Characteristics and classification of living organisms

IGCSE Biology · Vocabulary in context

Word	Example
characteristics /ˌkærɪktəˈrɪstɪks/	Fur and four legs are **characteristics** of a dog.
life processes /laɪf ˈprəʊsesɪz/	Breathing and growing are **life processes**.
organisms /ˈɔːgənɪzəmz/	Bacteria, plants and animals are all **organisms**.
movement /ˈmuːvmənt/	Plants show **movement** when they turn towards light.
respiration /ˌrespɪˈreɪʃn/	**Respiration** releases energy from glucose.
cells /selz/	Your body is made of millions of **cells**.
nutrient molecules /ˈnjuːtrɪənt ˈmɒlɪkjuːlz/	Glucose and amino acids are **nutrient molecules**.
energy /ˈenədʒi/	Food gives your body the **energy** it needs to move.
metabolism /məˈtæbəlɪzəm/	**Metabolism** is all the chemical reactions in a living thing.
sensitivity /ˌsensɪˈtɪvɪti/	**Sensitivity** lets you pull your hand away from a hot plate.
environment /enˈvaɪrənmənt/	A fish lives in a water **environment**.
growth /grəʊθ/	**Growth** means getting bigger.
dry mass /draɪ mæs/	Dry the plant in an oven before you measure its **dry mass**.

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reproduction /rɪprəˈdʌkʃn/	**Reproduction** makes new living things.
excretion /ekˈskreʃn/	The kidneys carry out **excretion** of urea.
waste products /weɪst ˈprɒdʌkts/	Carbon dioxide and urea are **waste products**.
nutrition /njuːˈtrɪʃn/	Plants get their **nutrition** by photosynthesis.
classify /ˈklæsɪfaɪ/	**Classify** the animals into groups.
species /ˈspiːsiːz/	Lions and tigers are different **species**.
fertile offspring /ˈfɜːtaɪl ˈɒfsprɪŋ/	A horse and a donkey cannot have **fertile offspring**.
scientific name /saɪənˈtɪfɪk neɪm/	The **scientific name** of the lion is Panthera leo. Panthera leo
binomial system /baɪˈnəʊmɪəl ˈsɪstəm/	In the **binomial system**, humans are called Homo sapiens: a two-part name. Homo sapiens
genus /ˈdʒenəs/	Lions and tigers belong to the same **genus**, Panthera. Panthera
dichotomous key /daɪˈkɒtəməs kiː/	Use a **dichotomous key** to name the leaf.
evolutionary relationships /ɪvəˈluːʃənəri rɪˈleɪʃənʃɪps/	DNA shows the **evolutionary relationships** between animals. DNA
ancestor /ˈænsestə/	Humans and apes share a common **ancestor**.
base sequence /beɪs ˈsiːkwəns/	The **base sequence** of DNA is the genetic code. DNA
genes /dʒiːnz/	**Genes** control your eye colour.

Word	Example
kingdoms /ˈkɪŋdəmz/	Animals and plants are two of the five **kingdoms**.
animal /ˈænɪml/	A dog is an **animal**.
cell wall /sel wɔːl/	A **cell wall** gives a plant cell its shape.
plant /plænt/	A tree is a **plant**.
photosynthesis /ˌfəʊtəʊˈsɪnθəsɪs/	Plants make sugar by **photosynthesis**.
chloroplasts /ˈklɔːrəʊplæsts/	**Chloroplasts** make the leaf green.
fungus /ˈfʌŋgəs/	A mushroom is a **fungus**.
moulds /məʊldz/	**Moulds** grow on old bread.
mushrooms /ˈmʌʃruːmz/	We eat **mushrooms** in soup.
yeast /jiːst/	**Yeast** makes bread rise.
prokaryote /ˈprɒkərɪəʊt/	A bacterium is a **prokaryote**: it has no nucleus.
bacteria /bækˈtɪərɪə/	Chlorine kills **bacteria** in drinking water.
single-celled /ˈsɪŋgl seld/	Bacteria are **single-celled**.
nucleus /ˈnjuːklɪəs/	The **nucleus** holds the cell's DNA.
protoctist /ˈprəʊtəʊktɪst/	Amoeba is a **protoctist**.
algae /ˈælgiː/	Green **algae** grow in ponds.

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Word	Example
vertebrates /ˈvɜːtɪbreɪts/	Fish, birds and mammals are **vertebrates**.
backbone /ˈbækbəʊn/	Your **backbone** protects your spinal cord.
mammals /ˈmæmlz/	Dogs and humans are **mammals**.
fur /fɜː/	**Fur** keeps a cat warm.
birds /bɜːdz/	**Birds** lay eggs with hard shells.
feathers /ˈfeðəz/	**Feathers** help birds to fly.
beak /biːk/	An eagle has a sharp, hooked **beak**.
reptiles /ˈreptaɪlz/	Snakes and lizards are **reptiles**.
scales /skeɪlz/	A fish's body is covered in **scales**.
amphibians /æmˈfɪbɪənz/	Frogs are **amphibians**.
fish /fɪʃ/	**Fish** breathe through gills.
fins /fɪnz/	A fish uses its **fins** to swim.
gills /gɪlz/	**Gills** take oxygen from the water.
arthropods /ˈɑːθrəpɒdz/	Insects and spiders are **arthropods**.
exoskeleton /ˈeksəʊskelɪtn/	A crab's hard shell is an **exoskeleton**.
joints /dʒɔɪnts/	Flexible **joints** let an insect bend its legs.

Word	Example
insects /ˈɪnsekts/	Bees and ants are **insects**.
antennae /ænˈteniː/	An ant uses its **antennae** to smell and touch.
arachnids /əˈræknɪdz/	Spiders are **arachnids**: they have eight legs.
crustaceans /krʌˈsteɪʃnz/	Crabs and shrimps are **crustaceans**.
myriapods /ˈmaɪrɪæpɒdz/	Centipedes are **myriapods**: they have many legs.
segments /ˈsegmənts/	An earthworm's body is made of many **segments**.
ferns /fɜːnz/	**Ferns** grow in damp, shady places.
spores /spɔːz/	Ferns and fungi make **spores** instead of seeds.
flowering plants /ˈflaʊərɪŋ plænts/	Roses and apple trees are **flowering plants**.
seeds /siːdz/	An apple has **seeds** inside.
cotyledons /ˌkɒtɪˈliːdnz/	A bean seed has two **cotyledons**.
monocotyledons /ˌmɒnəʊˌkɒtɪˈliːdnz/	Grass and maize are **monocotyledons**.
leaf veins /liːf veɪnz/	The **leaf veins** carry water through the leaf.
dicotyledons /ˌdɪkətɪˈliːdnz/	Beans and roses are **dicotyledons**.
viruses /ˈvaɪrəsɪz/	Flu and colds are caused by **viruses**.
protein coat /ˈprəʊtiːn kəʊt/	A **protein coat** surrounds the genes of a virus.

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Word	Example
genetic material /dʒɪˈnetɪk məˈtɪərɪəl/	DNA is the **genetic material** of a cell. DNA
host /həʊst/	A virus can only reproduce inside a **host** cell.
digestion /daɪˈdʒestʃn/	**Digestion** breaks food into small molecules.