STOKE DAMEREL

Aspire Achieve Thrive

Half Term 5 and 6

Triple Science

Year 10

Name: _____

Tutor: _____

Tassomai - 2 Daily Goals per week - Deadline is Friday

Aspire | Achieve | Thrive

GREENSHAW LEARNING TRUST

Year 10 Homework Timetable

Monday	English Task 1	Ebacc Option A Task 1	Option C Task 1	
Tuesday	Tassomai	Option B Task 1	Modern Britain Task 1	
Wednesday	Sparx	Science Task 1	Option C Task 2	
Thursday	Ebacc Option A Task 2	Tassomai	Option B Task 2	Modern Britain Task 2
Friday	Sparx	Science Task 2	English Task 2	

Tassomai - 2 Daily Goals per week

Sparx - 4 tasks of Sparx per week

Option A (EBACC)
French
Geography
History

Open B
Art
Business Studies
Catering
Computer Science
History
Health & Social Care
Music
Sport
IT

Open C
Business Studies
Childcare
Catering
Drama
Geography
Health & Social Care
Triple Science
Sport

Half Term 5 - Year 10 - Homework Plan Science

Week/Date	Homework Task	Examination Question
Week 1	Biology retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on plant hormones
Week 2	Chemistry retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question identifying ions
Week 3	Physics retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on pressure
Week 4	Biology retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on ultrasound
Week 5	Chemistry retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on theories of evolution
Week 6	Physics retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on electrolysis

Half Term 6 - Year 10 - Homework Plan Science

Week/Date	Homework Task	Examination Question
Week 1	Biology retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam questions on homeostasis
Week 2	Chemistry retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on structure and bonding
Week 3	Physics retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on space
Week 4	Biology retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on the brain
Week 5	Chemistry retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on fuel cells
Week 6	Chemistry retrieval practice (one full page of answers and corrections) No copying of questions.	Answer the exam question on radioactivity

Biology Knowledge Organiser Half Term 5 and 6

#	Questions	Answer
1	In which organ is urea filtered out of the body?	Kidney
2	How are waste substances filtered out of the body	Waste is filtered in the kidneys by selective reabsorption. The useful substances such as glucose are reabsorbed and waste products such as urea are removed in the urine.
3	Name the main processes involved in the water cycle.	Evaporation, condensation, precipitation, percolation and transpiration.
4	Suggest why intensive farming is an advantage for farmers.	Intensive farming reduces energy waste and therefore makes farming more energy efficient.
5	Explain why intensive farming is more energy efficient than traditional farming.	During intensive farming the animals temperature is controlled so that less energy is wasted controlling body temperature. The animals' movement is also restricted so less energy is wasted due to movement. The animals are also closer together to conserve energy.
6	Explain why intensive farming can also be a disadvantage.	Diseases can spread rapidly, can cause emotional distress to the animals, can cause aggressive behaviour in animals, and lead to an increased use of antibiotics.
7	Why is being able to considerably lower body temperature an advantage for some animals?	Leds to less energy being lost in certain circumstances such as periods of inactivity.
8	Explain what happens in the body to regulate temperature if it gets too hot.	Sweating - the evaporation of sweat from the skin's surface causes cooling. Vasodilation - blood vessels dilate which means more blood can flow near the skin's surface leading to more energy being lost and therefore cooling.
9	Name the hormone responsible for plant responses to light and gravity.	Auxin
10	What is a plants response to light called?	Phototropism
11	How does auxin cause shoots to bend towards the light.	Auxin will build up on the side away from the light, this causes elongation just before the tip causing the shoot to bend towards the light.
12	Name the toxic substance produced when amino acids are broken down.	Urea
13	In which organ is urea made?	Liver
14	Identify the role of the brain.	
15	Name the 3 main sections of the brain.	Medulla, cerebellum, cerebral cortex
16	Which area of the brain is responsible for balance and coordination?	Cerebellum
17	Explain why Darwin’s theory of natural selection was not accepted straight away.	There was insufficient scientific evidence, the mechanism of inheritance was not yet known and it went against religious beliefs at the time.
18	Compare Darwin’s theory of evolution to Lamarck's theory of evolution.	Darwin suggested that evolution occurred due to mutations leading to a change, normally due to a change in environment. This would give a survival advantage so those with the mutation would survive, breed and pass on their genes. This would repeat over many generations. However, Lamarck suggested that

