



The Holt School

# **REVISION LIST FOR YEAR 10 PPEs For Summer Term 2019**



# Subject List

---

English

Mathematics

Philosophy of Religion

Science (Biology, Chemistry, Physics)

Business

Child Development

Computer Science

Design & Technology (Core, Textiles, Resistant Materials, Graphics)

Drama

Economics

Food Preparation & Nutrition

French

Geography

German

Health & Social Care

History

Music

Physical Education

Spanish

## English Language Paper 2 Question 5

5	<b>Writing a viewpoint</b>  <b>You might be asked to write a:</b> <ul style="list-style-type: none"><li>• letter</li><li>• article</li><li>• text for a leaflet</li><li>• text of a speech</li><li>• essay</li></ul>	<b>40</b>	<ul style="list-style-type: none"><li>• Planning is CRUCIAL - the examiners will expect to see it</li><li>• 16 marks for technical accuracy and vocabulary so pay careful attention to this - proofread</li><li>• Engage the reader by doing something original like taking on a voice e.g. parent, teacher etc.</li><li>• Make sure you GAP the task first (Genre? Audience? Purpose?)</li><li>• If you do not match your style to the task you will lose lots of marks!</li><li>• Vary your sentence openings</li><li>• Use a wide range of different punctuation</li><li>• Use interesting and ambitious vocabulary</li><li>• Don't forget to structure and add fluency to your writing by using connectives/discourse markers</li></ul>
---	--	-----------	---

# Mathematics

## Year 10 PPE Revision List: Mathematics (Foundation)

	Foundation	Chapter
Number	Use place value when calculating with decimals; Order positive and negative integers and decimals using equal, not equal and inequality symbols; Round to a number of decimal places or significant figures; Add and subtract positive and negative integers and decimals; Multiply and divide positive and negative integers and decimals; Use BIDMAS in multi-stage calculations;	1
Number	Convert between terminating decimals and their corresponding fractions; Compare decimals and fractions using inequality symbols; Find fractions and percentages of amounts; Add and subtract simple fractions and mixed numbers; Multiply and divide simple fractions and mixed numbers; Convert between fractions, decimals and percentages;	5
Number	Round numbers and measures to an appropriate degree of accuracy; Use approximation to make estimates; Check calculations using approximation and estimation; Use standard units of length, mass, volume, capacity, time and area.	9 (9.1, 9.2)
Number	Use mathematical language to describe factors, multiples and primes; Use Venn diagrams or factor trees to systematically list the prime factors of a number; Use prime factor decomposition to calculate the HCF and LCM of two or more numbers; Write the HCF and LCM using product notation; Calculate positive integer powers and their roots; Recognise powers of 2, 3, 4 and 5.	13
Geometry	Describe and apply the properties of angles at a point, on a line and at intersecting and parallel lines; Derive and use the sum of angles in a triangle; Derive and apply the properties and definitions of special types of quadrilaterals; Solve geometrical problems on coordinate axes; Deduce and use the angle sum in any polygon and derive properties of regular polygons.	3
Geometry	Know and apply formulae to calculate the area of rectangles, triangles, parallelograms and trapezia; Find areas of compound shapes; Identify, describe and construct reflections, rotations, translations and enlargements.	7 (7.2, 7.3, 7.4)
Geometry	Calculate the volume and surface area of cuboids, and other prisms.	15 (15.2, 15.3 part)
Geometry	Use Pythagoras to find the hypotenuse or a shorter side of a triangle, and the distance between two points. Know the Pythagorean triples 3, 4, 5 and 5, 12, 13; use these or multiples of them to find a missing side in a right-angled triangle. Use trigonometry to find a missing side or angle in a right-angled triangle.	19 (19.1, 19.2, 19.3)
Algebra	Use algebraic notation; Substitute numbers into formulae and expressions; Use and understand the words expressions, equations, formulae, terms and factors; Collect like terms and simplify expressions involving sums, products and powers; Use the laws of indices; Multiply a single term over a bracket; Take out common factors in an expression;	2
Algebra	Substitute numerical values into formulae and expressions; Identify inequalities, equations, formulae and identities;	6 (6.1, 6.3)
Algebra	Derive and solve simple linear equations; Solve linear inequalities in one variable and represent the solution on a number line;	10 (10.1, 10.2, 10.5)
Algebra	Work with coordinates in all four quadrants; Plot straight-line graphs including diagonal, vertical and horizontal lines; Identify gradients and intercepts of straight lines graphically and algebraically; Use the form $y = mx + c$ to identify parallel lines; Use one point and the gradient of the line to find its equation; Use two points to find the equation of a line; Interpret the gradient of a straight line graph as a rate of	14

	change; Plot and interpret graphs involving distance, speed and acceleration;	
Algebra	Generate a sequence by following a pattern or using a given rule; find the nth term of a linear sequence; decide if a number is a term in a sequence.	21 (21.1, 21.2)
Ratio & Proportional Reasoning	Use fractions and percentages to describe a proportion; Use ratio notation and simplify ratios; Solve problems involving percentage increase or decrease; Calculate simple interest and VAT.	12
Ratio & Proportional Reasoning	Solve proportion problems involving recipes and best buy; solve problems involving direct and inverse proportion.	22 (22.2, 22.3)
Statistics	Identify when a sample may be biased; Be able to describe sampling methods; Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar-line charts and bar charts; Interpret and construct pie charts and know their appropriate use; Compare distributions using median, mean, mode and range and identify outliers;	4
Statistics	Calculate the mean and median for frequency tables and estimate the mean for grouped data; Find the median and modal class for grouped data; Draw scatter graphs and add a line of best fit where appropriate; use the line of best fit to predict results and understand when it is inappropriate to do this; identify correlation; Draw and interpret time series graphs	16
Probability	Use experimental data to estimate probabilities and expected frequencies; Calculate theoretical probabilities and expected frequencies using the idea of equally likely events; Compare theoretical probabilities with experimental probabilities; Recognise mutually exclusive events and exhaustive events and know that the probabilities of mutually exclusive exhaustive events sum to 1;	8
Probability	Understand set notation; Draw Venn diagrams and use them to find probabilities using them; Draw sample space diagrams and use them to find probabilities.	20 (20.1, 20.2)

## Year 10 PPE Revision List: Mathematics (Higher)

	Higher	Chapter
Number	Order positive and negative integers and decimals; Round numbers to a given number of decimal places or significant figures; Use mental and written methods to add, subtract, multiply and divide with positive and negative integers and decimals; Use BIDMAS to complete calculations in the correct order;	1
Number	Find fractions and percentages of amounts; Add, subtract, multiply and divide with fractions and mixed numbers; Convert between fractions, decimals (including recurring decimals) and percentages; Order fractions, decimals and percentages;	5
Number	Use approximate values obtained by rounding to estimate calculations; Use an estimate to check an answer obtained using a calculator; Use and convert between, standard units of length, mass, capacity and other measures including compound measures; Solve problems involving compound measure such as speed and density; Find upper and lower bounds on the value of a quantity that has been rounded; Find upper and lower bounds on expressions that involve quantities that have been rounded;	9
Number	Know and use the language of prime numbers, factors and multiples; Write a number as a product of its prime factors; Find the HCF and LCM of a pair of integers; Estimate the square or cube root of an integer; Find square and cube roots of numbers and apply the laws of indices; Use zero, negative and fractional indices; Simplify expressions involving surds including rationalising fractions;	13
Geometry	Use angle facts including at a point, on a line, at an intersection and for parallel lines; Use bearings to specify directions; Identify types of triangle and quadrilateral and use their properties; Identify congruent shapes and use congruence to prove geometric results; Calculate the properties of polygons including interior and exterior angles for regular polygons;	3

Geometry	Measure line segments and angles accurately; Use scale drawings and bearings; Calculate the areas of triangles, parallelograms, trapezia and composite shapes; Describe and transform shapes using reflections, rotations, translations (described as 2D vectors) and enlargements (including fractional and negative scale factors); Identify what changes and what is invariant under a combination of transformations;	7
Geometry	Find the area and circumference of a circle and composite shapes involving circles; Calculate arc lengths, angles and areas of sectors; Use standard ruler and compass constructions and solve problems involving loci;	11 (11.1, 11.2, 11.4)
Geometry	Draw and interpret plans and elevations of 3D shapes; Calculate the volume of cuboids and right prisms; Calculate the surface area and volume of spheres, pyramids, cones and composite shapes;	15
Geometry	Use Pythagoras to find the hypotenuse or a shorter side of a triangle, and the distance between two points. Know the Pythagorean triples 3, 4, 5 and 5, 12, 13; use these or multiples of them to find a missing side in a right-angled triangle. Use trigonometry to find a missing side or angle in a right-angled triangle.	19 (19.1, 19.2, 19.3, 19.4)
Algebra	Use algebraic notation and simplify expressions by collecting like terms; Substitute numbers into formulae and expressions; Use the laws of indices; Multiply a single term over a bracket; Take out common factors in an expression; Simplify algebraic fractions and carry out arithmetic operations with algebraic fractions;	2
Algebra	Substitute values into formulae and rearrange formulae to change their subject; Use the terms expression, equation, formula, identity, inequality, term and factor; Construct proofs of simple statements using algebra; Expand brackets to get a quadratic expression and factorise quadratics into brackets	6 (6.1, 6.3, 6.4)
Algebra	Solve linear equations including when the unknown appears on both sides; Solve quadratic equations using factorisation, completing the square and the quadratic formula; Solve a pair of linear or linear plus quadratic simultaneous equations; Solve inequalities and display your solution on a number line or graph	10 (10.1, 10.2, 10.3, 10.5)
Algebra	Find and interpret the gradient and y-intercept of a line and relate these to the equation of the line in the form $y=mx + c$ ; Identify parallel and perpendicular lines using their equations; Draw linear, quadratic, cubic and reciprocal graphs; Solve related equations using the graphs; Identify roots, intercepts and turning points of quadratic curves using graphical and algebraic methods; Use graphs to solve problems involving distance, speed and acceleration; Draw graphs of circles.	14 and 18.1, 18.5
Ratio & Proportional Reasoning	Find fractions and percentages of amounts and express one number as a fraction or percentage of another; Divide a quantity in a given ratio and reduce a ratio to its simplest form; Use scale factors, scale diagrams and maps; Solve problems involving percentage change including finding the original amount after a percentage change;	12
Ratio & Proportional Reasoning	Use compound measures speed, density and pressure; find amounts after repeated percentage changes; find compound interest; solve growth and decay problems	22 (22.1, 22.2, 22.5)
Statistics	Construct and interpret frequency tables, bar charts, pie charts, and stem-and-leaf diagrams; Calculate the mean, median and mode of a data set;;	4
Statistics	Draw frequency polygons; Calculate the mean and median for frequency tables and estimate the mean for grouped data; Find the median and modal class for grouped data; Use averages and measures of spread to compare data sets; Draw scatter graphs and add a line of best fit where appropriate; use the line of best fit to predict results and understand when it is inappropriate to do this; identify correlation; Draw and interpret time series graphs; use trends on a time series to predict	16 (16.2, 16.4, 16.5)
Probability	Use experimental data to estimate probabilities and expected frequencies; Use tables to represent the outcomes of probability experiments; Calculate theoretical probabilities and expected frequencies using the idea of equally likely events; Recognise mutually exclusive events and exhaustive events and know that the probabilities of mutually exclusive exhaustive events sum to 1; Compare theoretical probabilities with experimental probabilities;	8
Probability	Draw tree diagrams for independent and dependent events and use them to find probabilities; Understand set notation; Draw Venn diagrams and use them to find probabilities using them	20

# Philosophy of Religion – Religions revision

<b>Christianity: Key beliefs</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support?	Exam question linked to the topic?
The nature of God : God as omnipotent, loving and just, and the problem of evil and suffering			
The oneness of God and the Trinity: Father, Son and Holy Spirit.			
Different Christian beliefs about creation including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3).			
Different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell.			

## Jesus Christ and salvation. Beliefs and teachings about:

The incarnation and Jesus as the Son of God			
The crucifixion, resurrection and ascension			
Sin , including original sin			
The means of salvation, including law, grace and Spirit			
The role of Christ in salvation including the idea of atonement.			
<b>Key Practices</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support?	Exam question linked to the topic?
Different forms of worship and their significance: liturgical, non-liturgical and informal, including the use of the Bible, private worship.			
Prayer and its significance, including the Lord's Prayer, set prayers and informal prayer.			

## The role and meaning of the sacraments:

The meaning of sacrament			
The sacrament of baptism and its significance for Christians; infant and believers' baptism; different beliefs about infant baptism			
The sacrament of Holy Communion/Eucharist and its significance for Christians, including different ways in which it is celebrated and different interpretations of its meaning.			
The role and importance of pilgrimage and celebrations including: two contrasting examples of Christian pilgrimage: Lourdes and Iona			
The celebrations of Christmas and Easter, including their importance for Christians in Great Britain today.			
<b>The role of the church in the local and worldwide community</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support?	Exam question linked to the topic?
The role of the Church in the local community, including food banks and street pastors.			
The place of mission, evangelism and Church growth.			



The importance of the worldwide Church including: working for reconciliation, how Christian churches respond to persecution			
The work of <b>one</b> of the following: Catholic Agency For Overseas Development (CAFOD), Christian Aid, Tearfund			
<b>Islam :</b>  <b>Key beliefs</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support?	Exam question linked to the topic?
The six articles of faith in Sunni Islam and five roots of Usul ad-Din in Shi'a Islam, including key similarities and differences.			
Tawhid (the Oneness of God), Qur'an Surah 112.			
The nature of God: omnipotence, beneficence, mercy, fairness and justice/Adalat in Shi'a Islam, including different ideas about God's relationship with the world: immanence and transcendence.			
Angels, their nature and role, including Jibril and Mika'il.			
Predestination and human freedom and its relationship to the Day of Judgement.			
Akhirah (life after death), human responsibility and accountability, resurrection, heaven and hell.			
<b>Authority</b> - Risalah (Prophethood) including the role and importance of Adam, Ibrahim and Muhammad.			

