



Y7 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: Cells

Date due: _____

No.	Question	Answer
1	Which of the seven life processes is missing from the list: Movement, respiration, sensitivity, reproduction, excretion, nutrition.	Growth
3	What do we call the removal of waste products from an organism?	Excretion
4	What do we call the release of energy from food?	Respiration
5	What is a cell?	Basic structural units of all living organisms
6	How many cells is a unicellular organism made from?	One
7	How many cells is a multicellular organism made from?	Many
8	What do we call the subcellular structures found in the cell?	Organelles

Topic: Cells

Date due: _____

9	What additional organelles do plants cells have that animal cells don't?	cell wall, chloroplasts, vacuole
10	Which organelle contains genetic material (DNA) which controls the cell's activities?	Nucleus
11	Which organelle is a jelly-like substance where most chemical processes happen?	Cytoplasm
12	Which organelle surrounds the cell and controls movement of substances in and out?	Cell membrane
13	Which organelle releases energy from glucose?	Mitochondria
14	Which organelle synthesises proteins?	Ribosomes
15	What is the plant cell wall made of?	Cellulose
16	Which organelle provides structure and support for a plant?	Cell wall
17	Which organelle absorbs light energy so the plant can make food?	Chloroplasts
18	Which organelle contains cell sap?	Vacuole

Topic: Cells

Date due: _____

19	How equipment do we observe cells?	Microscope
20	How is magnification calculated?	magnification = image size / actual size
21	What does the prefix milli mean?	Thousandth of a metre
22	What does the prefix micro mean?	Millionth of a metre
23	What does the prefix nano mean?	Billionth of a metre
24	How many times smaller is it between the prefixes milli, micro and nano?	1000
25	Which specialised cell has a tail to swim to the egg and mitochondria to provide energy for swimming?	Sperm cell
26	Which specialised cell has a large surface area and no nucleus to carry lots of oxygen?	Red blood cell
27	Which specialised cell has lots of hairs increase surface area for absorption?	Root hair cell
28	Which specialised cell contains many chloroplasts for photosynthesis?	Palisade cell

Topic: Cells

Date due: _____

29	What do we call a group of the same cells?	Tissue
30	What do we call a group of similar or different tissues working together?	Organ
31	What do we call a group of organs working together?	Organ system
32	What do we call a living thing with multiple organ systems working together?	Organism
33	What organ system is responsible for digesting food?	Digestive system
34	What organ system is responsible for transporting oxygen and carbon dioxide around the body?	Respiratory system
35	What organ system contains organs such as the ovaries or testis?	Reproductive system
36	What organ system transports blood around the body?	Circulatory system

Topic: Cells

Date due: _____

37	Name the 4 organs of a plant.	Leaves, root, stem, flower.
38	What is the name of the tissue that transports water through the plant?	Xylem
39	What is the name of the tissue that transports food produced by photosynthesis through the plant?	Phloem
40	In which organ would photosynthesis happen in a plant?	Leaf
41	Which organ in the plant anchors it and absorbs water and minerals?	Roots
42	Which organ in the plant attracts pollinators?	Flower
43	Which organ in the plant contains the tissues xylem and phloem?	Stem
44	In a leaf, where would most of the chloroplasts be found?	Near the top

Topic: Cells

Date due: _____

45	What is the name of the process where particles move from an area of high concentration to low concentration?	Diffusion
46	What do particles do during diffusion?	Spread out until their concentration is even
47	What factors affect the speed of diffusion?	Temperature, concentration, pressure
48	What substances diffuse into/out of cells?	oxygen / carbon dioxide / glucose
49	Would a large surface area increase or decrease the rate of diffusion?	Increase
50	Would a short diffusion pathway increase or decrease the rate of diffusion?	Increase