		features were acquired within an organism's lifetime and these characteristics were then passed onto offspring.
19	Describe how species can become isolated.	Species can become isolated by geographical locations.
20	Describe the process of speciation	Isolation can prevent interbreeding and the combination of genes within a species different mutations can take place in the isolated groups and create different phenotypes within a particular location. Over time species may evolve to be different to each other, and they will not be able to interbreed.
21	Explain the roles of Alfred Wallace and Charles Darwin in the development of the theory of evolution and the idea of speciation.	Charles Darwin described the speciation of finches after his studies of the birds on the Galapágos Islands. Wallace also proposed natural selection through his studies of warning colouration in different species.
22	Explain what Mendel discovered from his experiments on pea plants.	Mendel made the observation that pea plants had characteristics that varied from plant to plant. He carried out experiments crossing (mating) plants with different characteristics and concluded: ● Characteristics are determined by factors within the organism (now known to be genes) ● That the factors (genes) can be present in 2 different forms (now known as alleles) ● That the 2 factors (alleles) in an individual separate during gamete formation (now known as meiosis)
23	Explain how the development of the microscope contributed to Mendel's theories being accepted.	Microscopes allowed for chromosomes and cell division to be observed and therefore for Mendel's theory to be evidenced.
24	Name the two types of organism involved in decay.	Bacteria and fungi (decomposers)
25	Describe the conditions needed for decay to happen quickly.	The temperature must be warm and there must be water and oxygen present.
26	Explain why waste in a compost bin will decay more rapidly in the summer.	In the summer, the average temperature is higher which is more optimal for decomposers to work at. Therefore, decay will occur faster.
27	Describe the process of asexual reproduction.	Asexual reproduction involves only one parent reproducing to create genetically identical offspring.
28	Evaluate the benefits and drawbacks of sexual and asexual reproduction.	The benefits of asexual reproduction is that it only requires only one parent so it is faster and it can be used to make large amounts of the same crop. However, due to the lack of genetic variation, diseases can spread quickly through a population. Sexual reproduction leads to genetic variation but requires two parents so takes more time. It also means the species is able to adapt to new environments

Chemistry Knowledge Organiser Half Term 5 and 6

#	Questions	Answer
1	Before metals are recycled why are any other materials removed from them?	Removes any impurities so you have the pure metal recycled and not a mixture.
2	How is most metal recycled?	It is melted down and then reshaped.
3	How can glass bottles be recycled?	Crush and melt into new products.
4	Why do we need to recycle some resources?	Some resources are finite and need to be conserved / less energy will be required for recycling than extracting more raw materials.
5	Name the solution used to identify if a halide is present	Sodium hydroxide.

	in solution	
6	What colour precipitate will copper form?	Blue
7	What colour precipitate will aluminium, calcium and magnesium all form?	White
8	Name the solution used to test for the presence of sulfate ions in solution.	Barium chloride
9	What colour precipitate will form if sulfate ions are present in solution?	White
10	Mass is always conserved in a reaction but sometimes it may appear that mass is lost. Explain why.	If a gas is made as a product, the gas will rise and escape from the container so its mass will no longer be measured.
11	Mass is always conserved in a reaction but sometimes it may appear that mass is gained. Explain why.	If a gas is a reactant then its initial mass would not have been taken into account meaning it appears to have gained mass.
12	In a reaction, how can you tell that the reaction is complete?	No more product will form so the mass / volume will remain the same.
13	Describe how to test for the presence of chlorine gas.	Damp litmus paper will bleach (turn white) in the presence of chlorine gas.
14	What is the most abundant element in air?	Nitrogen/N2
15	Since the Earth's early atmosphere, what has happened to the percentages of oxygen, nitrogen and carbon dioxide.	The percentages of oxygen and nitrogen have increased and the percentage of carbon dioxide has decreased.
16	Why did the formation of the Earth's early oceans cause a decrease in atmospheric carbon dioxide concentrations?	The carbon dioxide dissolved in the water
17	Describe how the electric charge is carried through the electrolyte in a simple chemical cell.	Electrical current is carried by electrons in the wire and electrodes, but it is carried by anions and cations moving in opposite directions in the electrolyte.
18	Explain the difference between a cell and a battery.	A cell is a single unit of device that converts chemical energy into electrical energy. A battery is a collection of cells that converts chemical energy into electrical energy
20	Explain why non-rechargeable cells stop producing electricity.	In non-rechargeable cells, eg alkaline cells, a voltage is produced until one of the reactants is used up. When this happens, we say the battery 'goes flat'.
21	Explain why it is important that used cells and batteries are not thrown away in household rubbish.	Batteries that are thrown into ordinary bins, household waste or with other recycling are extremely dangerous as they can explode and cause fires
22	Identify the only chemical product from a hydrogen fuel cell.	Water
23	Write an overall equation for the reaction that takes place in a hydrogen fuel cell.	hydrogen + oxygen → water $2H_2(g) + O_2(g) \rightarrow 2H_2O(l)$
24	Explain why a fuel cell reaction is a redox reaction.	Both oxidation and reduction occurs within the cell.
25	Evaluate the use of a hydrogen fuel cell compared with a rechargeable cell.	The hydrogen oxygen fuel cell is an energy conversion device while the rechargeable battery is an energy storage device. Fuel cells can provide energy for longer than rechargeable cells but they are much more expensive.

