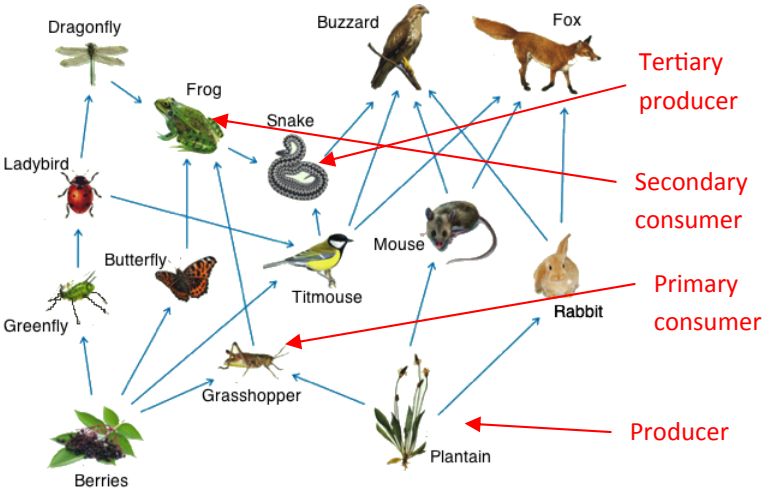
Year 7/8- Life processes (part 1)

Life processes	**M**ovement, **R**espiration, **S**ensitivity, **G**rowth, **R**eproduction, **E**xcretion, and **N**utrition.
Respiration	**Chemical change that takes place inside living cells** that uses glucose and oxygen to produce the energy organisms need to live. Carbon dioxide is a by- product of respiration. **glucose + oxygen —> carbon dioxide + water**
Species	Used in the classification of living organisms, referring to related organisms capable of breeding to produce offspring that can also breed.
Variation	Difference between individuals of the same species.
Genes	The basic units of genetic material inherited from our parents. A gene is a section of DNA
Natural selection	The natural process whereby the best-adapted individuals survive longer, have more offspring and thereby spread their characteristics through a population. Sometimes known as 'survival of
Darwin's finches	Species of finch found on the Galapagos Islands that inspired Darwin's **theory of evolution**.
Evolution	Theory of evolution is that all the different species have developed over time from simple life
Explanation	Give reasons why, or how, something happens.
Three domains of Life	A method of classifying (grouping organisms) all living organisms into: Archaea, Eukaryota or Bacteria.
Archaea	Bacteria that live in extreme environments.
Eukaryota	This domain includes, animals, plants, fungi, and protista.
Bacteria	Single celled organisms that gain energy from consuming nutrients.
Adaption	Change by which an organism or species becomes better suited to its environment.
Habitat	The natural home or environment of an animal, plant, or other organism.
Community	All the populations of different organisms that live together in a habitat.
Food chain	A food chain shows the different organisms that live in a habitat, and what eats what.
Food web	When all the food chains in a habitat are joined up together they form a food web.
Producer	A food chain always starts with a producer, which is an organism that makes food. This is
Primary Consumer	Usually eat plant material. For example rabbits, caterpillars, cows, and sheep.
Secondary	Usually carnivorous and eat primary consumers. For example foxes, frogs, and sharks.



Example of a land based food web.

M	Movement	Physical act of moving
R	Respiration	Converting glucose and oxygen to energy
S	Sensitivity	Detecting changes in the surroundings
G	Growth	Increasing in size
R	Reproduction	Making new living things of the same type
E	Excretion	Getting rid of waste
N	Nutrition	Taking in nutrients e.g. food

Seven Life processes

Quizlet

Bitesize

PRIDE THROUGH SUCCESS

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Learning Outcome	Strengthen	Extend
1.1, 1.2	1. **recall** the 7 life processes 2. **Recall** the respiration equation 3. Come up with a way to remember the 7 life processes	4. do trees excrete? 5. **Justify** that trees are **not** living 6. **Recall** the symbol equation for respiration
2.1,2.2	1. **recall** the definition of a species 2. In 5 bullet points **describe** the process of evolution 3. **Recall** 10 species that are very different from each other	4. **explain** what happens if similar but different species reproduce 5. **explain** why weaker members of the species die out 6. **recall** the factors that drive evolution
2.3	1. **recall** the definition of natural selection 2. **Describe** how natural selection occurs 3. **Recall** then **explain** an example of a species that has undergone natural selection	4. **recall** an example of natural selection as a result of geographic isolation 5. **describe** the process of natural selection in 6 steps 6. **Recall** 4 ways geographic isolation may occur
2.4	1. **recall** the 3 kingdoms 2. **Describe** one characteristic of each kingdom 3. **Recall** 5 different species from the domain eukaryota	4. **explain** why scientist use the 3 domain model rather than the 5 kingdoms 5. **explain** why bacteria and archaea are different domains 6. **Recall** the domains that have autotrophic species within
2.5, 2.6	1. **Describe** the habitat of a cactus 2. **Describe** how the cactus is adapted to survive in this habitat 3. **Describe** how a species can affect the habitat it lives in	4. give an **example** using scientific language how a zebra is adapted 5. **describe** the detrimental effects of zebra on the habitat 6. **explain** how this detrimental effect affects another species in the community
3.1	1. **construct** a four member food chain 2. **Recall** 5 different examples of a producer 3. **Describe** a primary and secondary consumer for each of the producers you have recalled.	4. **explain** why there are usually less species at the top of the food chain 5. look at the food web on the other side, **explain** how would an extinction of dragonfly change the population of butterflies 6. Give an example of a organism that is both a primary and secondary consumer