Scott

Scott Medical and Healthcare College

Summer Term

Term 3

Science

Year 10

Name: _____

Tutor: _____

Care to Learn

Learn to Care

Year 10 Homework Timetable

GREENSHAW LEARNING TRUST

Monday	English Task 1	Option A Task 1	Option C Task 1
Tuesday	Option B Task 1	Sparx Maths	Science Task 1
Wednesday	Sparx Maths	Option C Task 2	Sparx Science
Thursday	Option A Task 2	Sparx Science	Option B Task 2
Friday	Science Task 2	Science Task 2	

Sparx Science
• Complete 100% of their assigned homework each week
Sparx Maths
• Complete 100% of their assigned homework each week

Option A
History
Geography

Option B
Child Development
Health and Social Care

Option C
Psychology
Health and Social Care
Sport

Half Term 5 (5 weeks) - Year 10		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 1 21st April 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 2 28th April 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 3 5th May 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 4 12th May 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 5 19th May 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions

Half Term 6 (7 weeks) - Year 10		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 6 2nd June 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 7 9th June 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 8 16th June 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 9 23rd June 2025	**Mock Exams**	**Mock Exams**
Week 10 30th June 2025	**Mock Exams**	**Mock Exams**
Week 11 7th July 2024	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions
Week 12 14th July 2025	Complete 1 page of retrieval quizzing	Complete the exam question. Fill the remainder of the page with retrieval quizzing on your Red and Amber questions

WEEK 1 Questions (cover and quiz) - Cell Biology

Question	Answer
How can we increase the rate of diffusion?	Increase the concentration gradient, decrease the diffusion distance/thickness of surface, increase the surface area
How is a root hair cell adapted for osmosis?	Lots of hairs/projections that increase the surface area so more water can be absorbed.
How are cells in the small intestine adapted for active transport?	Many mitochondria release energy for active transport. Villi to increase surface area. Good blood supply to maintain concentration gradient.
How are fish gills adapted for efficient exchange?	Large surface area on gills, constant concentration gradient between blood and water, thin diffusion pathway
What is required for active transport?	Energy from respiration
What is a concentration gradient?	The difference between two concentrations
Define the terms solute and solvent	Solute- Soluble solid/substances that dissolves Solvent- A liquid that the dissolves the solute
What are the differences between hypertonic, hypotonic and isotonic?	Hypertonic- less solute inside the cell, more outside Hypotonic- more solute inside, less outside Isotonic- same amount of solute inside/outside cell
How are single-celled organisms adapted to efficient transport of molecules?	Have a large surface area to volume ratio. This allows sufficient, quick transport of molecules into and out of the cell.
What is a stem cell?	An undifferentiated cell that has the potential to specialise
Name another type of stem cell found in animals	Embryonic stem cells
Where are embryonic stem cells found?	Embryos, umbilical cord
Where are adult stem cells found?	Bone marrow
What is a plant stem cell called?	Meristems
Where would you find plant stem cells?	Meristem (tip of plant)
How are plant stem cells different from adult stem cells or embryonic stem cells?	They can differentiate at any time, throughout the life of the plant
What is an advantage of using plant stem cells?	Can be used to produce clones of plants quickly and economically. Rare species can be cloned and prevented from extinction. Crop plants with special (e.e disease resistance) can be cloned to produce lots of identical plants for farmers
What are the advantages of using adult stem cells?	Easier to obtain, effective, no ethical issues, abundant supply, little or no problems with immune rejection
What are the advantages of using embryonic stem cells?	Can differentiate into any type of cell. Potential to cure diseases such as blindness, diabetes and cancers
Why might people be against the use of stem cells?	Ethical reasons surrounding the use of embryos, may not know the side effect, infection, expensive, potential rejection

Week 1 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 1 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

Figure 1

The man increases Force A. Explain what happens to Force B and to the movement of the man. (4)

Improvement Work: The man increases Force A. Explain what happens to Force B and to the movement of the man. (4)

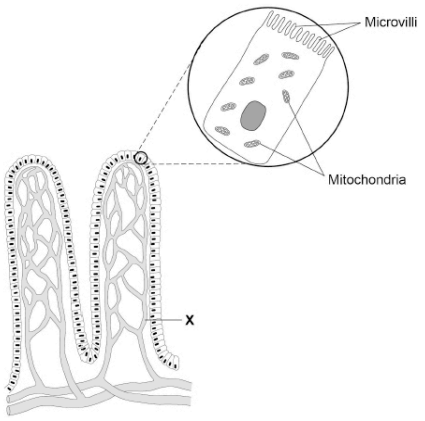
WEEK 2 Questions (cover and quiz) - Bonding