Physics Knowledge Organiser Half Term 5 and 6

#	Questions	Answer
1	How can a glass block and a ray box be used to investigate refraction.	Shine a ray of light through a glass block and draw the ray of light entering and leaving the block. Draw around the glass block and then remove it. Join the lines together and draw a normal line at 90 degrees to the surface. Use a protractor to measure the angle of incidence and the angle of refraction. Repeat at different angles to observe the pattern.
2	State what the law of reflection states	The angle of incidence is equal to the angle of reflection.
3	List the stages involved in the lifecycle of our star the sun.	Nebula, protostar, main sequence star, red giant, white dwarf, black dwarf
4	List the stages involved in the lifecycle of a giant star much bigger than our sun.	Nebula, protostar, main sequence star, red supergiant, supernova, neutron star or black dwarf.
5	Explain why giant stars undergo a supernova when smaller stars don't	There is more pressure from the collapsing star causing the explosion.
6	What is red shift?	Red shift is when light from distant galaxies is shifted towards the red end of the spectrum and "stretched" as the galaxies move further away from us.
7	How does red shift provide evidence of red shift?	The furthest galaxies are moving away the fastest suggesting that they originated at the same point.
8	Why do scientific theories often change over time?	More evidence is gathered so models and theories can be developed and changed based on the new data.
9	Explain the difference between specular and diffuse reflection.	Specular reflection, which occurs with smooth surfaces like mirrors, causes light rays to reflect at the same angle as they hit the surface. Diffuse reflection, which occurs with rougher surfaces, scatters light rays in different directions.
10	Explain why it may be dangerous for bicycle reflectors to use specular reflection.	In order to make the light return the way it came instead of reflecting off into another cyclist or drivers eyes and potentially causing a crash.
11	Describe how ultrasound is different from sound.	Ultrasounds have a frequency greater than 20 kHz, which is beyond the frequency limit of sounds that humans are able to hear.
12	Describe what type of wave a p wave is.	P waves are longitudinal waves that travel through solids and liquids at a relatively fast speed.
13	Describe what type of wave an s wave is.	S waves are transverse waves that travel through solids only at a slower speed.
14	Explain why the paths of p and s waves are curved as they move towards and away from the Earth's core.	The p and s waves are refracted.
15	Describe what the principal focus of a lens is.	Parallel light rays that enter the lens converge . They come together at a point called the principal focus
16	Explain how you would change the shape of a convex lens to reduce the focal length	Make the lens bigger / fatter so light is refracted more.
17	Explain, using the idea of refraction, why light diverges after passing through a concave lens.	Light diverges going through a concave lens because they bend away from the lens's axis
18	Explain the difference between a real and a virtual image.	A real image is an image that can be projected onto a screen. Rays of light actually pass through the image. A virtual image cannot be projected onto a screen. It appears to come from behind the lens and can only be seen by looking through the lens.
19	Identify the colour of light that is reflected by a black object.	None, black objects absorb all light that shines on them

