



Y8 Half-term 1

Science homework booklet

Core questions

How to use:

- 1 - **Copy** the answers once into your **knowledge organiser** to help you to learn them.
- 2 - Fold the page in **half** so that you can only see the questions, and write the answers out **again from memory**.
- 3 - Show your knowledge organiser to your teacher on the specified due date. You should show them **TWO** sets of answers to each question.

That's it!

Teacher's name: _____

Topic: Ecology (Y7 topic continued into Y8)

Date due: _____

1.	What is the name for the type of environment in which a particular species of organism lives?	Habitat
2.	List five different types of habitat.	Marine, dessert, rainforest, woodland, desert and polar.
3.	What is the name for a living thing, such as animals, plants and micro-organisms?	Organism
4.	What is the name for a group of living organisms consisting of similar individuals that are able to breed to produce fertile offspring.	Species
5.	What is the name for how an organism is suited to the environment in which it lives?	Adaptation
6.	An animal has the following adaptations, which animal do you think it is? Sharp claws to attack prey and grip the ice/snow, white fur for camouflage large paws to help them walk on the snow, thick fur coat and fat layer to keep it warm in cold conditions.	Polar bear
7.	What is the name for a biological community of interacting organisms and their physical environment?	Ecosystem
8.	What is it called when the organisms that occupy an ecosystem are all dependent upon one another?	Interdependence

Topic: Ecology (Y7 topic continued into Y8)

Date due: _____

9.	Where does almost all energy on Earth come from?	The sun.
10.	What chemical process enables plants to use the sun's energy to make their own food?	Photosynthesis.
11.	What is the name for a sequence that shows transfer of food energy from one organism to another in an ecosystem?	Food chain
12.	What do the arrows in food chains show?	The flow of energy .
13.	Draw a simple food chain for the following organisms: a fox, a rabbit and grass.	Grass → rabbit → fox
14.	What do food chains always start with?	A producer.
15.	What comes after the producer in a food chain?	Consumers
16.	What name is given to the organism that makes its own food? This is usually a green plant.	Producer

Topic: Ecology (Y7 topic continued into Y8)

Date due: _____

17.	What name is given to an animal that eats a plant or another animal?	Consumer
18.	There are three types of consumer in a food chain. What are they?	Primary, secondary and tertiary consumers.
19.	What kind of animal gets food from eating other animals?	Carnivore
20.	What kind of animal eats plant material for the main component of its diet?	Herbivore
21.	What kind of animal eats both animals and plants?	Omnivore
22.	What name is given to poisonous substances that can be harmful to organisms?	Toxic
23.	What is the term for cutting down and removal of many or all trees from an area?	Deforestation
24.	What is meant by the word 'extinction'?	No longer existing.
25.	What is the name for a tool that is used in sampling to quantify the total number of organisms living in a given area?	Quadrat
26.	Should sampling be random or not?	Random

Topic: Digestion and enzymes

Date due: _____

27	What is a 'diet'?	The usual food and drink a person eats and drinks.
28.	What collective name is given to the following: Carbohydrates, protein, fats, fibre, vitamins, minerals and water?	Nutrients
29.	Which nutrient provides energy?	Carbohydrates
30.	Which nutrient is used for growth and repair?	Protein
31.	Which nutrient supplies energy and builds cell membranes?	Fats
32.	Which nutrient is used for transport and chemical reactions?	water
33.	Which nutrient is used to keep the digestive system working properly?	Fibre
34.	What is a balanced diet?	Eating the correct amount of the seven nutrients.

Topic: Digestion and enzymes

Date due: _____

35.	What solution is used to test for sugar?	Benedicts.
36.	What is a positive result for sugar?	Colour change to green (not much sugar) orange (some sugar) or red (lots of sugar).
37.	What solution is used to test for protein?	Biuret
38.	What is a positive result for protein?	Colour change from blue to pink or purple.
39.	What solution is used to test for starch?	Iodine.
40.	What is a positive results for starch?	Colour change from orange-brown to blue-black.
41.	What is the recommended salt intake for children per day?	3g
42.	Which system are the following organs part of: oesophagus, stomach, liver, gall bladder, pancreas, small intestines, large intestines, rectum, and anus?	Digestive system

Topic: Digestion and enzymes

Date due: _____

43.	What is the name of the enzyme that breaks down starch into sugars?	Amylase
44.	What is the name of the enzyme that breaks down proteins into amino acids?	Protease
45.	What is the name of the enzyme that breaks down fats (lipids) into fatty acids and glycerol?	Lipase
46.	What is the name of the part of the enzyme with a specific shape?	Active site
47.	What is it called if the active site changes shape?	Denatured/denaturation
48.	What two factors can affect enzymes?	Temperature and pH
49.	Do enzymes speed up or slow down the rate of digestion of food?	Speed it up
50.	Why are enzymes found in washing powder?	To wash at a lower temperature, saving energy.