The holy books: Qur'an: revelation and authority the Torah, the Psalms, the Gospel, the Scrolls of Abraham and their authority.			
The imamate in Shi'a Islam: its role and significance			
<b>Worship</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support?	Exam question linked to the topic?
Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam (students should study the Five Pillars and jihad in both Sunni and Shi'a Islam and the additional duties of Shi'a Islam).			
Shahadah: declaration of faith and its place in Muslim practice.			
Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer: Jummah; key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer.			
<b>Duties and festivals</b>			
Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the			

exceptions and their reasons, and the Night of Power, Qur'an 96:1-5.			
Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam.			
Hajj: the role and significance of the pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance.			
Jihad: different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad.			
Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura			

<b>Theme A: Relationships and families</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support different opinions?	Exam question linked to the topic?
--	--	---	------------------------------------

They must be able to explain contrasting beliefs on the following three issues with reference to the main religious tradition in Britain (Christianity) and one or more other religious traditions:

Contraception.			
Sexual relationships before marriage.			
Homosexual relationships			

### Sex, marriage and divorce

Human sexuality including: heterosexual and homosexual relationships.			
Sexual relationships before and outside of marriage.			
Contraception and family planning.			
The nature and purpose of marriage.			
Same-sex marriage and cohabitation.			
•Divorce, including reasons for divorce, and remarrying.			
Ethical arguments related to divorce, including those based on the sanctity of marriage vows			

### Families and gender equality

The nature of families, including:			
the role of parents and children			
Extended families and the nuclear family.			
The purpose of families, including:			

Procreation			
stability and the protection of children			
Educating children in a faith.			
•Contemporary family issues including:			
same-sex parents			
polygamy.			
The roles of men and women.			
Gender equality.			
Gender prejudice and discrimination, including examples.			

<b>Theme B: Religion and life</b>	Checked information in revision book/textbook?	Do you have a quote/teaching to support different opinions?	Exam question linked to the topic?
-----------------------------------	--	---	------------------------------------

They must be able to explain contrasting beliefs on the following three issues with reference to the main religious tradition in Britain (Christianity) and one or more other religious traditions:

Abortion.			
Euthanasia.			
Animal experimentation			

The origins and value of the universe

The origins of the universe, including:			
religious teachings about the origins of the universe, and different interpretations of these			
the relationship between scientific views, such as the Big Bang theory, and religious views.			
The value of the world and the duty of human beings to protect it, including religious teaching about stewardship, dominion, responsibility, awe and wonder.			
The use and abuse of the environment, including the use of natural resources, pollution.			
The use and abuse of animals, including:			
animal experimentation			
the use of animals for food			
.			

## The origins and value of human life

The origins of life, including:			
religious teachings about the origins of human life, and different interpretations of these			
the relationship between scientific views, such as evolution, and religious views.			
The concepts of sanctity of life and the quality of life.			
Abortion, including situations when the mother's life is at risk.			
Ethical arguments related to abortion, including those based on the sanctity of life and quality of life			
Euthanasia.			
Beliefs about death and an afterlife, and their impact on beliefs about the value of human life.			

Theme E: Religion, crime and punishment	Checked information in revision book/textbook?	Do you have a quote/teaching to support different opinions?	Exam question linked to the topic?
They must be able to explain contrasting beliefs on the following three issues with reference to the main religious tradition in Britain (Christianity) and one or more other religious traditions:			
Corporal punishment.			
Death penalty.			
Forgiveness.			
<b>Religion, crime and the causes of crime</b>			
Good and evil intentions and actions, including whether it can ever be good to cause suffering.			
Reasons for crime, including:			
poverty and upbringing			
mental illness and addiction			
greed and hate			
opposition to an unjust law.			
Views about people who break the law for these reasons.			
Views about different types of crime, including hate crimes, theft and murder.			
<b>Religion and punishment</b>			
The aims of punishment, including:			
Retribution			
Deterrence			



reformation.			
The treatment of criminals, including:			
Prison			
corporal punishment			
community service.			
Forgiveness.			
The death penalty.			
Ethical arguments related to the death penalty, including those based on the principle of utility and sanctity of life.			

Theme F: Religion, human rights and social justice		Checked information in revision book/textbook?	Do you have a quote/teaching to support different opinions?	Exam question linked to the topic?
They must be able to explain contrasting beliefs on the following three issues with reference to the main religious tradition in Britain (Christianity) and one or more other religious traditions:				
Status of women in religion.				
The uses of wealth.				
Freedom of religious expression				

<b>Human rights</b>
---------------------

Prejudice and discrimination in religion and belief, including the status and treatment within religion of			
--	--	--	--

women and homosexuals.			
Issues of equality, freedom of religion and belief including freedom of religious expression.			
Human rights and the responsibilities that come with rights, including the responsibility to respect the rights of others.			
Social justice.			
Racial prejudice and discrimination.			
Ethical arguments related to racial discrimination (including positive discrimination), including those based on the ideals of equality and justice			
<b>Wealth and poverty</b>			

Wealth, including:			
the right attitude to wealth			
the uses of wealth.			
The responsibilities of wealth, including the duty to tackle poverty and its causes			
Exploitation of the poor including issues relating to:			
fair pay			
excessive interest on loans			
people-trafficking.			
The responsibilities of those living in poverty to help themselves overcome the difficulties they face.			
Charity, including issues related to giving money to the poor			

# Y10 Biology Summer Exam Revision list

## TRIPLES & COMBINED

### B1 Cell – Level Systems

#### Cell structures

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B1.1.1 Plant and animal cells	I can state the organelles (structures) present in a plant and animal cell.	<input type="checkbox"/>	I can compare the organelles present in plant and animal cells.	<input type="checkbox"/>	I can discuss the reasons for the presence or absence of organelles in different plant and animal cells.	<input type="checkbox"/>
	I can state the function of each of the main organelles present in a plant and animal cell.	<input type="checkbox"/>	I can explain the function of the organelles, relating the structure and molecules present to the function of the organelles.	<input type="checkbox"/>	I can explain the roles of the molecules or structures within the organelles, such as the receptors in the cell membrane.	<input type="checkbox"/>
	I can label the organelles in representational models of plant and animal cells.	<input type="checkbox"/>	I can explain how a model cell is similar to, and different from, a real cell.	<input type="checkbox"/>	I can discuss the benefits and drawbacks of using a representational model to help in explaining the structures and functions of cell organelles.	<input type="checkbox"/>
B1.1.2 Bacterial cells	I can name some examples of prokaryotes.	<input type="checkbox"/>	I can compare prokaryotic and eukaryotic cells.	<input type="checkbox"/>	I can discuss the reasons for the presence or absence of organelles in different prokaryotic cells.	<input type="checkbox"/>
	I can state the main organelles present in a prokaryotic cell.	<input type="checkbox"/>	I can explain the function of the organelles, relating the structure to the function of the organelles.	<input type="checkbox"/>	I can discuss how the organelles of the prokaryote can carry out all of the functions of the eukaryotic cell.	<input type="checkbox"/>
	I can use a method, with some help to obtain results, working safely.	<input type="checkbox"/>	I can use a method independently to obtain results, noting some major hazards.	<input type="checkbox"/>	I can use a method independently to obtain results, justifying the steps to minimise risks.	<input type="checkbox"/>
B1.1.3 Light microscopy	I can identify the components of the light microscope.	<input type="checkbox"/>	I can explain the role of each part of the microscope.	<input type="checkbox"/>	I can discuss why different lenses on the microscope are needed.	<input type="checkbox"/>
	I can describe how to use a microscope to observe cells.	<input type="checkbox"/>	I can explain why stains are used to highlight cell features.	<input type="checkbox"/>	I can discuss why different stains might be required when viewing different cells or tissues.	<input type="checkbox"/>
	I can use a microscope to observe and draw a cell.	<input type="checkbox"/>	I can draw an accurate representation of a cell and calculate the magnification used to make the drawing.	<input type="checkbox"/>	I can calculate specimen size, image size and magnification by substituting values into an equation, rearranging when necessary.	<input type="checkbox"/>

B1.1.4 Electron microscopy	I can describe simply how a transmission electron microscope (TEM) works.	<input type="checkbox"/>	I can explain how electron microscopy has increased understanding of subcellular structures.	<input type="checkbox"/>	I can discuss how useful the electron microscope has been in medicine and biology.	<input type="checkbox"/>
	I can state an advantage of using an electron microscope.	<input type="checkbox"/>	I can describe the advantages of using the electron microscope compared with the light microscope.	<input type="checkbox"/>	I can evaluate the relative advantages and disadvantages of using an electron microscope compared with a light microscope.	<input type="checkbox"/>
	I can state the resolution achieved by an electron microscope in SI units using the correct order of magnitude.	<input type="checkbox"/>	I can compare the increase in resolution, in standard form, of an electron microscope with that of a light microscope.	<input type="checkbox"/>	I can calculate how many times greater the resolution of an electron microscope is compared with a light microscope.	<input type="checkbox"/>

#### What happens in cells?

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B1.2.1 DNA	I can describe the structure of DNA.	<input type="checkbox"/>	I can describe the structure of the nucleotide as the building block of DNA.	<input type="checkbox"/>	I can explain what is meant by complementary base pairing.	<input type="checkbox"/>
	I can state the role of DNA.	<input type="checkbox"/>	I can describe the role of a gene.	<input type="checkbox"/>	I can explain the relationship between DNA, genes, and chromosomes.	<input type="checkbox"/>
	I can use the correct apparatus to follow a method with help.	<input type="checkbox"/>	I can use a method to carry out an experiment appropriately and independently, having due regard for the correct manipulation of apparatus.	<input type="checkbox"/>	I can use a method to carry out an experiment appropriately and independently, with due regard to the correct manipulation of apparatus and the accuracy of measurements.	<input type="checkbox"/>
B1.2.2 Bacterial cells			I can compare the difference in structure between mRNA and DNA.	<input type="checkbox"/>	I can distinguish between the roles of mRNA and DNA in the process of protein synthesis.	<input type="checkbox"/>
			I can describe the process of protein synthesis; to include transcription and translation.	<input type="checkbox"/>	I can explain how the base sequence in the DNA molecule determines the amino acid sequence in the protein.	<input type="checkbox"/>
			I can summarise and evaluate with accuracy and clear understanding.	<input type="checkbox"/>	I can summarise and critically evaluate with detailed and perceptive understanding.	<input type="checkbox"/>
B1.2.3 Enzymes	I can state what an enzyme is.	<input type="checkbox"/>	I can describe the structure of an enzyme.	<input type="checkbox"/>	I can explain what is meant by enzyme specificity.	<input type="checkbox"/>
	I can describe simply how an enzyme works.	<input type="checkbox"/>	I can explain how an enzyme works.	<input type="checkbox"/>	I can explain in detail how an enzyme interacts with its substrate to catalyse a reaction.	<input type="checkbox"/>
	I can describe how an enzyme works by communicating simply and with some clarity for the audience.	<input type="checkbox"/>	I can illustrate how an enzyme works by communicating effectively, sustaining the audience's interest.	<input type="checkbox"/>	I can interpret how an enzyme works by communicating, with impact and influence.	<input type="checkbox"/>

B1.2.4 Enzyme reactions	I can state the factors that affect enzyme-controlled reactions.	<input type="checkbox"/>	I can describe the effect of a factor on the rate of an enzyme-controlled reaction.	<input type="checkbox"/>	I can explain how different factors affect the rate of an enzyme-controlled reaction.	<input type="checkbox"/>
	I can state what is meant by denaturation.	<input type="checkbox"/>	I can describe what happens when an enzyme is denatured.	<input type="checkbox"/>	I can explain how denaturation affects the rate of an enzyme-controlled reaction.	<input type="checkbox"/>
	I can record observations from an experimental procedure, using a range of apparatus.	<input type="checkbox"/>	I can record measurements from an experimental procedure, and plot a simple graph having been given the axes.	<input type="checkbox"/>	I can record accurate measurements from an experimental procedure, plotting an accurate rate graph.	<input type="checkbox"/>