20	Explain how the colour of an object is determined.	The 'colour' of an object is the wavelengths of light that it reflects. For example, a red object will reflect only red wavelength light and will absorb all other colours.
21	Suggest what happens when light hits a grey object.	Grey reflects some and absorbs some of all colours
22	Explain how a red filter works to ensure the light is all red.	Red filters absorb all light other than red wavelength light which they reflect.
23	Explain the relationship between volume and pressure in gases.	Volume and pressure are inversely proportional. As the volume increases, the pressure decreases and vice versa. This is because a larger volume means there are less frequent collisions between the particles and the wall of the container meaning the pressure is decreased.
24	Describe what is meant by ‘doing work’ on a gas.	Doing work on a gas means transferring energy to the gas.
25	Define what background radiation is.	Background radiation is the energy that is present all around us at all times at safe levels.
26	State the difference between radioactive decay and nuclear fission.	Radioactive decay is the breakdown of a radioactive nuclei releasing alpha or beta particles and EM waves (gamma). Nuclear fission is the splitting of a large atomic nucleus into smaller nuclei.
27	Explain how a radioactive tracer could be used to check for a blockage in a blood vessel.	The tracer would show up on a scan and allow the doctors to observe if there is a blockage present.
28	Explain what nuclear fusion is.	Nuclear fusion is when two small, light nuclei join together to make one heavy nucleus.
29	Why are nuclear fusion power stations not yet in operation?	Humans have not yet managed to obtain high enough temperatures to carry out fusion over a long time period.
30	Explain how nuclear fission can result in a chain reaction.	In a nuclear reactor, a neutron is absorbed into a nucleus (typically uranium-235). This causes the nucleus to become uranium-236, which is violently unstable. The entire nucleus splits into two large fragments called 'daughter nuclei'. In addition to the 'daughter' products, two or three neutrons also explode out of the fission reaction and these can collide with other uranium nuclei to cause further fission reactions. This is known as a chain reaction.

WEEK 1 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 1 Half Term 5

Hormones called auxins control plant growth.

A student investigated plant growth responses in roots.

This is the method used.

1. Grow three bean seeds until their roots are 1 cm long.

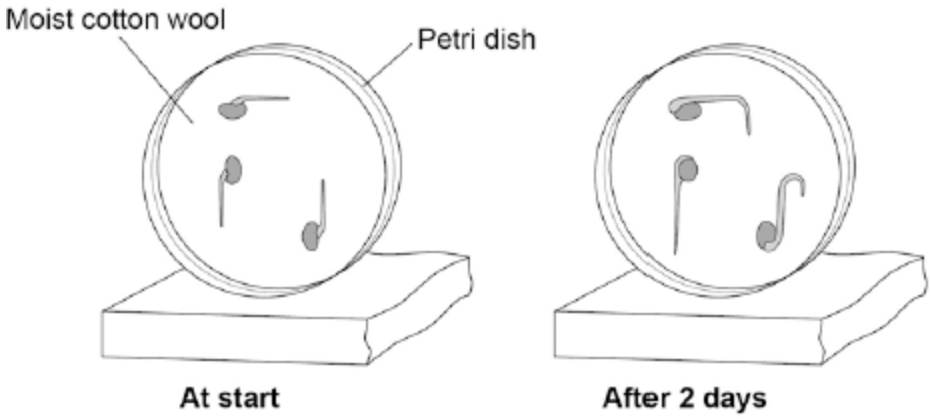
2. Attach the three bean seeds to moist cotton wool in a Petri dish.

   Each bean seed root should point in a different direction.

3. Fix the Petri dish vertically for 2 days in the dark.

Figure 1 shows the results.

Figure 1



(a) Describe the direction of growth of the bean roots after 2 days.

Give one reason for this growth response.

Direction of root growth _____

Reason _____

_____

(2)

(b) The student then noticed the shoots growing from the seeds.

He then:

1. put a light above the Petri dish but did not move the seeds

2. allowed the seeds to grow for 2 more days.

Predict the direction of growth of the bean shoots after 2 days.

Give one reason for your prediction.

Direction of root growth _____

Reason _____

(2)

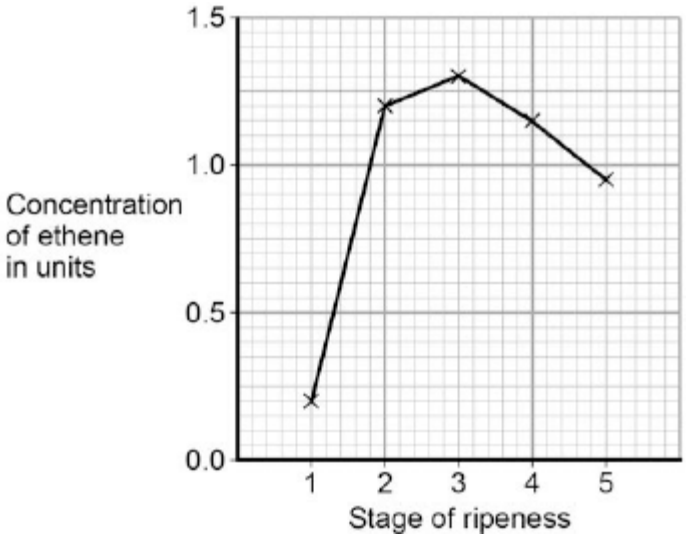
(c) Ethene is a plant hormone.