Question	Answer
What kinds of elements usually form molecules?	Non-metals
What kinds of bonds are found in molecules?	Covalent
How strong are the forces of attraction **within** simple covalent molecules?	They are very strong.
How strong are the forces of attraction **between** simple covalent molecules?	They are relatively weak.
Are simple molecules usually good conductors of electricity at room temperature?	No, they are poor conductors of electricity.
What is the name for lots of monomers joined together to form large molecular chains?	Polymers
What simple molecule joins to form poly(ethene)?	Ethene
Why might simple molecules, such as methane, have low melting points?	Because they have weak intermolecular forces of attraction between them
What are monomers?	Small molecules that can be joined to make polymers
What is poly(ethene) made of?	Hydrogen and carbon or ethene monomers
What are polymers?	Many monomers joined together
In what types of bonds are pairs of electrons shared?	Covalent bonds
What is the monomer unit in poly(propene)?	Propene
What are intermolecular forces?	Forces of attraction between molecules
Do simple molecules have strong intermolecular forces between them?	No. They are described as weak.
What type of bonding is between the atoms in a molecule of water?	Covalent
What type of structure does water have?	Simple covalent molecule
What strength of forces are there between different molecules of water?	Weak
Does pure water conduct electricity?	No
What is a typical property of a metal?	High melting point, shiny when polished, malleable, high density, conducts electricity
What does the term malleable mean?	Can be hammered or bent into a different shape
What type of bonding involves sharing electrons?	Covalent
What kind of bonding and structure tends to be associated with low melting points and boiling points?	Covalent, simple molecular
Which kind of bonding and structure allows substances to conduct electricity when solid?	Metallic
Why does sodium chloride conduct electricity when molten but not when solid?	Ions are free to move when molten and the charged ions can carry the current.
Name a substance that has a very high melting point and is a non-conductor of electricity in any state.	Diamond
Why do lattice structures have high melting points?	Lots of energy is needed to break many strong bonds.
Why does sodium metal conduct electricity?	It contains freely moving delocalised electrons, and the charged electrons can carry the current.
Name two types of bonding model.	From: molecular formula; structural formula; dot and cross diagram; all shells; dot and cross diagram outer shell only; 3D ball and stick; 2D space-filling; or 3D space-filling (other answers are possible)

Week 2 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 2 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

Figure 1



Explain how villi are adapted for efficient absorption of sugar molecules. (4)

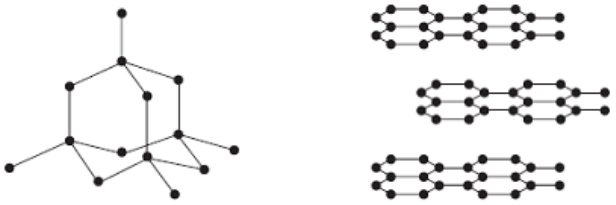
Improvement Work: Explain how villi are adapted for efficient absorption of sugar molecules. (4)

WEEK 3 Questions (cover and quiz) - Energy

Question	Answer
What is the store of energy that is associated with temperature changes?	Thermal energy
What is the word equation for thermal energy?	change in thermal energy = mass x specific heat capacity x temperature change
What is the symbol equation for thermal energy?	$\Delta E = m\ c\ \Delta T$
What is the unit of specific heat capacity?	J/kg °C
What is the specific heat capacity of a substance?	It is the amount of energy required to raise the temperature of 1 kg of the substance by 1 °C.
What is the definition of power?	Power is defined as the rate at which energy is transferred or the rate at which work is done.
What is the word equation for power?	power = energy transferred ÷ time, power = work done ÷ time
What is the symbol equation for power?	P = E/ t P = W/ t
What is the unit of power?	Watts, W
What does 1 Watt mean in terms of Joules and seconds?	1 Joule of energy is transferred every second.
What is the most common way that energy is "wasted"?	Thermal energy / heating the surroundings
Give some examples of how to reduce unwanted energy transfers.	Thermal insulation, lubrication.
What does thermal conductivity mean?	The higher the thermal conductivity of a material the higher the rate of energy transfer by conduction across the material.
What factors affect the rate of cooling of a building?	The thickness and thermal conductivity of its walls.
What does the efficiency of an energy transfer tell us?	How much of the total input energy is transferred usefully
What is the word equation for efficiency?	efficiency = useful output energy transfer ÷ total input energy transfer x 100% OR efficiency = useful power output ÷ total power input x 100%
What is the definition of a renewable energy resource?	It is one that can be replaced as quickly as it is used.
What are some examples of renewable energy resources?	Biofuel, wind, hydro-electricity, geothermal, tidal, solar, wave
What is the definition of non-renewable energy?	It is one that cannot be replaced as it takes too long.
What are some examples of non-renewable energy resources?	Fossil fuels (coal, oil, natural gas), nuclear
What are some examples of uses of energy resources?	Transport, electricity generation, heating.
What does the word reliable mean?	Always available when you need it.
Why are some energy sources more reliable than others?	Some resources rely on the weather (solar/wind power) which may not always be favourable.
What environmental impact do some resources cause?	Burning fossil fuels and biofuel release CO_2 into the atmosphere which contributes to global warming.
Although we know that these environmental issues arise, why can we not always deal with them?	There may be political, social, ethical or economic considerations.