## Respiration

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B1.3.1 Carbohydrates, proteins, and lipids	I can describe the components of carbohydrates, proteins, and lipids.	<input type="checkbox"/>	I can explain how carbohydrates, proteins, and lipids are synthesised and broken down.	<input type="checkbox"/>	I can distinguish between monomers and polymers in biological molecules.	<input type="checkbox"/>
	I can state what is meant by metabolic rate.	<input type="checkbox"/>	I can describe the relationship between metabolic rate, activity levels, and food intake.	<input type="checkbox"/>	I can explain that metabolic reactions can be divided into different groups.	<input type="checkbox"/>
	I can use scientific vocabulary, terminology, and definitions, with limited accuracy of spelling, punctuation, and grammar.	<input type="checkbox"/>	I can use scientific vocabulary, terminology, and definitions accurately with occasional errors in spelling, punctuation, and grammar.	<input type="checkbox"/>	I can use scientific vocabulary, terminology, and definitions accurately and error-free in spelling, punctuation, and grammar.	<input type="checkbox"/>
B1.3.2 Aerobic respiration	I can state the word equation for respiration.	<input type="checkbox"/>	I can state the chemical equation for respiration.	<input type="checkbox"/>	I can discuss the use by the body of the energy transferred in respiration.	<input type="checkbox"/>
	I can state that respiration transfers energy.	<input type="checkbox"/>	I can describe the process of aerobic respiration as an exothermic reaction.	<input type="checkbox"/>	I can explain how ATP is produced during aerobic respiration.	<input type="checkbox"/>
	I can plot a graph of data from experiments.	<input type="checkbox"/>	I can plot an appropriate line graph of two variables from experimental data.	<input type="checkbox"/>	I can plot an appropriate accurate line graph of two variables from experimental data, and interpret the data to draw conclusions.	<input type="checkbox"/>
B1.3.3 Anaerobic respiration	I can state the word equation for anaerobic respiration.	<input type="checkbox"/>	I can state a chemical equation for anaerobic respiration.	<input type="checkbox"/>	I can compare the processes of aerobic and anaerobic respiration in terms of energy yield.	<input type="checkbox"/>
	I can state that there are different types of anaerobic respiration in different organisms.	<input type="checkbox"/>	I can describe the different processes of anaerobic respiration and where they occur.	<input type="checkbox"/>	I can explain the consequences of anaerobic respiration in muscles in terms of oxygen debt.	<input type="checkbox"/>
	I can use the correct apparatus to follow a method with help.	<input type="checkbox"/>	I can use a method to carry out an experiment appropriately and independently, having due regard to the correct manipulation of apparatus.	<input type="checkbox"/>	I can use a method to carry out an experiment appropriately and independently, having due regard to the correct manipulation of apparatus and the accuracy of measurements.	<input type="checkbox"/>

## Photosynthesis

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B1.4.1 Photosynthesis	I can state the word equation for photosynthesis.	<input type="checkbox"/>	I can state the chemical equation for photosynthesis.	<input type="checkbox"/>	I can discuss the fate of the products of photosynthesis.	<input type="checkbox"/>
	I can state that sunlight energy is required for the process of photosynthesis.	<input type="checkbox"/>	I can describe the process of photosynthesis as an endothermic reaction.	<input type="checkbox"/>	I can explain that photosynthesis is a two stage process, and where those stages occur.	<input type="checkbox"/>
	I can state basic facts (about photosynthesis), communicating simply and with some clarity.	<input type="checkbox"/>	I can illustrate the process of photosynthesis using labelled diagrams that communicate effectively, making coherent statements.	<input type="checkbox"/>	I can annotate diagrams to explain the process of photosynthesis in detail, communicating coherently and with impact.	<input type="checkbox"/>
B1.4.2 Photosynthesis experiments	I can describe how to test a leaf for the presence of starch.	<input type="checkbox"/>	I can explain how to use the starch test to investigate the factors that affect whether or not photosynthesis occurs.	<input type="checkbox"/>	I can justify the use of each of the steps in the test for starch.	<input type="checkbox"/>
	I can use the correct apparatus to follow a method with help, having due regard for some health and safety considerations.	<input type="checkbox"/>	I can follow a method to carry out an experiment appropriately and independently, having due regard for most health and safety considerations.	<input type="checkbox"/>	I can follow a method to carry out an experiment appropriately and independently, having due regard for the correct manipulation of apparatus and all health and safety considerations.	<input type="checkbox"/>
	I can state a simple conclusion from a scientific observation.	<input type="checkbox"/>	I can interpret experimental observations, drawing a valid conclusion.	<input type="checkbox"/>	I can interpret fully all experimental observations, to provide a detailed conclusion.	<input type="checkbox"/>
B1.4.3 Factors affecting	I can state the factors affecting the rate of photosynthesis.	<input type="checkbox"/>	I can describe the effect of light intensity, carbon dioxide concentration, and temperature on the rate of photosynthesis.	<input type="checkbox"/>	I can explain the effect of light intensity, carbon dioxide concentration, and temperature on the rate of photosynthesis.	<input type="checkbox"/>
	I can record data from an experiment in the table provided.	<input type="checkbox"/>	I can calculate a class average (mean) from data collected in an experiment.	<input type="checkbox"/>	I can calculate the mean rate of photosynthesis from data collected in an experiment, and plot a rate graph as a line graph.	<input type="checkbox"/>

photosynthesis	I can state any difficulties encountered carrying out this method.	<input type="checkbox"/>	I can suggest how any difficulties have affected the repeatability of the results.	<input type="checkbox"/>	I can evaluate the method, discussing the impact upon the validity of the results, and suggest improvements.	<input type="checkbox"/>
B1.4.4 Interaction of limiting factors ④			I can explain the concept of a limiting factor.	<input type="checkbox"/>	I can explain how factors interact to limit the rate of photosynthesis.	<input type="checkbox"/>
			I can calculate relative light intensity using the inverse square law.	<input type="checkbox"/>	I can explain the relationship between light intensity and distance from a lamp.	<input type="checkbox"/>
			I can describe how light intensity, carbon dioxide concentration, and temperature can be controlled.	<input type="checkbox"/>	I can discuss how controlling the factors that affect the rate of photosynthesis can affect the yield of a plant crop.	<input type="checkbox"/>

## B2 – Scaling up

### Supplying the cell

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B2.1.1 Diffusion	I can state some examples of diffusion.	<input type="checkbox"/>	I can describe the process of diffusion.	<input type="checkbox"/>	I can explain fully at a molecular level the process of diffusion.	<input type="checkbox"/>
	I can state factors that affect the rate of diffusion.	<input type="checkbox"/>	I can describe the effect of factors on the rate of diffusion.	<input type="checkbox"/>	I can explain the reasons for the effects of factors on the rate of diffusion.	<input type="checkbox"/>
	I can describe by communicating simply, producing text with basic structure and familiar vocabulary.	<input type="checkbox"/>	I can describe by communicating effectively, producing coherent text, which is well structured, and use some appropriate scientific vocabulary.	<input type="checkbox"/>	I can describe by communicating with impact, producing effectively-structured texts, using a full range of precise scientific vocabulary.	<input type="checkbox"/>
B2.1.2 Osmosis	I can state that osmosis is the movement of water molecules into or out of cells.	<input type="checkbox"/>	I can describe the process of osmosis.	<input type="checkbox"/>	I can explain the effect of osmosis on potato cells.	<input type="checkbox"/>
	I can state that osmosis is a type of diffusion.	<input type="checkbox"/>	I can explain why osmosis occurs.	<input type="checkbox"/>	I can explain, in terms of water potential, why osmosis occurs.	<input type="checkbox"/>
B2.1.3 Active transport	I can state some examples of active transport.	<input type="checkbox"/>	I can describe examples of active transport in plants and animals.	<input type="checkbox"/>	I can explain the importance of active transport in plants and animals.	<input type="checkbox"/>
	I can state the differences between active transport and diffusion.	<input type="checkbox"/>	I can describe how molecules move by active transport.	<input type="checkbox"/>	I can explain how carrier proteins function in the process of active transport.	<input type="checkbox"/>
	I can record measurements from an experimental method, and calculate a change in mass.	<input type="checkbox"/>	I can record measurements from an experimental method, and calculate a percentage change in mass.	<input type="checkbox"/>	I can record measurements from an experimental method, calculate a percentage change in mass, and plot the data to determine the concentration that is equal to the cell.	<input type="checkbox"/>
B2.1.4 Mitosis	I can state the stages of the cell cycle.	<input type="checkbox"/>	I can describe the key features of each stage of the cell cycle.	<input type="checkbox"/>	I can explain the process of DNA replication in the cell cycle.	<input type="checkbox"/>
	I can state the purpose of mitosis.	<input type="checkbox"/>	I can describe the process of mitosis.	<input type="checkbox"/>	I can explain the process of mitosis in terms of the movement of chromosomes.	<input type="checkbox"/>
	I can use a model to illustrate the major steps in the cell cycle.	<input type="checkbox"/>	I can use a representational model to describe the key events during the cell cycle.	<input type="checkbox"/>	I can use a representational model to develop scientific explanations of all of the events during the cell cycle.	<input type="checkbox"/>
B2.1.5 Cell differentiation	I can state what is meant by cell differentiation.	<input type="checkbox"/>	I can explain why cells become differentiated.	<input type="checkbox"/>	I can explain the need for cellular differentiation in multicellular organisms.	<input type="checkbox"/>
	I can state some examples of specialised cells.	<input type="checkbox"/>	I can describe the adaptations of a range of specialised cells.	<input type="checkbox"/>	I can explain the link between the adaptation of each specialised cell and its function.	<input type="checkbox"/>
	I can use text to be able to describe features with some accuracy.	<input type="checkbox"/>	I can summarise text, with accuracy, to show clear understanding of cell features.	<input type="checkbox"/>	I can summarise text showing detailed and perceptive understanding of cell features and functions.	<input type="checkbox"/>
B2.1.6 Stem cells	I can state where stem cells are found.	<input type="checkbox"/>	I can describe the difference between a stem cell and a differentiated cell.	<input type="checkbox"/>	I can explain the difference between embryonic and adult stem cells.	<input type="checkbox"/>
	I can state some uses of stem cells.	<input type="checkbox"/>	I can describe the function of stem cells.	<input type="checkbox"/>	I can evaluate the advantages and disadvantages of using stem cells in medicine.	<input type="checkbox"/>
	I can use general references to scientific texts to support my comments and opinions.	<input type="checkbox"/>	I can use appropriate references to scientific texts to support their understanding and opinions.	<input type="checkbox"/>	I can justify my understanding and opinions with illuminating use of references to scientific texts.	<input type="checkbox"/>



## The challenges of size

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B2.2.1 Exchange and transport	I can state some examples of exchange surfaces and transport systems.	<input type="checkbox"/>	I can describe the features of an efficient exchange surface.	<input type="checkbox"/>	I can explain why multicellular organisms require adapted exchange surfaces.	<input type="checkbox"/>
	I can calculate the surface area or volume of an object.	<input type="checkbox"/>	I can calculate the surface area: volume ratio.	<input type="checkbox"/>	I can compare the relationship between the surface area: volume ratio and the size of an organism/cell.	<input type="checkbox"/>
	I can describe simple observations made during an experiment.	<input type="checkbox"/>	I can interpret observations and data made during an experiment.	<input type="checkbox"/>	I can interpret observations and data obtained during an experiment, identifying patterns and drawing conclusions.	<input type="checkbox"/>
B2.2.2 Circulatory system	I can state the function of the circulatory system.	<input type="checkbox"/>	I can describe the structure of the double circulatory system.	<input type="checkbox"/>	I can explain the need for a double circulatory system in mammals.	<input type="checkbox"/>
	I can the different types of blood vessels found in a circulatory system.	<input type="checkbox"/>	I can describe the structure of the blood vessels.	<input type="checkbox"/>	I can explain the link between the structure and function of the different types of blood vessels.	<input type="checkbox"/>
	I can use familiar vocabulary to some effect to describe the circulatory system.	<input type="checkbox"/>	I can use vocabulary appropriate to purpose and effect to describe the structure of the circulatory system.	<input type="checkbox"/>	I can use a wide range of well-selected and precise vocabulary to enhance impact when explaining the functioning of the circulatory system.	<input type="checkbox"/>
B2.2.3 Heart and blood	I can identify the components of the blood.	<input type="checkbox"/>	I can describe the functions of the main components of the blood.	<input type="checkbox"/>	I can explain the adaptations of the red blood cell that enable it to carry out its function.	<input type="checkbox"/>
	I can identify the main structures in the heart.	<input type="checkbox"/>	I can describe the flow of blood through the heart.	<input type="checkbox"/>	I can explain how the thickness of the chambers of the heart are related to their function.	<input type="checkbox"/>
	I can state the names of the major parts of the heart and blood.	<input type="checkbox"/>	I can use the correct names of the parts of the heart and blood when describing their function.	<input type="checkbox"/>	I can use an appropriate range of scientific vocabulary and terminology when explaining the functions of the blood and heart.	<input type="checkbox"/>

B2.2.4 Plant transport systems	I can state the function of xylem.	<input type="checkbox"/>	I can describe the function and distribution of xylem tissue.	<input type="checkbox"/>	I can explain how the structure and distribution of xylem tissue is related to its function.	<input type="checkbox"/>
	I can state the function of phloem.	<input type="checkbox"/>	I can describe the function and distribution of phloem tissue.	<input type="checkbox"/>	I can explain how the structure and distribution of phloem tissue is related to its function.	<input type="checkbox"/>
	I can label diagrams using simple sentence structure and familiar vocabulary.	<input type="checkbox"/>	I can annotate diagrams using varied sentence types and appropriate scientific vocabulary.	<input type="checkbox"/>	I can annotate diagrams using a wide range of sentence types, including precise and appropriate scientific vocabulary.	<input type="checkbox"/>
B2.2.5 Transpiration stream	I can state what is meant by transpiration.	<input type="checkbox"/>	I can describe the transpiration stream.	<input type="checkbox"/>	I can explain the mechanisms by which water is moved through the plant.	<input type="checkbox"/>
	I can state the location of most stomata in a plant.	<input type="checkbox"/>	I can describe the structure of a stoma.	<input type="checkbox"/>	I can explain how stomata control water loss from leaves.	<input type="checkbox"/>
	I can describe the observations made during each experiment.	<input type="checkbox"/>	I can explain the observations made during each experiment.	<input type="checkbox"/>	I can relate the findings of both experiments to one another, to explain how water is lost from the plant.	<input type="checkbox"/>
B2.2.6 Factors affecting transpiration	I can state the factors that affect the rate of transpiration.	<input type="checkbox"/>	I can describe the relationship between a given factor and the rate of transpiration.	<input type="checkbox"/>	I can explain how environmental factors affect the rate of transpiration.	<input type="checkbox"/>
	I can state what a potometer measures.	<input type="checkbox"/>	I can describe how to use a potometer.	<input type="checkbox"/>	I can explain how to calculate the rate of transpiration using a potometer.	<input type="checkbox"/>
	I can state a limitation found with the method.	<input type="checkbox"/>	I can discuss a range of limitations with this method, which might affect the results.	<input type="checkbox"/>	I can discuss a range of limitations with this method, which might affect the results, suggesting a series of improvements.	<input type="checkbox"/>