Ethene causes fruit to ripen.

Scientists measured the concentration of ethene found in fruit at different stages of ripeness.

Figure 2 shows the results.

Figure 2



At which stage of ripeness is there most ethene?

Tick **one** box.

Stage **1** ☐

Stage **2** ☐

Stage **3** ☐

Stage **4** ☐

Stage **5** ☐

(1)

WEEK 2 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 2 Half Term 5

Potash alum is a chemical compound.

The formula of potash alum is $KAl(SO_4)_2$

(a) Give a test to identify the Group 1 metal ion in potash alum.

You should include the result of the test.

Test _____

_____

Result _____

_____

(2)

(b) Name one instrumental method that could identify the Group 1 metal ion and show the concentration of the ion in a solution of potash alum.

_____

_____

(1)

A student identifies the other metal ion in potash alum.

The student tests a solution of potash alum by adding sodium hydroxide solution until a change is seen.

(c) Give the result of this test.

_____

_____

(1)

(d) This test gives the same result for several metal ions.

What additional step is needed so that the other metal ion in potash alum can be identified?

Give the result of this additional step.

Additional step _____

_____

Result _____

_____ **(2)**

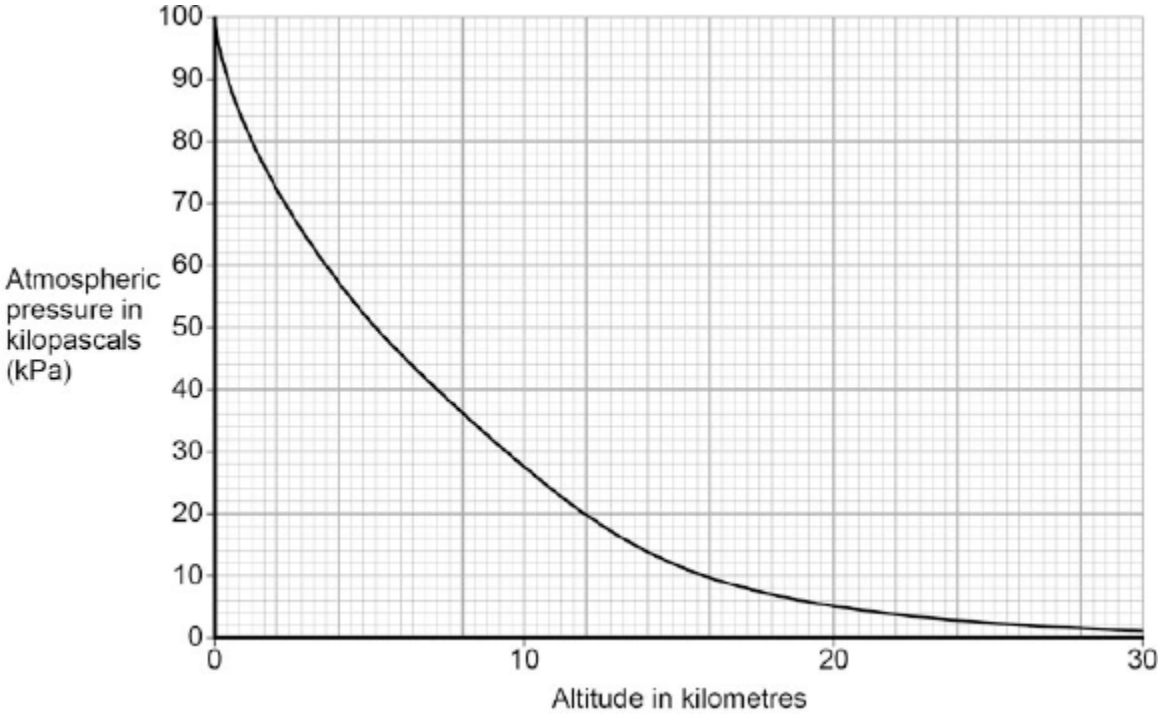
WEEK 3 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 3 Half Term 5

Figure 1 shows how atmospheric pressure varies with altitude.

Figure 1



(a) Explain why atmospheric pressure decreases with increasing altitude.

_____

_____

_____

_____

_____

_____

(3)

(b) When flying, the pressure inside the cabin of an aircraft is kept at 70 kPa.

