AQA Biology GCSE Student Checklist

B16 Adaptations, independence, and competition

Name ..... Class ..... Date .....

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B16.1 The importance of communities	I can state what is meant by ecosystem, population and community.	☐	I can define the terms community, population, habitat, ecosystem, abiotic factor, biotic factor.	☐	I can link keywords to explain why a community is stable and important.	☐
	I can list some resources that living things need.	☐	I can describe what a stable community is and give an example.	☐	I can use evidence to write hypotheses about why populations have changed in a community.	☐
	I can use a given example to describe why one species relies on another.	☐	I can suggest how one species relies on another.	☐	I can explain why interdependence is important in maintaining a stable community.	☐
B16.2 Organisms in their environment	I can identify factors as biotic or abiotic.	☐	I can describe how a factor influences the distribution of organisms.	☐	I can describe in detail how to measure the pH and water content of soil.	☐
	I can use an instrument to measure an abiotic factor.	☐	I can record measurements of abiotic factors.	☐	I can analyse data in detail and draw appropriate conclusions.	☐
B16.3 Distribution an abundance	I can state the function of a quadrat and transect.	☐	I can explain how to use a quadrat and transect to estimate population size.	☐	I can discuss what factors determine the size of the quadrat used.	☐
	I can follow a method to estimate a population using a sampling technique.	☐	I can design a method to estimate a population using a sampling technique.	☐	I can design independently an investigation based around a question or hypothesis.	☐
	I can calculate the mean of a set of results.	☐	I can calculate range, mean, median and mode in order to analyse results.	☐	I can evaluate in detail the use of sampling to estimate population size.	☐

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B16.4 Competition in animals	I can state that animals compete with each other for resources.	☐	I can use information to suggest factors that animals are competing for in a given habitat.	☐	I can evaluate a model of competition between organisms.	☐
	I can list resources that animals compete with each other for.	☐	I can explain tactics that help an animal compete for a resource.	☐	I can use the terms inter-specific and intra-specific competition and give examples of each.	☐
	I can describe what will happen to an animal if it cannot compete for resources.	☐	I can describe how the distribution of a species has changed because of competition.	☐	I can suggest and explain how animals are adapted to compete for resources.	☐
B16.5 Competition in plants	I can list resources that plants compete with each other for.	☐	I can suggest factors that plants are competing for in a given habitat.	☐	I can plan a method to investigate competition between cress seeds.	☐
	I can state what seed dispersal is and give some ways plants carry it out.	☐	I can explain why plants use seed dispersal.	☐	I can analyse data to explain the effects of overcrowding.	☐
	I can make measurements of seedlings.	☐	I can describe the methods plants use to outcompete others of avoid competition.	☐	I can suggest the problems caused by plants that can easily outcompete others.	☐
B16.6 Adapt and survive	I can state one example of how an organism is adapted.	☐	I can suggest features that an organism may have in order to survive in a given habitat.	☐	I can suggest and explain in detail how an organism in an extreme location might evolve to become better adapted to its habitat.	☐
	I can define an extremophile.	☐	I can explain how adaptations allow an organism to survive in its habitat.	☐	I can apply knowledge of extremophiles to discuss why scientists believe there could be life on other planets (or moons).	☐

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B16.7 Adaptations in animals	I can state one example of an animal adaptation.	☐	I can classify adaptations as structural, behavioural or functional.	☐	I can suggest structural, behavioural or functional adaptations.	☐
	I can describe why it is important that most animals maintain the correct body temperature.	☐	I can calculate surface area to volume ratio.	☐	I can explain and illustrate how surface area to volume ratio is linked to maintaining the correct body temperature.	☐
	I can describe why fur or feathers can be used to maintain a warm body temperature.	☐	I can describe how animals are adapted to live in hot, dry and cold habitats.	☐	I can discuss how and why climate change is affecting the distribution of animals.	☐
B16.8 Adaptations in plants	I can state one example of a plant adaptation.	☐	I can explain how a plant adaptation allows it to survive in its habitat.	☐	I can explain how an unfamiliar plant is adapted and give reasons for its adaptations.	☐
	I can describe why plants need a constant supply of water.	☐	I can explain why plants need to reduce water loss by transpiration.	☐	I can link and explain rate of transpiration to leaf surface.	☐
	I can draw a graph to display data, with guidance.	☐	I can display data using a graph and describe what it shows.	☐	I can suggest and explain why a cactus would not survive in a cold climate.	☐