## B3 – Organ Level Systems

### The nervous system

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B3.1.1 Nervous system	I can state the function of the nervous system.	<input type="checkbox"/>	I can describe the pathway taken by an impulse in a nervous reaction.	<input type="checkbox"/>	I can explain how the nervous system produces a coordinated response.	<input type="checkbox"/>
	I can state the difference between a nerve and a neurone.	<input type="checkbox"/>	I can describe the different types of neurone in the nervous system.	<input type="checkbox"/>	I can explain the difference in function of sensory and motor neurones.	<input type="checkbox"/>
	I can state that the reaction time measured is controlled by the nervous system.	<input type="checkbox"/>	I can identify reasons for reaction times measured, by describing the pathway taken by the impulse.	<input type="checkbox"/>	I can explain the reasons for different reaction times between dominant and non-dominant hands.	<input type="checkbox"/>
B3.1.2 Reflexes	I can state what is meant by a reflex action.	<input type="checkbox"/>	I can describe the pathway of the impulse in the reflex arc during a reflex action.	<input type="checkbox"/>	I can explain how a specific example of a reflex action occurs.	<input type="checkbox"/>
	I can list examples of reflex actions.	<input type="checkbox"/>	I can describe the difference between a reflex action and a voluntary action.	<input type="checkbox"/>	I can explain why a reflex action is faster than a voluntary action.	<input type="checkbox"/>
	I can plan a simple experiment to make a basic observation of the iris reflex.	<input type="checkbox"/>	I can plan a series of simple experiments to make observations of the iris reflex.	<input type="checkbox"/>	I can plan a systematic series of experiments to fully investigate the iris reflex.	<input type="checkbox"/>

## Triple content

B3.1.3 The eye	I can identify the main structures of the eye.	<input type="checkbox"/>	I can describe the function of each of the main structures in the eye.	<input type="checkbox"/>	I can explain how the eye focuses light on the retina.	<input type="checkbox"/>
	I can name some defects of vision.	<input type="checkbox"/>	I can describe some defects of vision.	<input type="checkbox"/>	I can explain how common defects of vision can be corrected.	<input type="checkbox"/>
	I can use a model to observe how light travels through the eye.	<input type="checkbox"/>	I can use a model to describe how the structures of the eye focus light on the retina.	<input type="checkbox"/>	I can use a model to explain how changes in the lens shape would result in accommodation of light rays.	<input type="checkbox"/>

B3.1.4 The brain	I can name the main structures in the brain.	<input type="checkbox"/>	I can describe the location of the main structures of the brain.	<input type="checkbox"/>	I can describe the function of the main structures in the brain.	<input type="checkbox"/>
			I can describe some of the different techniques used to investigate brain function. <b>H</b>	<input type="checkbox"/>	I can explain why it is difficult to investigate brain function. <b>H</b>	<input type="checkbox"/>
			I can describe a range of practical and ethical concerns in scientific research. <b>H</b>	<input type="checkbox"/>	I can justify decisions about the ethics of scientific research methods. <b>H</b>	<input type="checkbox"/>
B3.1.5 Nervous system damage <b>H</b>			I can describe examples of damage to nervous tissue.	<input type="checkbox"/>	I can explain how damage to nervous has an effect on the functioning of the body.	<input type="checkbox"/>
			I can describe some methods used to treat damage to the nervous system.	<input type="checkbox"/>	I can explain the difficulties in treating the nervous system.	<input type="checkbox"/>
			I can describe some of the personal implications to the patient of treatments for damage to the nervous system.	<input type="checkbox"/>	I can evaluate the personal implications to the patient of treatments for damage to the nervous system.	<input type="checkbox"/>

## The endocrine system

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B3.2.1 Hormones	I can name examples of endocrine glands and the hormones they release.	<input type="checkbox"/>	I can describe how a hormone reaches its target organ.	<input type="checkbox"/>	I can explain how a hormone acts as a chemical messenger.	<input type="checkbox"/>
	I can state the function of a hormone.	<input type="checkbox"/>	I can describe the specific roles of some hormones in the body.	<input type="checkbox"/>	I can explain how named hormones bring about homeostatic regulation in the body.	<input type="checkbox"/>
	I can use simple sentence types and familiar vocabulary, limited to scientific names, when producing texts.	<input type="checkbox"/>	I can use a variety of sentence types and vocabulary appropriate to purpose when describing the actions of hormones.	<input type="checkbox"/>	I can use a wide range of well-selected sentence types and precise vocabulary when explaining the action of hormones.	<input type="checkbox"/>
B3.2.2 Negative feedback <b>H</b>			I can describe the role of thyroxine and adrenaline in the body.	<input type="checkbox"/>	I can explain how the roles of thyroxine and adrenaline are brought about by a number of responses in the body.	<input type="checkbox"/>
			I can describe how negative feedback occurs.	<input type="checkbox"/>	I can explain the purpose of negative feedback.	<input type="checkbox"/>
			I can use a model to describe how negative feedback occurs.	<input type="checkbox"/>	I can use a model to explain how negative feedback brings about control.	<input type="checkbox"/>
B3.2.3 The menstrual cycle	I can state the hormones involved in the menstrual cycle.	<input type="checkbox"/>	I can describe how the levels of the hormones change during the menstrual cycle.	<input type="checkbox"/>	I can explain how some hormones control the level of production of other hormones during the menstrual cycle. <b>H</b>	<input type="checkbox"/>
	I can describe the main stages of the menstrual cycle.	<input type="checkbox"/>	I can describe how hormones cause the changes that occur at the different stages of the menstrual cycle.	<input type="checkbox"/>	I can explain how hormones interact to control the menstrual cycle. <b>H</b>	<input type="checkbox"/>
	I can state simple factual statements based on data and observations from texts.	<input type="checkbox"/>	I can use data and observations from texts to describe processes in detail.	<input type="checkbox"/>	I can interpret data and observations from texts to explain how changes in the menstrual cycle are related to patterns in the hormone levels.	<input type="checkbox"/>

B3.2.4 Controlling reproduction	I can state some examples of contraception.	<input type="checkbox"/>	I can describe how the different methods of contraception work.	<input type="checkbox"/>	I can evaluate different methods of contraception.	<input type="checkbox"/>
	I can name the different types of hormone-based contraception.	<input type="checkbox"/>	I can explain how hormones are used in contraception.	<input type="checkbox"/>	I can evaluate hormonal contraception methods compared with non-hormonal contraception.	<input type="checkbox"/>
	I can state that applications of science have helped humans control their reproduction.	<input type="checkbox"/>	I can discuss how knowledge of reproduction allowed scientists to develop applications to control reproduction.	<input type="checkbox"/>	I can explain the need for scientists to evaluate reproductive applications of science, in order to inform the public.	<input type="checkbox"/>
B3.2.5 Using hormones to treat infertility <b>H</b>			I can describe some causes of infertility.	<input type="checkbox"/>	I can discuss issues surrounding fertility treatment.	<input type="checkbox"/>
			I can describe the process of in vitro fertilisation (IVF).	<input type="checkbox"/>	I can explain how hormones can be used to treat infertility.	<input type="checkbox"/>
			I can use evidence to support or reject the use of IVF.	<input type="checkbox"/>	I can justify decisions about the suitability of IVF based on an evaluation of the evidence and arguments about the technique.	<input type="checkbox"/>

### Triple content

B3.2.6 Plant hormones	I can name the process by which plants respond to light.	<input type="checkbox"/>	I can describe the process of phototropism.	<input type="checkbox"/>	I can explain the role of auxins on phototropism.	<input type="checkbox"/>
	I can name the process by which plants respond to gravity.	<input type="checkbox"/>	I can describe the process of gravitropism.	<input type="checkbox"/>	I can explain the role of auxins in gravitropism.	<input type="checkbox"/>
	I can use scientific facts to develop a method, given a hypothesis.	<input type="checkbox"/>	I can use scientific theories to develop a hypothesis.	<input type="checkbox"/>	I can use scientific theories to develop a hypothesis that clearly links a dependent and independent variable.	<input type="checkbox"/>

B3.2.7 Uses of plant hormones	I can give an example of a plant hormone.	<input type="checkbox"/>	I can describe some of the effects of plant hormones on the plant.	<input type="checkbox"/>	I can explain how plant hormones have their effects on plants.	<input type="checkbox"/>
	I can state one advantage of the use of plant hormones.	<input type="checkbox"/>	I can describe commercial uses of plant hormones. <b>H</b>	<input type="checkbox"/>	I can explain the commercial advantages of using plant hormones. <b>H</b>	<input type="checkbox"/>
			I can describe some impacts on society of the use of plant hormones. <b>H</b>	<input type="checkbox"/>	I can evaluate the economic and other benefits to society of the commercial use of plant hormones. <b>H</b>	<input type="checkbox"/>



## Triple content

### Maintaining internal environments

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
B3.3.1 Controlling body temperature	I can state some of the changes that occur in the skin at high or low temperatures.	<input type="checkbox"/>	I can describe the function of the skin in controlling body temperature.	<input type="checkbox"/>	I can explain in detail the body's responses to temperature change. <sup>H</sup>	<input type="checkbox"/>
	I can state what is meant by homeostasis.	<input type="checkbox"/>	I can describe how overheating or cooling can affect the body. <sup>H</sup>	<input type="checkbox"/>	I can explain the importance of maintaining a constant internal environment.	<input type="checkbox"/>
	I can make and record measurements from an experiment.	<input type="checkbox"/>	I can make and record accurate measurements in a clear table.	<input type="checkbox"/>	I can make and record accurate, repeated measurements systematically in a well-organised table with clear headings and units.	<input type="checkbox"/>
B3.3.2 Controlling blood sugar	I can name a hormone involved in blood sugar control.	<input type="checkbox"/>	I can explain the role of insulin in maintaining blood glucose levels.	<input type="checkbox"/>	I can explain the role of glucagon and insulin in maintaining blood glucose levels. <sup>H</sup>	<input type="checkbox"/>
	I can state why blood sugar levels change throughout the day.	<input type="checkbox"/>	I can describe the main differences between type 1 and type 2 diabetes.	<input type="checkbox"/>	I can explain the differences between the treatments for type 1 and type 2 diabetes.	<input type="checkbox"/>
	I can state basic observations about blood sugar levels obtained in an experiment.	<input type="checkbox"/>	I can interpret data, obtained in an experiment, to describe the changes in blood glucose levels.	<input type="checkbox"/>	I can interpret data, obtained in an experiment, to explain the changes in blood glucose levels and compare with other data.	<input type="checkbox"/>
B3.3.3 Maintaining water balance	I can state the ways in which water enters and leaves the body.	<input type="checkbox"/>	I can describe how the water level in the blood is maintained by the production of urine.	<input type="checkbox"/>	I can explain how the body maintains water balance by varying urine concentration.	<input type="checkbox"/>
	I can state that water moves into and out of a cell by osmosis.	<input type="checkbox"/>	I can describe the effect of osmosis on cells.	<input type="checkbox"/>	I can explain the movement of water into and out of cells down a water potential gradient.	<input type="checkbox"/>
	I can use a model to make observations of osmosis in cells.	<input type="checkbox"/>	I can use a model to describe the effect of osmosis on cells.	<input type="checkbox"/>	I can use models to explain the significance of water potential gradients in scientific applications.	<input type="checkbox"/>

B3.3.4 Inside the kidney	I can identify the structures present in the kidney.	<input type="checkbox"/>	I can describe the function of the different regions of a nephron.	<input type="checkbox"/>	I can explain ultrafiltration and selective reabsorption in the nephron.	<input type="checkbox"/>
	I can state that the concentration of urine can change.	<input type="checkbox"/>	I can describe how the kidney can produce varying amounts of urine depending upon the body's level of hydration. <sup>H</sup>	<input type="checkbox"/>	I can explain how ADH determines the amount of water that is reabsorbed. <sup>H</sup>	<input type="checkbox"/>
	I can use some scientific vocabulary when discussing the structure or function of the kidney.	<input type="checkbox"/>	I can use appropriate scientific vocabulary when describing the function of the nephron.	<input type="checkbox"/>	I can use a full range of scientific vocabulary and terminology to explain the functioning of the nephron.	<input type="checkbox"/>
B3.3.5 Responding to osmotic challenges <sup>H</sup>			I can describe the effects of over- and under-hydration on the body.	<input type="checkbox"/>	I can explain how the body responds to dehydration and over-hydration.	<input type="checkbox"/>
			I can describe the constituents of different types of sports drinks.	<input type="checkbox"/>	I can evaluate the effectiveness of sports drinks.	<input type="checkbox"/>
			I can communicate findings from experiments and provide a basic conclusion.	<input type="checkbox"/>	I can communicate findings and give a reasoned conclusion based on scientific understanding.	<input type="checkbox"/>

For this section combined need to learn the following:

- Be able to explain the importance of maintain a constant internal environment in response to internal and external change
- All of the controlling blood sugar section, to include a comparison of type I and type II diabetes
- Be able to describe the gross structure of the kidney and the structure of the kidney tubule.

Triples need to learn all of the statements in the grid.