The aircraft window has an area of 810 cm^2.

Use data from Figure 1 to calculate the resultant force acting on an aircraft window when the aircraft is flying at an altitude of 12 km.

Give your answer to two significant figures

Resultant force = _____ N

(5)

WEEK 4 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 4 Half Term 5

X-rays and ultrasound can both be used for scanning internal organs.

(a) Ultrasound is used to scan unborn babies but X-rays are not used to scan unborn babies.

Explain why.

_____

_____

_____

_____

_____

_____

(3)

(b) The behaviour of ultrasound waves when they meet a boundary between two different materials is used to produce an image.

Describe how.

_____

_____

_____

_____

(2)

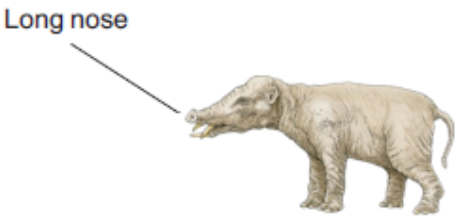
WEEK 5 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

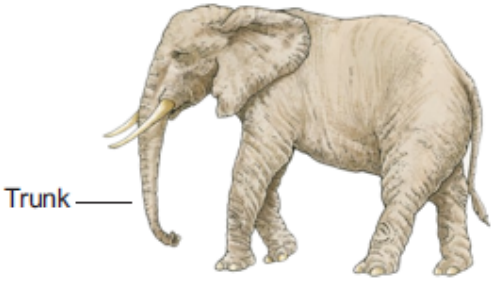
WEEK 5 Half Term 5

Phiomia lived about 35 million years ago.

Phiomia



African elephant



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Both *Phiomia* and the African elephant reach up into trees to get leaves.

In the 1800s, Darwin and Lamarck had different theories about how the long nose of *Phiomia* evolved into the trunk of the African elephant.

(a) (i) Use Darwin's theory of natural selection to explain how the elephant's trunk evolved.

_____

_____

_____

_____

_____

_____

_____

_____

(4)

(ii) Lamarck's theory is different from Darwin's theory.

Use Lamarck's theory to explain how the elephant's trunk evolved.

_____

_____

_____

_____ **(2)**

(b) (i) In the 1800s, many scientists could not decide whether Lamarck's theory or Darwin's theory was the right one.

Give two reasons why.

1. _____

_____

2. _____

_____

(2)

WEEK 6 Half Term 5

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 6 Half Term 5

This question is about chemical reactions and electricity.

(a) Electrolysis and chemical cells both involve chemical reactions and electricity.

Explain the difference between the processes in electrolysis and in a chemical cell.

_____

_____

_____

_____

(2)

(b) A teacher demonstrates the electrolysis of molten lead bromide.

Bromine is produced at the positive electrode.

Complete the half equation for the production of bromine.

You should balance the half equation.

$$Br^- \rightarrow \quad\quad +$$

(2)

(c) Two aqueous salt solutions are electrolysed using inert electrodes.

Complete the table below to show the product at each electrode.

Salt solution	Product at positive electrode	Product at negative electrode
Copper nitrate		copper
Potassium iodide		

(3)

HALF TERM 6

WEEK 1 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 1 Half Term 6

Conditions inside the body must be kept constant.

(a) Urea must be removed from the body.

(i) Name the organ which makes urea.

_____

(1)

(ii) Which organ removes urea from the body?

_____

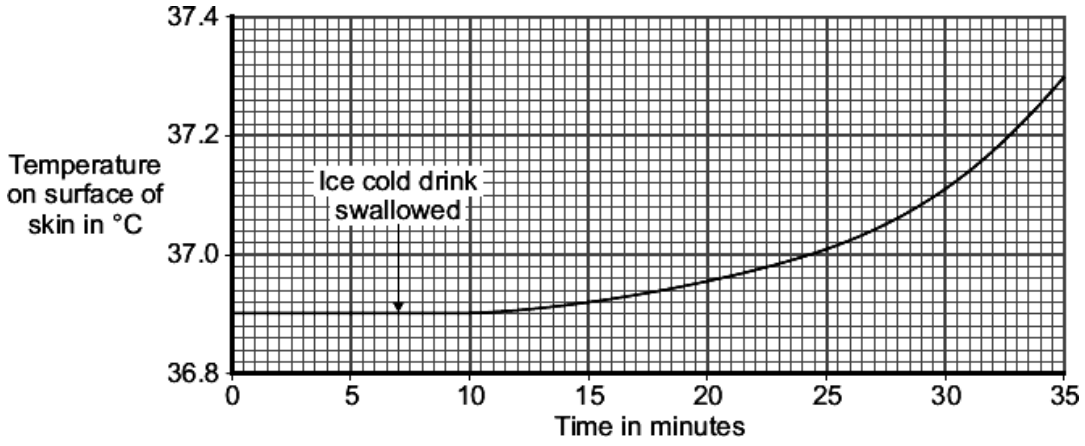
(1)

(iii) What is urea made from?

