy rain
- lightning and thunder

Hurricanes

- over warm, tropical water
- winds at least 74 miles per hour

Tornadoes

- form from thunderstorms
- change of wind direction
- air begins to rotate

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