# Chemistry – Triples & Combined

## C1 Particles

### The particle model

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C1.1.1 Introducing particles	I can draw diagrams to show the arrangements of particles in the three states of matter.	<input type="checkbox"/>	I can describe the movement and arrangement of particles in the three states of matter, and give examples of three	<input type="checkbox"/>	I can compare the movement and arrangement of particles in the three states of matter.	<input type="checkbox"/>
	I can describe typical physical properties of a substance in a given state.	<input type="checkbox"/>	I can compare the physical properties of a substance in its three states.	<input type="checkbox"/>	I can use the particle model to explain the differences in physical properties of a substance in its three states.	<input type="checkbox"/>
	I can state whether a given particle model is in two or three dimensions.	<input type="checkbox"/>	I can compare the features of 2D and 3D models to represent particles.	<input type="checkbox"/>	I can evaluate the advantages and disadvantages of given 2D and 3D models to represent particles.	<input type="checkbox"/>
C1.1.2 Chemical and physical changes	I can make observations, and give examples of physical and chemical changes.	<input type="checkbox"/>	I can state whether an observed change is physical or chemical.	<input type="checkbox"/>	I can justify classifying a given observed change as physical or chemical.	<input type="checkbox"/>
	I can state the definition of a physical change and a chemical changes.	<input type="checkbox"/>	I can compare the features of physical and chemical changes.	<input type="checkbox"/>	I can explain the differences between physical and chemical changes using the particle model.	<input type="checkbox"/>
	I can compare reactants and products in a chemical reaction using particle diagrams or physical models.	<input type="checkbox"/>	I can deduce whether a given change is physical or chemical by interpreting particle diagrams of reactants and products.	<input type="checkbox"/>	I can draw particle diagrams of reactants and products to model a chemical reaction.	<input type="checkbox"/>
C1.1.3 Limitations of the particle model	I can name the type of force that acts between particles.	<input type="checkbox"/>	I can describe how the strength of the forces between particles changes with distance.	<input type="checkbox"/>	I can explain why the strength of the forces between particles affects the properties of a substance.	<input type="checkbox"/>
	I can compare the relative distances between particles in the three states of matter.	<input type="checkbox"/>	I can state typical distances between particles in the gas state.	<input type="checkbox"/>	I can calculate the ratio distance to diameter, the distance between particles in a gas state, and the sizes of objects in scale models.	<input type="checkbox"/>
	I can describe one way in which the particle model is unlike the situation it represents.	<input type="checkbox"/>	I can describe three limitations of the particle model.	<input type="checkbox"/>	I can use mathematical ideas to explain some limitations of the particle model.	<input type="checkbox"/>

### Atomic structure

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C1.2.1 Atomic structure	I can list the subatomic particles in an atom.	<input type="checkbox"/>	I can describe the subatomic particles in an atom.	<input type="checkbox"/>	I can explain evidence for the structure of the atom.	<input type="checkbox"/>
	I can qualitatively describe: the relative sizes of an atom, chemical bonds, and simple molecules.	<input type="checkbox"/>	I can use standard form to describe the sizes of atoms, chemical bonds, and molecules.	<input type="checkbox"/>	I can explain why a relative scale is used to compare subatomic particles.	<input type="checkbox"/>
	I can state the size of a typical atom.	<input type="checkbox"/>	I can use data to calculate the sizes, masses, and charges of subatomic particles.	<input type="checkbox"/>	I can use data to calculate the relative sizes, masses, and charges of subatomic particles.	<input type="checkbox"/>
C1.2.2 Isotopes	I can state definitions of the terms ion, atomic number, mass number, and isotope.	<input type="checkbox"/>	I can use an example to describe the similarities and differences between isotopes in terms of subatomic particles.	<input type="checkbox"/>	I can explain why isotopes of the same element may have different physical properties but identical chemical properties.	<input type="checkbox"/>
	I can describe how an atom becomes an ion.	<input type="checkbox"/>	I can use standard notation to represent an ion.	<input type="checkbox"/>	I can use and interpret standard notation to represent atoms, ions, and isotopes.	<input type="checkbox"/>
	I can state the number of protons, neutrons, and electrons from given values of atomic number and mass number.	<input type="checkbox"/>	I can state the numbers of protons, neutrons, and electrons in an atom when a Periodic Table is supplied.	<input type="checkbox"/>	I can state the number of protons, neutrons, and electrons for an ion when a Periodic Table is supplied.	<input type="checkbox"/>
C1.2.3 Developing the atomic model	I can recall the main features of the plum-pudding model and the Bohr model.	<input type="checkbox"/>	I can describe the development of the atomic model.	<input type="checkbox"/>	I can explain why the atomic model has changed over time.	<input type="checkbox"/>
	I can state the contribution Dalton, Thomson, Rutherford, Bohr, Geiger, and Marsden made to the atomic model.	<input type="checkbox"/>	I can explain the contribution of Dalton, Thomson, Rutherford, Bohr, Geiger, and Marsden to the development of the atomic model.	<input type="checkbox"/>	I can justify amendments to the model of the atom.	<input type="checkbox"/>
	I can state what an atom is.	<input type="checkbox"/>				

## C2 Elements, compounds and mixtures

### Purity and separating mixtures

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C2.1.1 Relative formula mass	I can state definitions of relative atomic mass, relative molecular mass, and relative formula mass.	<input type="checkbox"/>	I can use data from the Periodic Table to compare the relative atomic masses of different elements.	<input type="checkbox"/>	I can explain why relative formula mass is a useful measurement.	<input type="checkbox"/>
	I can use the Periodic Table to find the chemical symbol for an element.	<input type="checkbox"/>	I can interpret simple formulae to list the number of each type of atom present.	<input type="checkbox"/>	I can interpret diagrams of molecular compounds to write chemical formulae.	<input type="checkbox"/>
	I can use the Periodic Table to give the relative atomic mass of an element.	<input type="checkbox"/>	I can calculate the relative formula mass or relative molecular mass of a simple substance when the relative atomic mass and formula are given.	<input type="checkbox"/>	I can calculate the relative formula mass or relative molecular mass of substances from diagrams or formulae (including those with brackets).	<input type="checkbox"/>
C2.1.2 Empirical formula	I can state a definition of empirical formula.	<input type="checkbox"/>	I can use an example to explain how a molecular formula and an empirical formula can be the same.	<input type="checkbox"/>	I can explain why ionic compounds are always referred to by their empirical formulae.	<input type="checkbox"/>
	I can calculate the empirical formula for a simple covalent compound when the molecular formula is given.	<input type="checkbox"/>	I can calculate the empirical formula for a compound from a diagram.	<input type="checkbox"/>	I can calculate an empirical formula from a molecular formula that contains brackets.	<input type="checkbox"/>
	I can use a balanced symbol equation to calculate the relative formula mass or relative molecular mass when the relative atomic masses are given.	<input type="checkbox"/>	I can explain when the term relative molecular mass can be used.	<input type="checkbox"/>	I can explain how the sum of the $M_r$ values of the reactants must equal the sum of the $M_r$ values of the products in a balanced symbol equation.	<input type="checkbox"/>
C2.1.3 Pure and impure substances	I can state definitions of the terms pure and mixture.	<input type="checkbox"/>	I can explain the different meanings of pure in everyday and scientific language.	<input type="checkbox"/>	I can explain why a mixture is often more useful than a pure substance.	<input type="checkbox"/>
	I can give an example of a pure substance and a mixture.	<input type="checkbox"/>	I can identify a substance as either pure or a mixture.	<input type="checkbox"/>	I can explain the effect on melting point of adding different substances to a pure substance.	<input type="checkbox"/>
	I can safely determine the melting point of a substance.	<input type="checkbox"/>	I can identify a substance from melting point data.	<input type="checkbox"/>	I can evaluate the purity of a sample from its melting point data.	<input type="checkbox"/>

C2.1.4 Filtration and crystallisation	I can safely separate a mixture to collect an insoluble substance from a liquid or solution.	<input type="checkbox"/>	I can describe the process of filtering.	<input type="checkbox"/>	I can explain how filtration separates an insoluble solid from a liquid or solution.	<input type="checkbox"/>
	I can safely separate a solution to collect the solute.	<input type="checkbox"/>	I can describe the process of crystallisation.	<input type="checkbox"/>	I can explain how crystallisation separates the components of a solution.	<input type="checkbox"/>
	I can identify the solute, solvent, residue, and filtrate in named solutions or suspensions that have been separated.	<input type="checkbox"/>	I can suggest and describe a suitable technique to separate a named solution or suspension.	<input type="checkbox"/>	I can evaluate different techniques for folding filter paper.	<input type="checkbox"/>
C2.1.5 Distillation	I can list and recognise the key equipment used in a simple distillation.	<input type="checkbox"/>	I can describe the process of simple distillation.	<input type="checkbox"/>	I can explain how simple distillation separates a solution.	<input type="checkbox"/>
	I can safely use distillation to separate two miscible liquids.	<input type="checkbox"/>	I can describe the process of fractional distillation.	<input type="checkbox"/>	I can explain how fractional distillation separates a mixture of liquids.	<input type="checkbox"/>
	I can state the types of mixtures that can be separated by distillation.	<input type="checkbox"/>	I can suggest and describe a suitable technique to separate a named solution.	<input type="checkbox"/>	I can predict and justify the value shown on a thermometer in a distillation, given the mixture and relevant data.	<input type="checkbox"/>
C2.1.6 Chromatography	I can state definitions for the stationary and mobile phases in chromatography.	<input type="checkbox"/>	I can describe how to complete paper chromatography.	<input type="checkbox"/>	I can explain how separation occurs in a chromatography experiment.	<input type="checkbox"/>
	I can safely complete a paper chromatogram.	<input type="checkbox"/>	I can describe how to complete thin-layer chromatography.	<input type="checkbox"/>	I can explain how chromatograms for the same substances can be different when phases are changed.	<input type="checkbox"/>
	I can recall the formula for the $R_f$ value.	<input type="checkbox"/>	I can calculate $R_f$ values given a chromatogram.	<input type="checkbox"/>	I can interpret a chromatogram.	<input type="checkbox"/>
C2.1.7 Purification and checking purity	I can describe one purification technique to separate a simple mixture.	<input type="checkbox"/>	I can suggest a multistep separation technique for a mixture.	<input type="checkbox"/>	I can explain how a multistep method can be used to separate a given mixture.	<input type="checkbox"/>
	I can describe the processes of paper, thin-layer, and gas chromatography.	<input type="checkbox"/>	I can explain the processes of paper, thin-layer, and gas chromatography.	<input type="checkbox"/>	I can evaluate the different types of chromatography.	<input type="checkbox"/>

	I can use a chromatogram to classify a substance as pure or a mixture.	<input type="checkbox"/>	I can explain how a chromatogram can be used to identify a pure substance or a mixture.	<input type="checkbox"/>	I can justify the use of different purification techniques in different circumstances.	<input type="checkbox"/>
--	--	--------------------------	---	--------------------------	--	--------------------------

## Bonding

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C2.2.1 Metals and non-metals	I can list the physical properties of metals and non-metals.	<input type="checkbox"/>	I can describe the differences between the chemical properties of metals and non-metals.	<input type="checkbox"/>	I can predict the physical and chemical properties of an element based on its position in the Periodic Table.	<input type="checkbox"/>
	I can state where metals and non-metals are found in the Periodic Table.	<input type="checkbox"/>	I can describe an experiment to determine whether an element is a metal or a non-metal.	<input type="checkbox"/>	I can evaluate an experiment designed to classify an element as a metal or a non-metal.	<input type="checkbox"/>
	I can use the Periodic Table to classify an element as a metal or a non-metal.	<input type="checkbox"/>	I can identify patterns in the Periodic Table for the physical properties of elements.	<input type="checkbox"/>	I can identify and justify anomalous elements in the Periodic Table.	<input type="checkbox"/>
C2.2.2 Electronic structures	I can state definitions of a group and a period in the Periodic Table.	<input type="checkbox"/>	I can identify an element given the group and period number, and vice versa.	<input type="checkbox"/>	I can determine the electronic structure of each of the first 20 elements given group number and period number.	<input type="checkbox"/>
	I can state the maximum number of electrons in each of the first three shells.	<input type="checkbox"/>	I can use simplified electronic structure notation to draw the electronic structure of the first 20 elements in the Periodic Table.	<input type="checkbox"/>	I can interpret simplified electronic notation for the first 20 elements to determine group number, period number, and element.	<input type="checkbox"/>
	I can draw the electronic structure of the first 20 elements given the number of electrons.	<input type="checkbox"/>	I can draw the electronic structure of the first 20 elements using the Periodic Table to determine their number of electrons.	<input type="checkbox"/>	I can justify the study of the electronic structures of only the first 20 elements.	<input type="checkbox"/>
C2.2.3 Forming ions	I can state the definition of the term ion.	<input type="checkbox"/>	I can use electron diagrams to explain how ions are formed.	<input type="checkbox"/>	I can explain the charge on a given ion in terms of subatomic particles and electron transfer.	<input type="checkbox"/>
	I can recognise an ion from its symbol.	<input type="checkbox"/>	I can explain whether a given electron diagram represents an atom or an ion.	<input type="checkbox"/>	I can explain how atoms and ions of different elements can have the same electronic structure.	<input type="checkbox"/>
	I can draw or state the electronic structure of an ion given its charge and the electronic structure of the neutral atom.	<input type="checkbox"/>	I can draw the electronic structure of an ion given its charge and the number of electrons in the neutral atom.	<input type="checkbox"/>	I can predict the electronic structure of an ion given its position in the Periodic Table.	<input type="checkbox"/>