_____

(1)

A man sat in a room where the temperature was maintained at 40 °C. The temperature on the surface of his skin was monitored for 35 minutes. He swallowed an ice cold drink at the time indicated on the graph.



(b) The sweat glands contribute to the change in the temperature on the surface of the skin shown on the graph.

Explain how.

_____

_____

_____

_____

_____ **(2)**

(c) The blood vessels near the surface of the skin also contribute to the changes in skin temperature shown on the graph.

(i) How do the blood vessels in the skin change when the core body temperature falls?

_____

_____

(1)

(ii) How does this change in the blood vessels explain the change in the skin temperature shown on the graph?

_____

_____

(1)

(Total 7 marks)

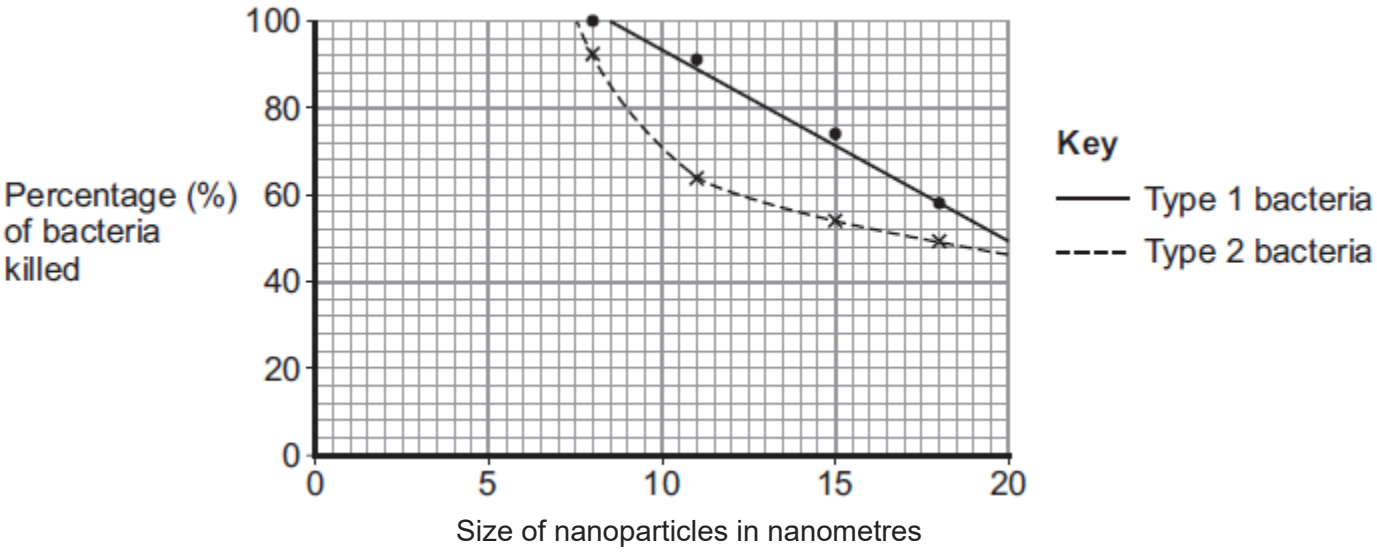
WEEK 2 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 2 Half Term 6

Magnesium oxide nanoparticles can kill bacteria.

The figure below shows the percentage of bacteria killed by different sized nanoparticles.



(a) (i) Give two conclusions that can be made from the figure above.

_____

_____

_____

_____

_____

_____

(2)

(ii) Points are plotted for only some sizes of nanoparticles.

Would collecting and plotting data for more sizes of nanoparticles improve the conclusions?

Give a reason for your answer.

_____

_____

(1)

(b) Magnesium oxide contains magnesium ions (Mg^{2+}) and oxide ions (O^{2-}).

Describe, as fully as you can, what happens when magnesium atoms react with oxygen atoms to produce magnesium oxide.

