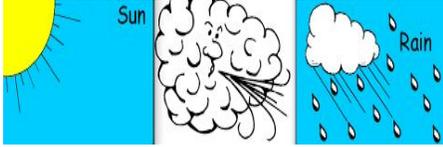
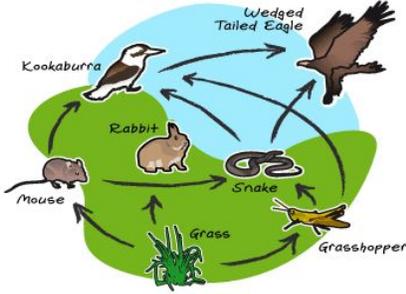
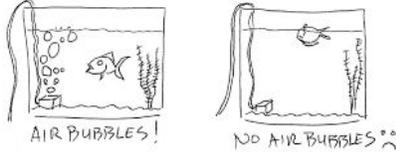


# Ecosystems Unit

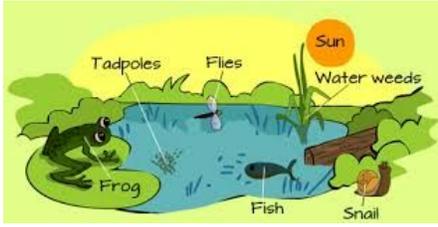
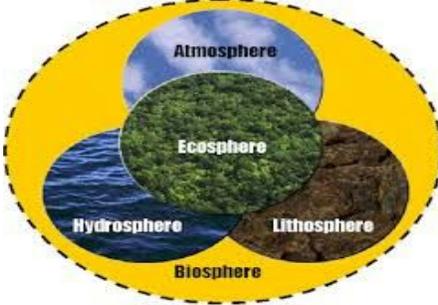
## 8.L.3

<p><b>Abiotic Factor</b> (8.L.3.1)</p>	<p>Non-living parts of an ecosystem; Includes light, temperature, weather, soil, and water</p>	
<p><b>Biotic Factor</b> (8.L.3.1)</p>	<p>Living parts of an ecosystem; Includes remains and waste</p>	
<p><b>Limiting Factor</b> (8.L.3.1)</p>	<p>Biotic and Abiotic factors that prevent the continuous growth of a population</p>	

<p><b>Population Density</b> (8.L.3.1)</p>	<p>Describes the number of individuals in a given area</p>	
<p><b>Population</b> (8.L.3.1)</p>	<p>All organisms of a species that live in the same place at the same time</p>	

# Ecosystems Unit

## 8.L.3

<p><b>Biodiversity</b> (8.L.3.1)</p>	<p>The variety of life in the world or in a particular habitat or ecosystem</p>	
<p><b>Ecosystem</b> (8.L.3.1)</p>	<p>Includes all living and nonliving parts of the environment as well as the interactions among them.</p>	
<p><b>Community</b> (8.L.3.1)</p>	<p>All of the populations that live in an area at the same time</p>	
<p><b>Biosphere</b> (8.L.3.1)</p>	<p>Includes land, water, and the lower part of the atmosphere</p>	
<p><b>Symbiotic Relationship</b> (8.L.3.2)</p>	<p>Close relationship between two different species of organisms living together</p>	

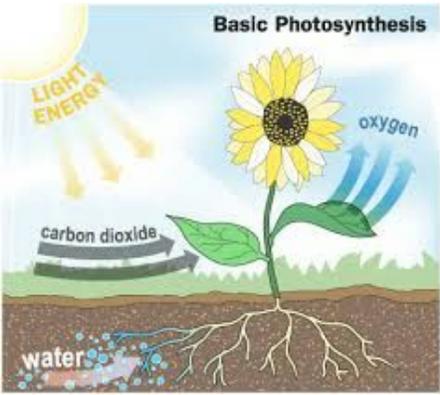
# Ecosystems Unit

## 8.L.3

<p><b>Mutualism</b> (8.L.3.2)</p>	<p>Relationship in which both species benefit</p>	 A photograph of a butterfly with orange and black wings feeding on a bright pink flower. The background is a soft, out-of-focus green.
<p><b>Parasitism</b> (8.L.3.2)</p>	<p>Relationship between a parasite and its host</p>	 A close-up photograph of a tick embedded in human skin. The tick is a small, dark, oval-shaped insect with eight legs.
<p><b>Commensalism</b> (8.L.3.2)</p>	<p>Relationship where one species benefits without benefiting or harming the other species</p>	 A photograph of a crocodile with its mouth open. A small blue bird is perched on the crocodile's snout, illustrating commensalism.
<p><b>Predation</b> (8.L.3.2)</p>	<p>Relationship in which one animal hunts, kills, and eats another</p>	 A photograph of a lion attacking a zebra in a savanna. The lion is on top of the zebra, which is running.
<p><b>Competition</b> (8.L.3.2)</p>	<p>Occurs when organisms in an ecosystem try to get the same resources</p>	 A photograph of two cheetahs in a dry, grassy field. One cheetah is standing and looking towards the other, which is lying down.