C2.2.4 Ionic compounds	I can state that ionic compounds tend to form between a metal and a non-metal.	<input type="checkbox"/>	I can explain the formation of ionic bonds in terms of electron transfer.	<input type="checkbox"/>	I can justify the formation of ionic bonds in terms of the stability of the atoms and ions involved.	<input type="checkbox"/>
	I can draw dot-and-cross diagrams to represent simple binary ionic compounds in which one electron per atom is transferred.	<input type="checkbox"/>	I can draw dot-and-cross diagrams to represent ionic compounds in which more than one electron per atom is transferred.	<input type="checkbox"/>	I can justify how a space-filling model for a given compound arises from its dot-and-cross diagram.	<input type="checkbox"/>
	I can describe the structure and bonding in an ionic compound.	<input type="checkbox"/>	I can explain how a given model represents an ionically bonded compound.	<input type="checkbox"/>	I can evaluate different models to represent ionic compounds.	<input type="checkbox"/>
C2.2.5 Simple molecules	I can state that covalent compounds form between non-metal atoms.	<input type="checkbox"/>	I can describe the formation of covalent bonds in terms of electron sharing.	<input type="checkbox"/>	I can explain how covalent bonds form between non-metal atoms.	<input type="checkbox"/>
	I can recognise covalent bonding and identify substances as covalently bonded.	<input type="checkbox"/>	I can describe structure and bonding in simple molecular substances.	<input type="checkbox"/>	I can evaluate different models to represent covalent compounds.	<input type="checkbox"/>
	I can draw dot-and-cross diagrams of simple covalent substances, limited to the first 20 elements and single bonds.	<input type="checkbox"/>	I can draw displayed formulae or dot-and-cross diagrams of covalent compounds, limited to the first 20 elements with single and/or double bonds.	<input type="checkbox"/>	I can suggest the displayed formula, space-filling, or dot-and-cross diagrams for covalent compounds, including those with multiple bonds.	<input type="checkbox"/>
C2.2.6 Giant covalent structures	I can state that covalent compounds form between non-metal atoms.	<input type="checkbox"/>	I can describe the formation of covalent bonds in terms of electron sharing.	<input type="checkbox"/>	I can use examples to explain how covalent bonds hold together a giant covalent structure.	<input type="checkbox"/>
	I can state examples of substances with giant covalent structures.	<input type="checkbox"/>	I can describe the structure and bonding in giant covalent structures.	<input type="checkbox"/>	I can evaluate different models to represent covalent compounds.	<input type="checkbox"/>
	I can draw a 3D representation of a giant covalent structure.	<input type="checkbox"/>	I can determine the empirical formula of a substance with a giant covalent structure.	<input type="checkbox"/>	I can justify the use of empirical formulae to describe substances that have giant covalent structures.	<input type="checkbox"/>



C2.2.7 Polymer molecules	I can state definitions of the terms monomer and polymer and give examples of each.	<input type="checkbox"/>	I can describe the formation of a polymer.	<input type="checkbox"/>	I can explain how monomers join together to form an addition polymer.	<input type="checkbox"/>
	I can describe the difference between the properties of thermosoftening and thermosetting polymers.	<input type="checkbox"/>	I can describe an experiment to classify a polymer as thermosoftening or thermosetting.	<input type="checkbox"/>	I can explain how the structures of thermosoftening and thermosetting polymers affect their properties.	<input type="checkbox"/>
	I can identify a monomer and polymer in a model.	<input type="checkbox"/>	I can explain a model to represent a polymer.	<input type="checkbox"/>	I can evaluate different models to represent polymers.	<input type="checkbox"/>
C2.2.8 Structure of metals	I can list examples of substances with metallic bonds.	<input type="checkbox"/>	I can describe the formation of metallic bonds.	<input type="checkbox"/>	I can explain how monomers join together to form an addition polymer.	<input type="checkbox"/>
	I can describe the lattice structure of a metallic crystal.	<input type="checkbox"/>	I can use a model to explain the lattice structure of a metallic crystal.	<input type="checkbox"/>	I can explain how the structures of thermosoftening and thermosetting polymers affect their properties.	<input type="checkbox"/>
	I can recognise a model of a metallic lattice.	<input type="checkbox"/>	I can compare metallic bonds with covalent and ionic bonds.	<input type="checkbox"/>	I can evaluate different models to represent polymers.	<input type="checkbox"/>
C2.2.9 Developing the Periodic Table	I can describe how the elements are listed in the Periodic Table.	<input type="checkbox"/>	I can explain how Mendeleev organised the elements in the Periodic Table.	<input type="checkbox"/>	I can explain why the modern Periodic Table is not the same as Mendeleev's Periodic Table.	<input type="checkbox"/>
	I can use the Periodic Table to determine the symbol, atomic number, and relative atomic mass of an element.	<input type="checkbox"/>	I can explain why Mendeleev's Periodic Table was not adopted straight away.	<input type="checkbox"/>	I can evaluate the Periodic Table as a method of displaying information about the elements.	<input type="checkbox"/>

C2.2.10 Atomic structure and the Periodic Table	I can state the number of electrons in the outer electron shells for the elements in Groups 1 and 8.	<input type="checkbox"/>	I can use the Periodic Table to suggest the electronic structure for the first 20 elements.	<input type="checkbox"/>	I can use the Periodic Table to suggest the number of outer-shell electrons and the number of electron shells for an element.	<input type="checkbox"/>
	I can describe the trend in the reactions of the Group 1 elements with water.	<input type="checkbox"/>	I can predict and explain the trend in reactivity of elements in Groups 2 and 6.	<input type="checkbox"/>	I can explain, in terms of electronic structure, why noble gases are described as inert.	<input type="checkbox"/>
	I can describe observations from displacement reactions.	<input type="checkbox"/>	I can use the Periodic Table to make predictions about the chemical reactions of elements with oxygen.	<input type="checkbox"/>	I can evaluate the versatility of the Periodic Table as new elements are discovered.	<input type="checkbox"/>

#### Properties of materials

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C2.3.1 Carbon	I can describe the structure and bonding in graphite and diamond.	<input type="checkbox"/>	I can explain how carbon can form different families of compounds.	<input type="checkbox"/>	I can explain the uses of graphite and diamond in terms of their properties.	<input type="checkbox"/>
	I can list the properties of graphite and diamond.	<input type="checkbox"/>	I can explain the properties of graphite and diamond in terms of structure and bonding.	<input type="checkbox"/>	I can predict the properties of carbon allotropes, given information about their structure and bonding.	<input type="checkbox"/>
	I can name examples of carbon allotropes.	<input type="checkbox"/>	I can explain the term allotrope using carbon to illustrate.	<input type="checkbox"/>	I can predict the properties or structure of Group 4 elements.	<input type="checkbox"/>
C2.3.2 Changing state	I can describe changes of state in terms of bonds and forces of attraction.	<input type="checkbox"/>	I can explain changes of state in terms of bonds and interactions between particles.	<input type="checkbox"/>	I can use an example to explain sublimation.	<input type="checkbox"/>
	I can state what is meant by melting point and boiling point.	<input type="checkbox"/>	I can use melting and boiling point data to determine the state of a substance at a given temperature.	<input type="checkbox"/>	I can use melting and boiling point data to suggest the type of substance and/ or type of bonds present in a sample.	<input type="checkbox"/>
	I can explain why the boiling point of a substance is always higher than its melting point.	<input type="checkbox"/>	I can use melting and boiling point data to interpret the relative strengths of forces of attraction.	<input type="checkbox"/>	I can explain how to use melting and boiling point data to interpret the relative strengths of forces of attraction.	<input type="checkbox"/>
C2.3.3 Bulk properties of materials	I can state a definition of the term bulk properties.	<input type="checkbox"/>	I can explain that individual atoms do not exhibit the bulk properties of a material.	<input type="checkbox"/>	I can justify the choice of a material for a function based on its bulk properties.	<input type="checkbox"/>
	I can list the main bulk properties of ionic compounds, simple molecules, giant covalent structures, polymers and metals.	<input type="checkbox"/>	I can explain how structure and bonding cause the bulk properties of a material.	<input type="checkbox"/>	I can predict the bulk properties of a material given information about its structure and bonding.	<input type="checkbox"/>
	I can recognise models of ionic compounds, simple molecules, giant covalent structures, polymers and metals.	<input type="checkbox"/>	I can use models of ionic compounds, simple molecules, giant covalent structures, polymers and metals to explain bulk properties.	<input type="checkbox"/>	I can evaluate models of ionic compounds, simple molecules, giant covalent structures, polymers and metals used to explain bulk properties.	<input type="checkbox"/>

## Nanoparticles -TRIPLES ONLY

C2.3.4 Nanoparticles	I can state the relative size of nanoparticles and use this to classify substances.	<input type="checkbox"/>	I can describe how the properties of nanoparticles relate to their uses.	<input type="checkbox"/>	I can use standard form where appropriate, to describe the size of nanoparticles.	<input type="checkbox"/>
	I can calculate the surface area of a cube given the formula.	<input type="checkbox"/>	I can describe and explain how the surface-area-to-volume ratio affects properties.	<input type="checkbox"/>	I can calculate the surface-area-to-volume ratio of a cube.	<input type="checkbox"/>
	I can list some examples of the use of nanotechnology.	<input type="checkbox"/>	I can list the advantages and disadvantages of nanotechnology.	<input type="checkbox"/>	I can evaluate the use of nanotechnology.	<input type="checkbox"/>

## C3 Chemical Reactions

### Introducing chemical reactions

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C3.1.1 Formulae of elements and molecules	I can name the elements in a familiar simple covalent substance, given the formula.	<input type="checkbox"/>	I can state the number of atoms of each element in an unfamiliar simple covalent substance, given the formula.	<input type="checkbox"/>	I can explain why metal elements are described using empirical formula and noble gases using just the element symbol.	<input type="checkbox"/>
	I can use the Periodic Table to find symbols for elements.	<input type="checkbox"/>	I can write the molecular formula of a compound that exists as simple covalent molecules, given the name or the number of atoms of each element present.	<input type="checkbox"/>	I can write the molecular formula for a simple covalent compound, given the structural formula.	<input type="checkbox"/>
C3.1.2 Formulae of ionic compounds	I can state the charges on ions in Groups 1, 2, 6 (IUPAC 16), and 7 (IUPAC 17).	<input type="checkbox"/>	I can determine the number and type of elements in unfamiliar ionic substances, given the formulae.	<input type="checkbox"/>	I can explain how a compound can contain both covalent and ionic bonds.	<input type="checkbox"/>
	I can state the ions in familiar ionic substances, given the formulae.	<input type="checkbox"/>	I can write the formula of ionic compounds containing one metal and one non-metal, given the name.	<input type="checkbox"/>	I can write the formulae of ionic compounds that include compound ions.	<input type="checkbox"/>
	I can state that transition metals can make more than one type of ion.	<input type="checkbox"/>	I can write the formula of a named ion, including using the Roman numeral convention.	<input type="checkbox"/>	I can name ionic compounds that contain transition metals using the Roman numeral convention.	<input type="checkbox"/>
C3.1.3 Conservation of mass	I can state the law of conservation of mass.	<input type="checkbox"/>	I can use the particle model to explain the law of conservation of mass.	<input type="checkbox"/>	I can explain why, in some chemical reactions performed in the laboratory, there appears to be a change in total mass.	<input type="checkbox"/>
	I can predict the total mass of the products or reactants in a closed chemical system, given the total mass of the reactants or products.	<input type="checkbox"/>	I can predict the total mass of the products or reactants in a non-enclosed chemical system, given the total mass of the reactants or products.	<input type="checkbox"/>	I can calculate the mass of one substance from a balanced symbol equation, given the masses of the other substances.	<input type="checkbox"/>

C3.1.4 Chemical equations	I can write a word equation, given a statement naming the reactants and products.	<input type="checkbox"/>	I can explain why a symbol equation must be balanced.	<input type="checkbox"/>	I can write a balanced symbol equation, given a statement describing a familiar chemical reaction.	<input type="checkbox"/>
	I can identify the reactants and products in a word or symbol equation.	<input type="checkbox"/>	I can balance symbol equations with formulae that do not contain brackets.	<input type="checkbox"/>	I can balance symbol equations with formulae that include brackets.	<input type="checkbox"/>
	I can recognise state symbols for solids, liquids, and gases.	<input type="checkbox"/>	I can add state symbols to balanced symbol equations and explain what they mean.	<input type="checkbox"/>	I can evaluate the use of the terms equations, balanced symbol equations, and state symbols to describe a chemical system.	<input type="checkbox"/>
C3.1.5 Half equations and ionic equations H			I can determine the ions in a compound, including those containing compound ions.	<input type="checkbox"/>	I can write an ionic equation or half equations, given a description of a chemical reaction.	<input type="checkbox"/>
			I can balance an ionic equation or half equation and explain what the equation shows.	<input type="checkbox"/>	I can explain what spectator ions are, and determine them in a given example.	<input type="checkbox"/>
			I can explain why precipitation reactions can be described by ionic equations.	<input type="checkbox"/>		
C3.1.6 The mole H			I can calculate the number of particles in a sample of a substance, given the amount in moles.	<input type="checkbox"/>	I can explain the relationship between the mole and the Avogadro constant.	<input type="checkbox"/>
			I can state the formula that links the amount in moles, mass, and molar mass.	<input type="checkbox"/>	I can calculate the mass or amount in moles of a given sample of a substance.	<input type="checkbox"/>
			I can use the Periodic Table to determine the molar mass of monatomic and polyatomic elements and compounds.	<input type="checkbox"/>	I can use standard form in calculations involving amounts of substance.	<input type="checkbox"/>


