

**Edexcel core science revision B1 – Topic 1 'Classification, variation and inheritance'**

<b>What are the 7 levels of classification?</b>	<b>Which are the main characteristics of the 5 vertebrate groups?</b>	<b>What are the main characteristics of the 5 kingdoms?</b>	<b>Why are many vertebrates difficult to classify?</b>
<b>Why are viruses classed as non-living?</b>	<b>What are the limitations of the definition of a species?</b>	<b>Define a species</b>	<b>What are the main characteristics of the phylum chordata?</b>
<b>Why is binomial classification important?</b>	<b>What is the difference between continuous and discontinuous variation?</b>	<b>Describe 2 difficulties with classification</b>	<b>How are polar bears adapted for their environment?</b>
<b>Explain the importance of binomial classification for conservation</b>	<b>How are Pompeii worms adapted to live in hydrothermal vents?</b>	<b>How does variation complicate classification?</b>	<b>How do you draw a graph to show a) continuous variation b) discontinuous variation?</b>

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<b>What does a normal distribution curve show?</b>	<b>What is the evidence supporting natural selection?</b>	<b>What is an allele?</b>
<b>What are the two factors that affect variation?</b>	<b>How does speciation occur?</b>	<b>What is a carrier?</b>
<b>What is evolution?</b>	<b>What is in the nucleus of cells?</b>	<b>Define the following terms; dominant, recessive</b>
<b>What is natural selection?</b>	<b>What is a gene?</b>	<b>Define the following terms; homozygous, heterozygous, phenotype and genotype.</b>

**Edexcel core science revision B1 – Topic 2 ‘Topic 2: Responses to a changing environment’**

<b>Define the term osmoregulation</b>	<b>Explain why it is important for the enzymes in our bodies that our internal body temperature is fairly constant</b>	<b>What is ADH? What is the role of ADH in homeostasis?</b>
<b>Define the term thermoregulation</b>	<b>A pale-skinned person may look pink during exercise. Why?</b>	<b>Explain the role of hormones in the body. Where are hormones produced?</b>
<b>Describe osmoregulation in terms of negative feedback system</b>	<b>What is the role of the hypothalamus?</b>	<b>Name the endocrine gland that secretes glucagon, and the target organ that the hormone affects.</b>

**Edexcel core science revision B1 – Topic 2 'Topic 2: Responses to a changing environment'**

<p><b>Tom is 1.8m tall and weighs 100 kg. Calculate his BMI and say whether or not he is obese.</b></p>	<p><b>How can type 1 and type 2 diabetes be treated? Are the treatments the same?</b></p>	<p><b>Compare type 1 and type 2 diabetes.</b></p>
<p><b>Explain why selective weed killers are useful.</b></p>	<p><b>Explain how auxin helps a shoot to grow towards light shining from one side.</b></p>	<p><b>State the equation to calculate BMI</b></p>
<p><b>Explain 3 changes that happen to the body when a person is too hot</b></p>	<p><b>Explain the advantages of gravitropism in plant roots.</b></p>	<p><b>Describe the correlation between type 2 diabetes and obesity. Explain the correlation.</b></p>

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<p><b>Define the term homeostasis</b></p>	<p><b>Many health professionals advise that weight control is needed to prevent a huge increase in cases of diabetes over the next decade or two. Evaluate this advice.</b></p>	<p><b>What might an individual have a rise in blood glucose concentration?</b></p>
<p><b>Define the term negative feedback mechanism</b></p>	<p><b>Define the term tropism.</b></p>	<p><b>The control of blood glucose concentration is an example of negative feedback. Explain why.</b></p>
<p><b>Explain 3 changes that happen to the body when a person is too cold</b></p>	<p><b>What is the effect of auxins and gibberellins on plants.</b></p>	<p><b>Glycogen and glucagon. What's the difference?</b></p>

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<p><b>Where are auxins produced what happens to auxins when they detect light?</b></p>	<p><b>What might an individual have a drop in blood glucose concentration?</b></p>	<p><b>Ripe bananas give off a gas called ethene. Pears stored next to ripe bananas ripen more quickly than pears stored next to unripe bananas. Explain why.</b></p>
<p><b>Explain why exercise is recommended for people with diabetes.</b></p>	<p><b>Outline the link between type two diabetes and the liver.</b></p>	<p><b>Explain how thermoregulation can be achieved via blood flow.</b></p>
<p><b>Define the terms vasoconstriction and vasodilation</b></p>	<p><b>Why do gardeners use rooting powders?</b></p>	<p><b>How is heat radiated from the body?</b></p>

<b>List 3 types of chemicals that are found in cigarettes and their effects.</b>	<b>What are the short term effects of alcohol?</b>	<b>What is a pathogen?</b>	<b>What are the long term effects of alcohol?</b>
<b>Give 4 examples of pathogens and the diseases caused by each.</b>	<b>What is the difference between; antiseptics, antibiotics, antifungals and antibacterials.</b>	<b>What is the difference between; antiseptics, antibiotics, antifungals and antibacterials.</b>	<b>What is a food chain?</b>
<b>What does a pyramid of biomass show?</b>	<b>What do food webs show?</b>	<b>Give 4 examples of parasites.</b>	<b>What is a parasite?</b>
<b>Define these terms; producer, primary consumer, secondary consumer, tertiary consumer, trophic level.</b>	<b>Give 4 examples of mutualists.</b>	<b>What is a mutualist?</b>	<b>How does the growth of the human population affect the environment?</b>

**Edexcel core science revision B1 – Topic 3: Problems of, and solutions to a changing environment**

<b>Which species show water pollution?</b>	<b>How does eutrophication occur and what problem does this cause??</b>	<b>Why is recycling important??</b>	<b>What are the 5 processes that make up the carbon cycle and what affect do they have on carbon??</b>
<b>Write the equation for photosynthesis</b>	<b>What are the problems associated with carbon dioxide</b>	<b>What are the problems associated with sulphur dioxide</b>	<b>NAME 3 DIFFERENT TYPES OF AIR-POLLUTION INDICATORS</b>
<b>Write the equation for respiration</b>	<b>Write the word and balanced symbol equation for the combustion of methane</b>	<b>Explain how physical barriers prevent entry of pathogens</b>	<b>Explain how chemical barriers prevent entry of pathogens</b>