Week 3 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 3 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.



Diamond Graphite

Use the diagrams above and your knowledge of structure and bonding to explain why graphite is very soft and diamond is very hard. (4)

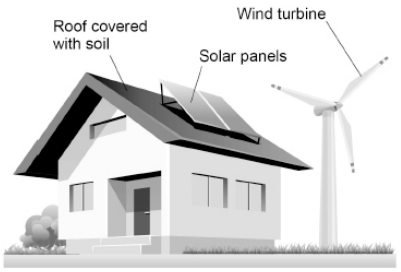
Improvement Work: Use the diagrams above and your knowledge of structure and bonding to explain why graphite is very soft and diamond is very hard. (4)

WEEK 4 Questions (cover and quiz) - Inheritance 1

Question	Answer
What are the two methods of reproducing?	Asexual reproduction and sexual reproduction.
How many parents are involved in asexual reproduction?	One.
Which type of reproduction produces genetically identical offspring?	Asexual reproduction.
Which type of cell division is involved in asexual reproduction?	Mitosis.
Which type of cell division produces gametes (sex cells)?	Meiosis.
Which type of reproduction involves gametes?	Sexual reproduction.
Which type of cell division produces genetically identical cells?	Mitosis.
Which type of cell division produces genetically different cells?	Meiosis.
What are the names of the male gametes in flowering plants and animals?	Pollen (plants), sperm (animals).
What are the names of the female gametes in flowering plants and animals?	Eggs.
How many sets of chromosomes are found in body cells?	Two sets of chromosomes.
How many sets of chromosomes are found in gametes?	One set of chromosomes.
Which type of cell division divides twice to form four cells?	Meiosis.
Which type of cell division divides once to form two cells?	Mitosis.
What type of cell division occurs as an embryo develops?	Mitosis.
What happens to the number of chromosomes when the gametes fuse?	The number of chromosomes is restored to the normal number (one set from the female gamete and one set from the male gamete).
What is a genome?	The entire genetic material of an organism.
What was the human genome project?	A study to identify the sequence of all the genes in a human.
Why was the human genome project important?	It helps us to search for genes linked to different types of diseases, understand and treat inherited disorders, and trace human migration patterns from the past.
What shape is a DNA molecule?	A double helix.
What is a gene?	A small section of DNA that codes for a sequence of amino acids to make a protein.
What is a chromosome?	A structure inside the nucleus of a cell that is made up of DNA.
What are chromosomes made of?	DNA (deoxyribonucleic acid).

Week 4 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 4 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.



Explain why it is a good idea for the eco-house to have both a wind turbine and solar panels. (2)

Improvement Work: Explain why it is a good idea for the eco-house to have both a wind turbine and solar panels. (2)