C3.1.7 Mole calculations H			I can define a limiting reactant.	<input type="checkbox"/>	I can explain the effect of a limiting amount of a reactant.	<input type="checkbox"/>
			I can identify a limiting reactant, given the mole values for a reaction.	<input type="checkbox"/>	I can use mass data to determine the stoichiometry and generate a balanced symbol equation for a reaction.	<input type="checkbox"/>
			I can calculate the number of moles of a substance used or produced in a chemical reaction, given the amounts of all of the other substances.	<input type="checkbox"/>	I can calculate the mass of a substance used or produced in a chemical reaction, given the mass of the limiting reactant.	<input type="checkbox"/>

### Energetics

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C3.2.1 Exothermic and endothermic reactions	I can state definitions of the terms exothermic and endothermic.	<input type="checkbox"/>	I can describe the observations that indicate whether a reaction is exothermic or endothermic.	<input type="checkbox"/>	I can draw a line graph to calculate the maximum temperature change during a reaction, determine when the reaction stopped, and predict the temperature at different times during the reaction.	<input type="checkbox"/>
	I can identify a reaction as exothermic or endothermic when the temperature change is given.	<input type="checkbox"/>	I can describe an experiment to determine if a reaction is exothermic or endothermic.	<input type="checkbox"/>	I can evaluate an experiment to classify a reaction as exothermic or endothermic.	<input type="checkbox"/>
	I can state an example of an exothermic and an endothermic reaction.	<input type="checkbox"/>	I can explain the use of endothermic and exothermic reactions for a stated function.	<input type="checkbox"/>	I can compare endothermic and exothermic reactions.	<input type="checkbox"/>
C3.2.2 Reaction profiles	I can state a definition of activation energy.	<input type="checkbox"/>	I can describe activation energy using a reaction profile.	<input type="checkbox"/>	I can explain, in terms of bonds, the need for activation energy.	<input type="checkbox"/>
	I can identify a reaction as exothermic or endothermic from the reaction profile.	<input type="checkbox"/>	I can sketch a general reaction profile for an exothermic and an endothermic reaction.	<input type="checkbox"/>	I can sketch a specific reaction profile for a given reaction.	<input type="checkbox"/>
	I can identify bond breaking as endothermic and bond making as exothermic.	<input type="checkbox"/>	I can explain why bond breaking is endothermic and bond making is exothermic.	<input type="checkbox"/>	I can use the particle model to model a chemical reaction in terms of bond breaking and bond making.	<input type="checkbox"/>
C3.2.3 Calculating energy changes H			I can define the term bond energy.	<input type="checkbox"/>	I can compare bond energies for different bonds, and suggest reasons for differences.	<input type="checkbox"/>
			I can calculate the number and type of bonds in a molecule, given the displayed formula.	<input type="checkbox"/>	I can draw displayed formulae of familiar covalent molecules.	<input type="checkbox"/>
			I can use bond energy data to calculate the energy change in a given reaction.	<input type="checkbox"/>	I can explain why the calculated energy change may not be the same as the actual value.	<input type="checkbox"/>

## Types of chemical reaction

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C3.3.1 Redox reactions	I can state definitions of reduction, oxidation, and redox.	<input type="checkbox"/>	I can explain reduction, oxidation, and redox in terms of electrons.	<input type="checkbox"/>	I can write balanced half equations to illustrate reduction and oxidation.	<input type="checkbox"/>
	I can state an example of a redox reaction.	<input type="checkbox"/>	I can balance half equations.	<input type="checkbox"/>	I can explain why oxidation or reduction does not happen in isolation.	<input type="checkbox"/>
	I can describe an oxidising agent and a reducing agent.	<input type="checkbox"/>	I can identify substances as oxidising agents or reducing agents, given the balanced symbol equation.	<input type="checkbox"/>	I can construct balanced symbol equations by combining half equations and adding spectator ions.	<input type="checkbox"/>
C3.3.2 The pH scale	I can state definitions of an acid and an alkali and give examples.	<input type="checkbox"/>	I can explain the terms acid and alkali in terms of ions.	<input type="checkbox"/>	I can use ionic equations to explain how acids produce hydrogen ions and alkalis produce hydroxide ions in solution.	<input type="checkbox"/>
	I can identify a solution as acidic or alkaline given its pH.	<input type="checkbox"/>	I can describe a method to use universal indicator or a pH probe to determine the pH of a solution.	<input type="checkbox"/>	I can evaluate the use of indicators or pH probes and dataloggers to determine the pH of a solution.	<input type="checkbox"/>
	I can safely use an indicator to classify a substance as an acid or an alkali.	<input type="checkbox"/>	I can explain the pH scale in terms of acidity and alkalinity.	<input type="checkbox"/>	I can explain the difference between an alkali and a base.	<input type="checkbox"/>
C3.3.3 Neutralisation	I can state a definition of neutralisation.	<input type="checkbox"/>	I can describe neutralisation in terms of reactants, products, and reacting ions.	<input type="checkbox"/>	I can write an ionic equation for the neutralisation of an alkali by an acid.	<input type="checkbox"/>
	I can describe some uses of neutralisation.	<input type="checkbox"/>	I can write a balanced symbol equation to describe a neutralisation reaction.	<input type="checkbox"/>	I can write balanced symbol equations with state symbols for unfamiliar neutralisation reactions.	<input type="checkbox"/>
	I can predict the name of a salt made from a named alkali and common strong acids.	<input type="checkbox"/>	I can state the formula of the salt made from a given alkali and strong acid.	<input type="checkbox"/>	I can use the particle model to explain how the products of neutralisation form.	<input type="checkbox"/>

C3.3.4 Reactions of acids	I can predict the names of the products of a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>	I can predict the observations that might be made during a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>	I can explain why the reaction between a metal or a metal carbonate and an acid is classified as a neutralisation reaction.	<input type="checkbox"/>
	I can write a word equation to model a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>	I can write a balanced symbol equation to model a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>	I can write a balanced symbol equation, including state symbols, to model a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>
	I can describe how to test and identify a gas made when a metal or a metal carbonate reacts with an acid.	<input type="checkbox"/>	I can describe how to make and collect a dry sample of a named salt from a reaction between a metal or a metal carbonate and an acid.	<input type="checkbox"/>	I can explain how the reactions of metals and metal carbonates with acids can be used to determine the reactivity of the metal.	<input type="checkbox"/>
C3.3.5 Hydrogen ions and pH 			I can describe what is meant by a strong acid and a weak acid.	<input type="checkbox"/>	I can explain the difference between a strong acid and a weak acid.	<input type="checkbox"/>
			I can describe how an acid can be dilute or concentrated.	<input type="checkbox"/>	I can explain the difference between a concentrated acid or alkali and a dilute acid or alkali.	<input type="checkbox"/>
			I can collect data to plot a pH curve.	<input type="checkbox"/>	I can interpret pH curves to determine the titre and the strength of reactants.	<input type="checkbox"/>



## Electrolysis

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C3.4.1 Electrolysis of molten salts	I can explain why solid compounds of a metal with a non-metal do not conduct electricity.	<input type="checkbox"/>	I can describe the components of an electrolysis circuit, and how to mobilise the ions in the electrolyte.	<input type="checkbox"/>	I can explain why electrolysis provides evidence for the existence of ions.	<input type="checkbox"/>
	I can state that electrolysis breaks ionic compounds down into their component elements.	<input type="checkbox"/>	I can describe the process of electrolysis.	<input type="checkbox"/>	I can explain the process of electrolysis in detail.	<input type="checkbox"/>
	I can predict the products of electrolysis.	<input type="checkbox"/>	I can predict the products at the anode and the cathode during the electrolysis of molten ionic compounds.	<input type="checkbox"/>	I can write half equations for the reactions that occur at the anode and the cathode, and explain in terms of electron transfer why these are redox reactions.	<input type="checkbox"/>
C3.4.2 Electrolysis of solutions	I can state that inert electrodes are made from unreactive metals or graphite.	<input type="checkbox"/>	I can explain why inert electrodes are used for the electrolysis of water (and aqueous solutions) and state the products of this reaction.	<input type="checkbox"/>	I can use half equations to explain the formation of the products at each electrode during the electrolysis of water.	<input type="checkbox"/>
	I can name some products of the electrolysis of solutions.	<input type="checkbox"/>	I can predict and describe the products at each electrode during the electrolysis of a solution.	<input type="checkbox"/>	I can predict and explain the products at each electrode during the electrolysis of a solution.	<input type="checkbox"/>
	I can set up an electrolysis circuit and collect/observe some products formed by the electrolysis of a solution.	<input type="checkbox"/>	I can identify products formed by the electrolysis of a solution.	<input type="checkbox"/>	I can collect and identify the products at each electrode during the electrolysis of a solution.	<input type="checkbox"/>
C3.4.3 Electroplating	I can state that electrolysis can be used to electroplate metals.	<input type="checkbox"/>	I can describe the process of electroplating.	<input type="checkbox"/>	I can write half equations to show what happens at the anode and the cathode during electroplating.	<input type="checkbox"/>
	I can describe some components of an electroplating circuit.	<input type="checkbox"/>	I can suggest suitable substances for the anode, cathode, and electrolyte when electroplating.	<input type="checkbox"/>	I can explain in detail the components of an electroplating circuit.	<input type="checkbox"/>

	I can explain that copper can be purified by electrolysis.	<input type="checkbox"/>	I can explain how electrolysis is used to purify copper.	<input type="checkbox"/>	I can write half equations to explain what happens at the anode and the cathode during the purification of copper using electrolysis.	<input type="checkbox"/>
--	--	--------------------------	--	--------------------------	---	--------------------------

# Physics – Core

Please remember that memorising and applying formulae in physics is extremely important.

All objectives highlighted in yellow contain a formula you must memorise in order to use it in your exam.

All objectives highlighted in pink contain a formula you are given in the exam but you must know how to use.

## P1 Matter

### Lesson 1

- describe how and why the atomic model has changed over time – to include Rutherford (alongside Geiger and Marsden) and Bohr models
- describe the atom as a positively charged nucleus surrounded by negatively charged electrons, with the nuclear radius much smaller than that of the atom and with almost all of the mass in the nucleus
- recall the typical size (order of magnitude) of atoms and small molecules – typically  $1 \times 10^{-10}\text{m}$

### Lesson 2

- define density
- recall and apply:  $\text{density (kg/m}^3\text{)} = \text{mass (kg)} / \text{volume (m}^3\text{)}$

### Lesson 3

- explain the differences in density between the different states of matter in terms of the arrangements of the atoms and molecules
- apply the relationship between density, mass and volume to changes where mass is conserved

### Lesson 4

- describe how mass is conserved when substances melt, freeze, evaporate, condense and sublime
- describe that these physical changes differ from chemical changes because the material recovers its original properties if the change is reversed

### Lesson 5

- describe how heating a system will change the energy stored within the system and raise its temperature or produce changes of state
- define the term specific heat capacity
- apply the relationship between change in internal energy of a material and its mass, specific heat capacity and temperature change to calculate the energy change involved
- apply:  $\text{change in thermal energy (J)} = \text{mass (kg)} \times \text{specific heat capacity (J/kg}^\circ\text{C)} \times \text{change in temperature (}^\circ\text{C)}$

### Lesson 6

- define the term specific heat capacity and distinguish between it and the term specific latent heat
- apply the relationship between change in internal energy of a material and its mass, specific heat capacity and temperature change to calculate the energy change involved
- apply the relationship between specific latent heat and mass to calculate the energy change involved in a change of state
- apply:  $\text{thermal energy for a change in state (J)} = \text{mass (kg)} \times \text{specific latent heat (J/kg)}$

### Lesson 7

- explain how the motion of the molecules in a gas is related both to its temperature and its pressure – application to closed systems only
- explain the relationship between the temperature of a gas and its pressure at constant volume

## TRIPLE SCIENCE ONLY

### Lesson 8

- recall that gases can be compressed or expanded by pressure changes and that the pressure produces a net force at right angles to any surface
- explain how increasing the volume in which a gas is contained, at constant temperature can lead to a decrease in pressure
- explain how doing work on a gas can increase its temperature e.g. a bicycle pump
- apply: for gases: pressure (Pa) x volume ( $\text{m}^3$ ) = constant (for a given mass of gas and at a constant temperature)

### Lesson 9

- describe a simple model of the Earth's atmosphere and of atmospheric pressure – an assumption of uniform density; knowledge of layers is not expected
- explain why atmospheric pressure varies with height above the surface of the planet

### Lesson 10

- describe the factors which influence floating and sinking
- explain why pressure in a liquid varies with depth and density and how this leads to an upwards force on a partially submerged object
- calculate the difference in pressure at different depths in a liquid (to include knowledge that  $g$  is the strength of the gravitational field and has a value of  $10 \text{ N/kg}$  near the Earth's surface)
- apply: pressure due to a column of liquid (Pa) = height of column (m) x density of liquid ( $\text{kg/m}^3$ ) x  $g$  ( $\text{N/kg}$ )

## P2 Forces (Part One)

### Lesson 1

- ▣ recall and apply: distance travelled (m) = speed (m/s) x time (s)
- ▣ describe how to measure distance and time in a range of scenarios
- ▣ describe how to measure distance and time and use these to calculate speed
- ▣ calculate average speed for non-uniform motion
- ▣ make calculations using ratios and proportional reasoning to convert units and to compute rates
- ▣ explain the vector- scalar distinction as it applies to displacement and distance, velocity and speed
- ▣ explain why an object moving in a circle with a constant speed has a changing velocity (qualitative only)

### Lesson 2

- ▣ relate changes and differences in motion to appropriate distance-time, and velocity-time graphs, and interpret lines, slopes and enclosed areas in such graphs
- ▣ explain the vector-scalar distinction as it applies to displacement and distance, velocity and speed

