B1.4 Interdependence and Adaptation

B1.4.1 Adaptations

What do plants compete for?

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What do animals compete for?

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What is an adaptation?

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What is an extremophile?

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What adaptations may an organism have to allow it to survive in dry artic conditions?

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What adaptations may an organism have to survive in dry environments?

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B1.4.2 Environmental Change

Give some examples of non-living changes in an environment

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Give some examples of living changes in an environment

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Describe how lichens can be used as air pollution indicators

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Describe how invertebrate animals can be used as water pollution indicators

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Give examples of non-living indicators that demonstrate environmental changes

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B1.5 Energy and Biomass in Food Chains

B1.5.1 Energy in Biomass

What process do plants use to collect energy from the sun?

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What is biomass?

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How is biomass created?

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Why is the amount of energy contained in the biomass of organisms reduced at each stage of the food chain?

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B1.6 Waste Materials from Plants and Animals

B1.6.1 Decay Processes

Why do materials decay?

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What conditions cause decay to occur fastest?

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Why is the decay process important?

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What is a “stable community”?

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B1.6.2 The Carbon Cycle

Carbon dioxide is removed from the environment by green plants by

…………………. The carbon from carbon dioxide is used to make …………, ……………….. and ………………….. to make up the body of plants. Plants release carbon dioxide to the atmosphere by …………………. Plants are eaten by animals, animals are eaten by other animals, what happens to the carbon?

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Animals release carbon dioxide to the atmosphere by …………………………

When plants and animals die some animals and ………………………. feed on their bodies. These organisms release carbon to the air when they ……………

Carbon dioxide is released to the atmosphere from wood and fossil fuels by ……………………………..

Draw and label a diagram of the carbon cycle

B1.7 Genetic Variation and Control

B1.7.1 Why Organisms are Different

What is a gene?

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What is a gamete?

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What is a genetic cause of variation?

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B1.7.2 Reproduction

What is sexual reproduction?

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What is asexual reproduction?

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What is a “cutting”?

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Describe the following cloning techniques:

Tissue culture

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Embryo Transplant

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Adult Cell Cloning

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What is genetic engineering?

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What is meant by the term “genetically modified” (GM)?

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Give examples of GM crops

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What are the concerns associated with GM crops?

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B1.8 Evolution

What is the name of the theory of evolution proposed by Charles Darwin?

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Why was Darwin’s theory only gradually excepted?

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How did Lamarck’s theory differ from Darwin’s?

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Why is it important to study the similarities and differences between living organisms?

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Describe the process of natural selection

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