(4)

(Total 7 marks)

WEEK 3 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 3 Half Term 6

The early Universe contained only the lightest element.

(a) Use the correct answer from the box to complete the sentence.

hydrogen	iron	uranium

The early Universe contained only _____ .

(1)

(b) Use the correct answer from the box to complete the sentence.

main sequence star	protostar	supernova

The heaviest elements are formed only in a _____ .

(1)

(c) Use the correct answer from the box to complete the sentence.

red giant	red super giant	white dwarf

Only a star much bigger than the Sun can become a _____ .

(1)

(d) The Universe now contains a large variety of different elements.

Describe how this happened.

_____

_____

_____

_____

_____

_____

_____

_____

(4)

(Total 7 marks)

WEEK 4 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 4 Half Term 6

A man hurt his head in an accident.
Doctors found that he could not remember anything that had happened on the day of the accident.

(a) (i) Name the part of the brain concerned with memory.

_____

(1)

(ii) Name one method the doctors could use to find out how much the brain was damaged.

_____

(1)

(b) The doctors were worried that the man might also have injured his spine.
They touched different areas of his skin with a sharp point.
They asked him to tell them each time if he could feel the sharp point.

(i) Explain how the information about the sharp point touching the skin reaches the man's brain.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(6)

WEEK 5 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

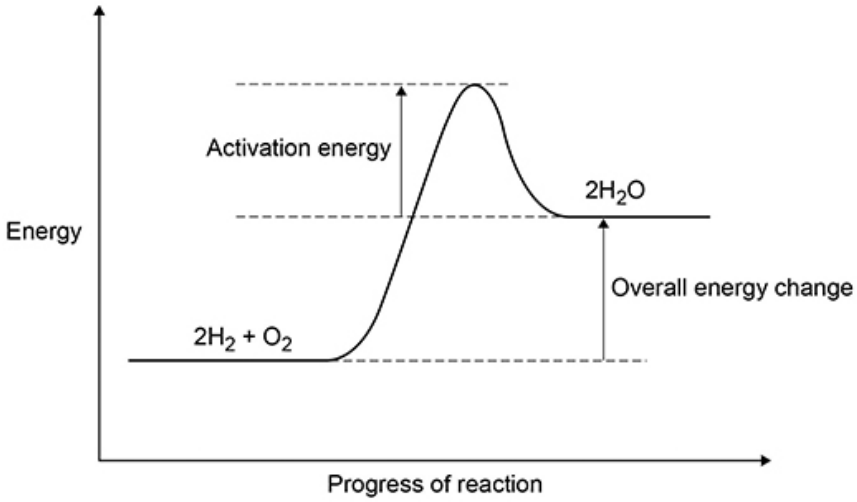
WEEK 5 Half Term 6

The reaction between hydrogen and oxygen releases energy.

(a) A student drew a reaction profile for the reaction between hydrogen and oxygen.

Figure 1 shows the student's reaction profile.

Figure 1



The student made two errors when drawing the reaction profile.

Describe the two errors.

1 _____

_____

2 _____

_____

(2)

(b) The reaction between hydrogen and oxygen in a hydrogen fuel cell is used to produce electricity.

Hydrogen fuel cells and rechargeable cells are used to power some cars.

Give two advantages of using hydrogen fuel cells instead of using rechargeable cells to power cars.

1 _____

_____

2 _____

_____

(2)

(c) Reactions occur at the positive electrode and at the negative electrode in a hydrogen fuel cell.

Write a half equation for one of these reactions.

_____

(1)

WEEK 6 Half Term 6

Fill the page with retrieval practice answers (cover the questions on your knowledge organiser and try to write them down). Mark and correct in green.

WEEK 6 Half Term 6

Radioactive waste from nuclear power stations is a man-made source of background radiation.

(a) Give one other man-made source of background radiation.

_____

(1)

Nuclear power stations use the energy released by nuclear fission to generate electricity.

(b) Give the name of one nuclear fuel.

_____

(1)

(c) Nuclear fission releases energy.

Describe the process of nuclear fission inside a nuclear reactor.

_____

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_____

(4)

(d) A new type of power station is being developed that will generate electricity using nuclear fusion.

Explain how the process of nuclear fusion leads to the release of energy.

_____

_____

_____

_____

(2)

(e) Nuclear fusion power stations will produce radioactive waste. This waste will have a much shorter half-life than the radioactive waste from a nuclear fission power station.

Explain the advantage of the radioactive waste having a shorter half-life.

_____

_____

_____

_____

(2)

(Total 10 marks)

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