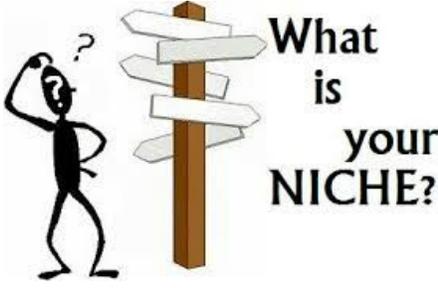
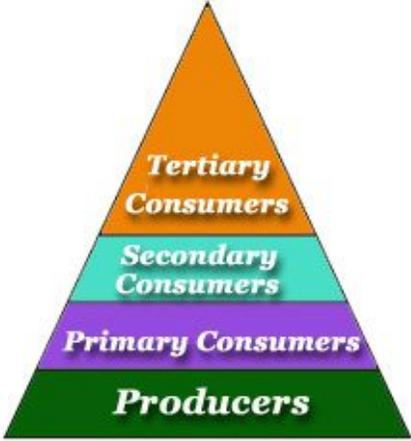
# Ecosystems Unit

## 8.L.3

<p><b>Producer</b> (8.L.3.2)</p>	<p>Organism that produces its own food</p>	 <p>The diagram, titled "Basic Photosynthesis", shows a sunflower. A sun in the top left corner emits yellow arrows labeled "LIGHT ENERGY" towards the plant. A blue arrow labeled "oxygen" points upwards from the plant's leaves. A grey arrow labeled "carbon dioxide" points downwards from the atmosphere into the plant's leaves. At the bottom, blue arrows labeled "water" point upwards from the soil into the plant's roots. The background shows a green field and a blue sky.</p>
<p><b>Consumer</b> (8.L.3.2)</p>	<p>Organism that cannot make their own food</p>	 <p>A photograph showing a herd of black and white cows grazing in a lush green field. The cows are scattered across the frame, some facing left and some right, with trees in the background under a clear sky.</p>
<p><b>Decomposer</b> (8.L.3.2)</p>	<p>An organism that gets energy by breaking down the remains of dead organisms and the wastes of living organisms</p>	 <p>A close-up photograph of several earthworms in dark, moist soil. The worms are brown and segmented, with some showing their heads and tails. They are clustered together, illustrating their role as decomposers.</p>
<p><b>Predator</b> (8.L.3.2)</p>	<p>Animals that kill and eat each other</p>	 <p>A cartoon illustration of a lion chasing a zebra in a savanna. The lion is on the right, running towards the left, while the zebra is on the left, running away. The background features a yellowish-brown landscape with a blue sky and a large sun. The watermark "dreamstime.com" is visible in the bottom right corner.</p>
<p><b>Prey</b> (8.L.3.2)</p>	<p>Animals that are killed and eaten</p>	 <p>A photograph of a brown wolf chasing a white rabbit in a snowy field. The wolf is in the foreground, running towards the right, while the rabbit is running away towards the right. The ground is covered in a layer of snow, and the background is a bright, overcast sky.</p>

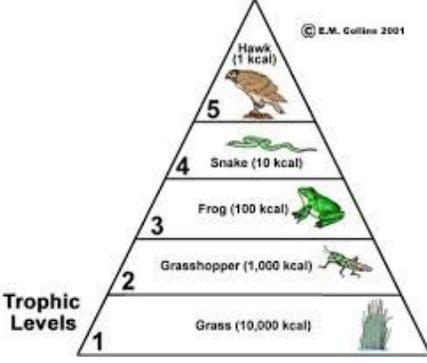
# Ecosystems Unit

## 8.L.3

<p><b>Niche</b> (8.L.3.2)</p>	<p>How an organism acts in its ecosystem (the organisms role)</p>	
<p><b>Coexistence</b> (8.L.3.2)</p>	<p>Organisms that live in the same habitat but rely on different resources</p>	
<p><b>Food Web</b> (8.L.3.3)</p>	<p>A network of interconnected food chains in an ecosystem</p>	
<p><b>Trophic Level</b> (8.L.3.3)</p>	<p>Each feeding level in an ecosystem</p>	