WEEK 5 Questions (cover and quiz) - Atoms + Periodic Table

Question	Answer
Define the term inert.	Unreactive
Explain why the noble gases are inert.	They have full outer shells, so do not need to gain or lose electrons
What is a trend?	A pattern in properties
State the trend in the melting points of the alkali metals.	Melting point reduces further down the group
Write a name for this chemical equation LiOH	Lithium hydroxide
Write a name for this chemical equation KOH	Potassium hydroxide
Define a displacement reaction?	A reaction in which a more reactive element takes the place of a less reactive element in a compound
Explain why fluorine is more reactive than chlorine.	Fewer shells/electrons, less shielding (or stronger attraction from nucleus), easier to gain electrons
Explain why potassium is more reactive than lithium.	More shells/electrons, less shielding (or weaker attraction from nucleus), easier to lose electrons
Explain why bromine is less reactive than chlorine.	More shells/electrons, more shielding (or weaker attraction from nucleus), harder to gain electrons
Explain why sodium is less reactive than caesium	Fewer shells/electrons, less shielding (or stronger attraction from nucleus), harder to lose electrons
What did Chadwick discover?	The neutron
What elements are in sodium fluoride?	Sodium and fluorine
What elements are in potassium nitrate?	Potassium nitrogen and oxygen
Write down the charge of a lithium ion.	+1
Write down the charge of a chloride ion.	-1
What are two isotopes of the same element?	Atoms of the same element with different numbers of neutrons
The number of _____ and _____ are the same in atoms of different isotopes.	Protons and electrons
Who in 1914 revised the model of the atom suggesting electrons are in certain energy levels	Bohr
Who discovered the electron?	Thomson
Who suggested atoms behaved as if they were tiny, hard spheres?	Dalton
Describe the structure of the transition metals.	Lattice of positive ions surrounded by delocalised electrons.
State the properties of the transition metals.	Hard, shiny, conduct heat and electricity, ductile
What is an alloy?	A metal mixed with other metals or elements
Why are alloys often used?	Atoms of other elements change the structure of metals, giving them more useful properties (e.g. harder, stronger).

Week 5 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 5 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

Scientists working on the ‘Human Genome Project’ have now mapped the entire genetic code of humans. Explain one way this could be important for people in the future. (2)

Improvement Work: Scientists working on the ‘Human Genome Project’ have now mapped the entire genetic code of humans. Explain one way this could be important for people in the future. (2)

WEEK 6 Questions - Cover and quiz
Use your blue mock sheet for your retrieval practice this week.

Week 6 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 6 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

Explain why caesium is more reactive than sodium. You should answer in terms of electrons. (4)

Improvement Work: Explain why caesium is more reactive than sodium. You should answer in terms of electrons. (4)

WEEK 7 Cover and quiz

Use your blue mock sheet for your retrieval practice this week.

Week 7 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 7 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

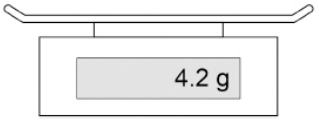


Figure 1 shows the balance before anything was added. What type of error is shown on the balance and how could the student get a correct value for the mass of the cube from the balance? (2)

Improvement Work: What type of error is shown on the balance and how could the student get a correct value for the mass of the cube from the balance? (2)

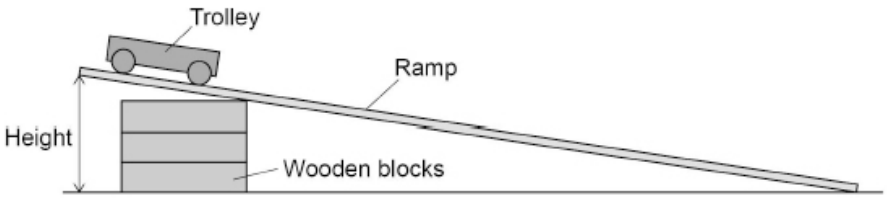
WEEK 8 Cover and quiz

Use your blue mock sheet for your retrieval practice this week.

Date: 16th June

Week 8 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 8 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing on your Red and Amber questions on your blue sheet.



A student investigated how the height of a ramp affects the acceleration of a trolley down the ramp. Plan an investigation to determine how the height of the ramp affects the acceleration of the trolley. (6)

Improvement Work: A student investigated how the height of a ramp affects the acceleration of a trolley down the ramp. Plan an investigation to determine how the height of the ramp affects the acceleration of the trolley. (6)