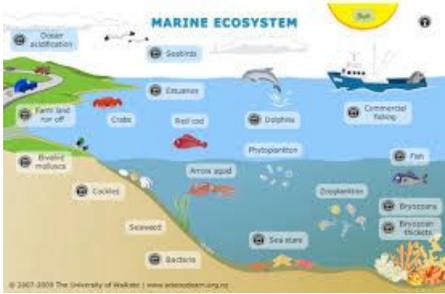
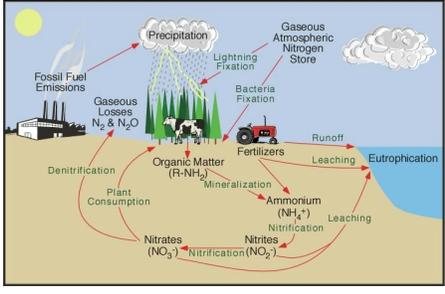
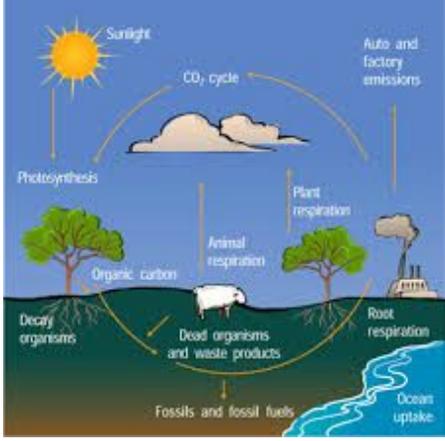
# Ecosystems Unit

## 8.L.3

<p><b>Energy Pyramid</b> (8.L.3.3)</p>	<p>graphical representation of the trophic levels (nutritional) by which the incoming solar energy is transferred into an ecosystem</p>	
<p><b>Autotrophs</b> (8.L.3.3)</p>	<p>An organism that produces its own food; also called producers</p>	
<p><b>Heterotrophs</b> (8.L.3.3)</p>	<p>Organisms that cannot make their own food; also called consumers</p>	
<p><b>Terrestrial Ecosystem</b> (8.L.3.3)</p>	<p>This ecosystem is found on land</p>	 <p><i>Diagram of the terrestrial ecosystems and major carbon pools covered in the assessment.</i></p>

# Ecosystems Unit

## 8.L.3

<p><b>Aquatic/Marine Ecosystem</b> (8.L.3.3)</p>	<p>this ecosystem includes wherever there is salt water</p>	 <p>The diagram illustrates a cross-section of a marine ecosystem. On the surface, there are labels for 'Ocean stratification', 'Seabirds', 'Estuaries', 'Dolphins', and 'Commercial fishing'. Below the surface, various organisms are shown: 'Crabs', 'Shellfish', 'Arrow squid', 'Dredgefishes', 'Fish', 'Echinoderms', 'Squid', 'Sea stars', and 'Bacteria'. Processes like 'Photosynthesis' and 'Phytoplankton' are also indicated. The seabed features 'Seaweed' and 'Sediment'. A copyright notice at the bottom reads: '© 2007-2008 The University of Waikato   www.ecosystems.org.nz'</p>
<p><b>Nitrogen Cycle</b> (8.L.3.3)</p>	<p>The movement of nitrogen through the environment</p>	 <p>The diagram shows the nitrogen cycle with various stages: 'Precipitation' (rain and snow), 'Lightning Fixation', 'Gaseous Atmospheric Nitrogen Store', 'Fossil Fuel Emissions', 'Gaseous Losses N<sub>2</sub> &amp; N<sub>2</sub>O', 'Bacteria Fixation', 'Fertilizers', 'Runoff', 'Eutrophication', 'Leaching', 'Ammonium (NH<sub>4</sub><sup>+</sup>)', 'Nitrification', 'Nitrites (NO<sub>2</sub><sup>-</sup>)', 'Nitrates (NO<sub>3</sub><sup>-</sup>)', 'Denitrification', 'Plant Consumption', 'Organic Matter (R-NH<sub>2</sub>)', and 'Mineralization'. A copyright notice at the bottom reads: '© 2007-2008 The University of Waikato   www.ecosystems.org.nz'</p>
<p><b>Carbon Cycle</b> (8.L.3.3)</p>	<p>Carbon moves among the air; the ground, and the plants/animals</p>	 <p>The diagram illustrates the carbon cycle with labels for 'Sunlight', 'CO<sub>2</sub> cycle', 'Auto and factory emissions', 'Photosynthesis', 'Plant respiration', 'Animal respiration', 'Root respiration', 'Organic carbon', 'Decay organisms', 'Dead organisms and waste products', 'Fossils and fossil fuels', and 'Ocean uptake'. A copyright notice at the bottom reads: '© 2007-2008 The University of Waikato   www.ecosystems.org.nz'</p>