WEEK 9 Questions - (Cover and Quiz) - Inheritance 2

Question	Answer
What are different forms of the same genes called?	Alleles.
Which type of allele is expressed in the phenotype even if only one version of it is present?	Dominant
Which type of allele needs two versions to be present for it to be expressed in the phenotype?	Recessive
What keyword describes an individual with two identical alleles for a characteristic?	Homozygous
What keyword describes an individual with two different alleles for a characteristic?	Heterozygous
Define the keyword genotype.	All the alleles present in an individual.
What is the phenotype of an individual?	The physical appearance of an individual.
What are the sex chromosomes for male and female mammals?	XX- female, XY - male.
Give an example of a disease caused by a recessive allele?	Cystic fibrosis.
What does it mean if someone is a carrier for a genetic disorder?	They are able to pass the recessive gene to their offspring but do not suffer the disease themselves.
What is embryo screening?	Testing to see if an embryo (or foetus) carries any alleles that cause genetic disorders.
What keyword describes 'the differences in characteristics in a population'?	Variation.
What causes variation?	Variation is caused by genes, the environment and a combination of both genes and the environment.
What causes genetic variation?	Mutations and sexual reproduction.
What is a mutation?	A change in the DNA code.
Do all mutations lead to new phenotypes?	No, most mutations have no effect on the phenotype
Describe the theory of evolution by natural selection.	• There is **variation** in a population due to mutations and sexual reproduction • There is an **environmental change** which makes some characteristics advantageous • The best adapted organisms survive (**survival of the fittest**) • Those organism reproduce and offspring **inherit** the genes for the advantageous characteristics • Eventually **all of the organisms born have this characteristic**
What is a fossil?	Fossils are the remains of organisms from millions of years ago that can be found in rocks, ice and other places.
How are fossils formed?	They can be formed by the absence of decay (fossils in ice), the replacement of parts by minerals as they decay (fossils in rocks) or preserved traces of organisms (footprints).
Why is the fossil record incomplete?	Many early forms of life were soft-bodied, which means that they have left few traces behind. What traces there were have been mainly destroyed by geological activity.
What information do scientists get from fossils?	How much or how little different organisms have changed as life developed on Earth.
What changes in the environment can cause extinction?	Change in temperature, new predators, new diseases, better competitors, long term geological changes to the environment, single catastrophic events (e.g. volcanic activity).

Week 9 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 9 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing on your Red and Amber questions on your blue sheet.

Moose have distinct characteristics such as antlers. Describe how moose may have evolved to have large antlers. (5)

Improvement Work: Moose have distinct characteristics such as antlers. Describe how moose may have evolved to have large antlers. (5)

WEEK 10 Questions (cover and quiz) - Chemical Changes

Question	Answer
What term describes a substance that attacks metals, stonework and skin?	Corrosive
What type of substance turns litmus paper red?	Acid
What happens in all chemical reactions?	New substances are formed.
What kind of reaction occurs between an acid and an alkali?	Neutralisation
What do you call a solution which is neither acidic nor alkaline?	Neutral
Give the name and formula of a common laboratory acid.	Hydrochloric acid (HCl), nitric acid (HNO_3), sulfuric acid (H_2SO_4), etc
Which ion is in excess in all acid solutions?	Hydrogen ions or H+ ions
Which ion is in excess in all alkali solutions?	Hydroxide ions or OH– ions
What scale is used for measuring acidic and alkaline properties?	The pH scale
Name three examples of acid/alkali indicators apart from universal indicator.	Litmus, methyl orange and phenolphthalein
What pH values are acidic?	Below 7
What happens to the pH as the H+ ion concentration increases?	It decreases
If a solution has the same concentration of hydrogen ions as hydroxide ions, how is it described?	Neutral or pH = 7
What word describes a solution that contains a large amount of solute in a small volume of solvent?	Concentrated
How can a solution be made more dilute?	By adding solvent/water
What kind of reaction occurs between an acid and a base?	Neutralisation
What is formed when an acid reacts with a base like a metal oxide?	Salt + water
What acid would be used to make zinc sulfate from zinc oxide?	Sulfuric acid
What process can be used to separate an insoluble solid from a liquid?	Filtration
How can a sample of a dissolved salt be obtained from a salt solution?	Evaporation of the water

Week 10 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 10 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.

A student plans a method to prepare pure crystals of copper sulfate.
The student's method is:

1. Add one spatula of calcium carbonate to dilute hydrochloric acid in a beaker.
2. When the fizzing stops, heat the solution with a Bunsen burner until all the liquid is gone.

The method contains several errors and does not produce copper sulfate crystals. Explain the improvements the student should make to the method so that pure crystals of copper sulfate are produced. (6)

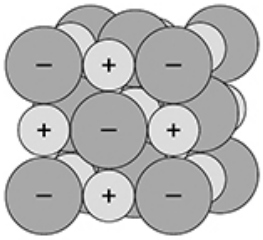
Improvement Work: Explain the improvements the student should make to the method so that pure crystals of copper sulphate are produced. (6)

WEEK 11 Questions (Cover and quiz) - Working Scientifically

Question	Answer
What is the definition of resolution?	The smallest measurement that can be made with a measuring device.
What is the definition of range?	Difference between the largest value and the smallest value.
What is the resolution of an ordinary 15 or 30 cm ruler?	1mm
What is the definition of a systematic error?	Difference between measurement and actual value that is the same each time.
What is a zero error?	An error caused by the reading not being zero when no measurement is being made.
What is the definition of precise?	Repeated measurements are close together (small random errors)
Why does doing repeats and taking a mean improve the accuracy of a measurement?	Reduces the effect of random error
What is the definition of reliable?	Anyone could get the same experimental result again
What is the definition of repeatable?	If same person did same experiment again, they would get the same results
Which of the following gives the best definition of reproducible?	If someone else did the same experiment, they would get same results
Why might a scientist's conclusion not be valid?	Hasn't kept control variables constant; confused correlation with causation; other factors involved.
What is the definition of accurate?	How close the measurement is to the actual value.
What is the definition of resolution?	The smallest measurement that can be made with a measuring device.
Which number is represented by the prefix centi?	0.01
Which number is represented by the prefix kilo?	1,000
Which number is represented by the prefix Giga?	1,000,000,000
What prefix do we use to represent (1/1000 or 0.001)?	milli
What prefix do we use to represent (1/1,000,000,000 or 0.000000001)?	nano
What does gradient tell us about a graph?	How steep the line is
What is the gradient of a horizontal section of graph?	Zero
How do we find the y intercept of a graph?	Find the point at which the line crosses the vertical (y) axis.
What is the rule for calculating the area of a trapezium?	½ (a+b) x h
What does the graph of a directly proportional relationship look like?	Straight line through the origin
What does the graph of an inversely proportional relationship look like?	Downwards sloping curve, never touches either axis

Week 11 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 11 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.



Sodium chloride

Explain why sodium chloride conducts electricity when molten but not when solid. (3)

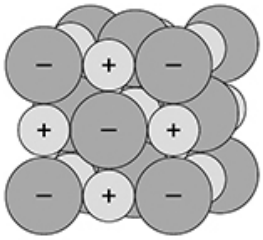
Improvement Work: Explain why sodium chloride conducts electricity when molten but not when solid. (3)

WEEK 12 Questions (Cover and quiz) - Working Scientifically

Question	Answer
What is the definition of resolution?	The smallest measurement that can be made with a measuring device.
What is the definition of range?	Difference between the largest value and the smallest value.
What is the resolution of an ordinary 15 or 30 cm ruler?	1mm
What is the definition of a systematic error?	Difference between measurement and actual value that is the same each time.
What is a zero error?	An error caused by the reading not being zero when no measurement is being made.
What is the definition of precise?	Repeated measurements are close together (small random errors)
Why does doing repeats and taking a mean improve the accuracy of a measurement?	Reduces the effect of random error
What is the definition of reliable?	Anyone could get the same experimental result again
What is the definition of repeatable?	If same person did same experiment again, they would get the same results
Which of the following gives the best definition of reproducible?	If someone else did the same experiment, they would get same results
Why might a scientist's conclusion not be valid?	Hasn't kept control variables constant; confused correlation with causation; other factors involved.
What is the definition of accurate?	How close the measurement is to the actual value.
What is the definition of resolution?	The smallest measurement that can be made with a measuring device.
Which number is represented by the prefix centi?	0.01
Which number is represented by the prefix kilo?	1,000
Which number is represented by the prefix Giga?	1,000,000,000
What prefix do we use to represent (1/1000 or 0.001)?	milli
What prefix do we use to represent (1/1,000,000,000 or 0.000000001)?	nano
What does gradient tell us about a graph?	How steep the line is
What is the gradient of a horizontal section of graph?	Zero
How do we find the y intercept of a graph?	Find the point at which the line crosses the vertical (y) axis.
What is the rule for calculating the area of a trapezium?	½ (a+b) x h
What does the graph of a directly proportional relationship look like?	Straight line through the origin
What does the graph of an inversely proportional relationship look like?	Downwards sloping curve, never touches either axis

Week 12 Task 1 - 1 Page of retrieval quizzing - do not use full sentences

Week 12 Task 2 - Complete the exam question then fill the remainder of the page with retrieval quizzing. Use full sentences for the exam question, but not the quiz.



Explain why sodium chloride has a high melting point. (3)

Improvement Work: Explain why sodium chloride has a high melting point. (3)