### Lesson 3

- ▣ recall and apply: acceleration (m/s<sup>2</sup>) = change in speed (m/s) / time (s)
- ▣ relate changes and differences in motion to appropriate distance-time, and velocity-time graphs, and interpret lines, slopes and enclosed areas in such graphs
- ▣ explain the vector- scalar distinction as it applies to displacement and distance, velocity and speed

### Lesson 4-5

- ▣ calculate average speed for non-uniform motion
- ▣ apply:  $(\text{final velocity (m/s)})^2 - (\text{initial velocity (m/s)})^2 = 2 \times \text{acceleration (m/s}^2) \times \text{distance (m)}$
- ▣ apply formulae relating distance, time and speed, for uniform motion, and for motion with uniform acceleration

### Lesson 6-7

- ▣ apply Newton's First Law to explain the motion of an object moving with uniform velocity and also an object where the speed and/or direction change
- ▣ describe examples of the forces acting on an isolated solid object or system
- ▣ describe, using free body diagrams, examples where two or more forces lead to a resultant force on an object (qualitative only)
- ▣ describe, using free body diagrams, examples of the special case where forces balance to produce a resultant force of zero

### Lesson 8

- ▣ recall and apply Newton's Third Law
- ▣ recall examples of ways in which objects interact
- ▣ describe how such examples involve interactions between pairs of objects which produce a force on each object
- ▣ represent such forces as vectors

### Lesson 9

- ▣ describe examples of the forces acting on an isolated solid object or system
- ▣ describe, using free body diagrams, examples where two or more forces lead to a resultant force on an object (qualitative only)
- ▣ use vector diagrams to illustrate resolution of forces, a net force, and equilibrium situations.
- ▣ describe, using free body diagrams, examples of the special case where forces balance to produce a resultant force of zero

### Lesson 10

- ▣ define momentum and describe examples of momentum in collisions
- ▣ recall and apply: momentum (kgm/s) = mass (kg) x velocity (m/s)

## P2 Forces (Part Two)

### Lesson 1-2

- recall and apply: force (N) = mass (kg) × acceleration (m/s<sup>2</sup>)
- apply Newton's Second Law in calculations relating forces, masses and accelerations.
- explain that inertia is a measure of how difficult it is to change the velocity of an object and that the mass is defined as the ratio of force over acceleration.
- apply formulae relating force, mass, velocity and acceleration to explain how the changes involved are inter-related.

### Lesson 3

- recall and apply: work done (J) = force (N) × distance (m) (along the line of action of the force)
- use the relationship between work done, force, and distance moved along the line of action of the force and describe the energy transfer involved
- calculate relevant values of stored energy and energy transfers; convert between newton-metres and joules

### Lesson 4

- recall and apply: gravity force (N) = mass (kg) × gravitational field strength, g (N/kg)
- recall and apply: (in a gravity field) potential energy (J) = mass (kg) × height (m) × gravitational field strength, g (N/kg)
- describe that all matter has a gravitational field that causes attraction, and the field strength is much greater for massive objects
- recall the acceleration in free fall (=10m/s<sup>2</sup>)
- define weight, describe how it is measured and describe the relationship between the weight of an object and the gravitational field strength (g) (and) has a value of 10N/kg at the Earth's surface

### Lesson 5

- recall and apply: kinetic energy (J) = 0.5 × mass (kg) × (speed (m/s))<sup>2</sup>
- calculate relevant values of stored energy and energy transfers; convert between newton-metres and joules

### Lesson 6

- recall and apply: power (W) = work done (J) / time (s)
- explain, with reference to examples, the definition of power as the rate at which energy is transferred

### Lesson 7-8

- explain that to stretch, bend or compress an object, more than one force has to be applied
- describe the difference between linear and non-linear relationships between force and extension

### Lesson 9

- describe the relationship between force and extension for a spring and other simple systems
- describe the difference between elastic and plastic deformation (distortions) caused by stretching forces
- recall and apply: force exerted by a spring (N) = extension (m) × spring constant (N/m)
- calculate a spring constant in linear cases

### Lesson 10

- apply: energy transferred in stretching (J) = 0.5 × spring constant (N/m) × (extension (m))<sup>2</sup>
- calculate the work done in stretching

# TRIPLE SCIENCE ONLY

## P2 Forces (Part Three)

### Lesson 1

- ▣ apply formulae relating force, mass, velocity and acceleration to explain how the changes involved are inter-related
- ▣ apply formulae relating force, mass and relevant physical constants, including gravitational field strength (g), to explore how changes in these are inter-related

### Lesson 2

- ▣ describe examples in which forces cause rotation
- ▣ define and calculate the moment of the force in such examples
- ▣ recall and apply:  $\text{moment of a force (Nm)} = \text{force (N)} \times \text{distance (m)} \text{ (normal to direction of the force)}$

### Lesson 3

- ▣ explain how levers and gears transmit the rotational effects of forces.

### Lesson 4

- ▣ recall that the pressure in fluids (gases and liquids) causes a net force at right angles to any surface
- ▣ use the relationship between the force, the pressure and the area in contact
- ▣ recall and apply:  $\text{pressure (Pa)} = \text{force normal to a surface (N)} / \text{area of that surface (m}^2\text{)}$

## P3 Electricity

### Lesson 1

- Describe that charge is a property of all matter and there are +ve and –ve charges. The effects of charges are not normally seen on bodies that are neutral as their effects cancel out.
- Describe the production of static electricity, and sparking, by rubbing surfaces, and evidence that charged objects exert forces of attraction and repulsion on one another when not in contact.
- Explain how transfer of electrons between objects can explain the phenomena of statics.
- Explain the concept of an electric field and how it helps to explain the phenomena of statics.

### Lesson 2

- Recall that current depends on both resistance and p.d, and the units in which these are measured.
- Recall and apply the V, I and R relationship and that for some resistors the value of R remains constant but that in others it can change as the current changes.
- Apply the equations relating p.d., current, quantity of charge, resistance, power, energy and time, and solve problems for circuits which include resistors in series, using the concept of equivalent resistance.

### Lesson 3

- Recall that current is the rate of flow of charge (electrons) and the conditions needed for charge to flow
- Recall and use the relationship between quantity of charge, current and time.
- Recall and apply:  $\text{charge flow (C)} = \text{current (A)} \times \text{time (s)}$
- Recall and apply:  $\text{energy transferred (J)} = \text{charge (C)} \times \text{potential difference (V)}$

### Lesson 4

- Recall that current depends on both resistance and p.d, and the units in which these are measured.
- Recall and apply the V, I and R relationship and that for some resistors the value of R remains constant but that in others it can change as the current changes.
- Calculate the currents, p.ds and resistances in d.c. series and parallel circuits.
- Apply the equations relating p.d., current, quantity of charge, resistance, power, energy and time, and solve problems for circuits which include resistors in series, using the concept of equivalent resistance.
- Recall and apply:  $\text{potential difference (V)} = \text{current (A)} \times \text{resistance (}\Omega\text{)}$

### Lesson 5

- Describe the differences between series and parallel circuits.
- Represent d.c. circuits with the conventions of +ve and –ve terminal, and the symbols that represent common circuit elements.
- Explain why, if two resistors are in series the net R is increased, whereas if two resistors are in parallel it is decreased.
- Calculate the currents, p.ds and resistances in d.c. series and parallel circuits.
- current, quantity of charge, resistance, power, energy and time, and solve problems for circuits which include resistors in series, using the concept of equivalent resistance.

### Lesson 6

- Describe the differences between series and parallel circuits.
- Explain why, if two resistors are in series the net R is increased, whereas if two resistors are in parallel it is decreased.
- Calculate the currents, p.ds and resistances in d.c. series and parallel circuits.
- Apply the equations relating p.d., current, quantity of charge, resistance, power, energy and time, and solve problems for circuits which include resistors in series, using the concept of equivalent resistance.

### Lesson 7

- Use graphs to explore whether circuit elements are linear or non-linear
- Use graphs and relate the curves produced to the function and properties of circuit elements

## Lesson 8

- Explain how the power transfer in any circuit device is related to the p.d. across it and the current, and to the energy changes over a given time.
- Apply the equations relating p.d., current, quantity of charge, resistance, power, energy and time, and solve problems for circuits which include resistors in series, using the concept of equivalent resistance.
- Recall and apply: power (W) = potential difference (V) x current (A) = (current (A))<sup>2</sup> x resistance (Ω)
- Recall and apply: energy transferred (J, kWh) = power (W, kW) x time (s, h)

## P4 Magnetism

### Lesson 1

- Describe the attraction and repulsion between unlike and like magnetic poles
- Describe the difference between permanent and induced magnets
- Describe the characteristics of the magnetic field of a magnet, showing how strength and direction change from one point to another
- Explain how the behaviour of a magnetic (dipping) compass is related to evidence that the core of the Earth must be magnetic

### Lesson 2

- Describe the difference between permanent and induced magnets
- Describe how to show that a current can create a magnetic effect and describe the directions of the magnetic field around a conducting wire
- Recall that the strength of the field depends on the current and the distance from the conductor
- Explain how solenoid arrangements can enhance the magnetic effect

### Lesson 3

- Describe how a magnet and a current-carrying conductor exert a force on one another
- Show that Fleming's left-hand rule represents the force, conductor and magnetic field orientations
- Apply the equation that links force on the conductor to the magnetic flux density, current and length of the conductor
- apply: force on a conductor (at right angles to a magnetic field) carrying a current (N) = magnetic flux density (T) x current (A) x length (m)

### Lesson 4

- Explain how the force exerted from a magnet and a current-carrying conductor is used to cause rotation in electric motors

## TRIPLE SCIENCE ONLY

### Lesson 5

- Recall that a change in the magnetic field around a conductor can give rise to an induced potential difference across its ends, which could drive a current, generating a magnetic field that would oppose the original change

### Lesson 6

- Explain how this effect is used in an alternator to generate a.c., and in a dynamo to generate d.c.

### Lesson 7

- Explain how the effect of an alternating current in one circuit, in inducing a current in another, is used in transformers
- Explain how the ratio of the potential differences across the two circuits depends on the ratio of the numbers of turns in each one
- Apply the equations linking the p.ds and the number of turns in the two coils of a transformer, to the currents that flow in the circuits
- Apply: potential difference across primary coil (V) / potential difference across secondary coil (V) = number of turns in primary coil / number of turns in secondary coil

### Lesson 8

- Explain the action of the microphone in converting the pressure variations in sound waves into variations in current in electrical circuits, and the reverse effect used in loudspeakers and headphones



## **AQA (9-1) GCSE Business – revision list year 10**

### **3.1 The purpose and nature of businesses**

3.1.1 The purpose and nature of businesses	
Content	Additional information
<ul style="list-style-type: none"> <li>• Purpose of business</li> <li>• Reasons for starting a business</li> <li>• Basic functions and types of business</li> <li>• Business enterprise and entrepreneurship</li> <li>• Dynamic nature of business</li> </ul>	<ul style="list-style-type: none"> <li>• Understand what a business is and the reasons for starting a business</li> <li>• Understand the difference between goods and services, needs and wants</li> <li>• Understand the meaning of factors of production –</li> <li>• Define opportunity cost</li> <li>• Understand primary, secondary and tertiary</li> <li>• Understand the terms enterprise and entrepreneur</li> <li>• Outline the characteristics of an entrepreneur</li> <li>• Outline the objectives of an entrepreneur,</li> <li>• Understand that businesses face a constantly changing business environment</li> </ul>

3.1.2 Business ownership	
Content	Additional information
<ul style="list-style-type: none"> <li>• Sole traders</li> <li>• Partnerships</li> <li>• Private limited companies (ltd)</li> <li>• Public limited companies (plc)</li> <li>• Not-for-profit organisations</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the different legal structures that businesses adopt</li> <li>• Analyse the benefits and drawbacks of each legal structure)</li> <li>• Understand the concept of limited liability and which legal structures benefit from this</li> <li>• Evaluate which legal structure would be most appropriate for a variety of business examples, including new start-up businesses and large established businesses.</li> </ul>

3.1.3 Setting business aims and objectives	
Content	Additional information
<ul style="list-style-type: none"> <li>• What are business aims and objectives</li> <li>• Purpose of setting objectives</li> <li>• Role of objectives in running a business</li> <li>• Changing objectives</li> <li>• Use of objectives in judging success</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the main aims and objectives for businesses:</li> <li>• Understand the role of objectives in running a business</li> <li>• Understand how and why the objectives set will differ between businesses</li> <li>• Understand how and why the objectives set may change as businesses evolve</li> <li>• Understand the success of a business can be measured in other ways than profit.</li> </ul>

3.1.4 Stakeholders	
Content	Additional information
<ul style="list-style-type: none"> <li>• Main stakeholders of business</li> <li>• Objectives of stakeholders</li> <li>• Impact of business activity on stakeholders</li> <li>• Impact and influence stakeholders have on businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Understand what is meant by a stakeholder and who the main stakeholders of a business are</li> <li>• Understand stakeholders' main objectives</li> <li>• Understand the impact and influence stakeholders have on businesses and their objectives and how businesses may face conflict between stakeholders.</li> </ul>

3.1.5 Business location	
Content	Additional information
<ul style="list-style-type: none"> <li>• Factors influencing the location decision of a business</li> </ul>	<ul style="list-style-type: none"> <li>• understand the factors that influence where a business is located</li> </ul>

3.1.6 Business planning	
Content	Additional information
<ul style="list-style-type: none"> <li>• The purpose of business planning</li> <li>• The main sections within a business plan</li> <li>• Basic financial terms</li> <li>• Basic financial calculations</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the reasons why businesses create plans</li> <li>• Understand the main sections of a business plan</li> <li>• Analyse the benefits and drawbacks of business planning</li> <li>• Understand the difference between variable costs, fixed costs and total costs</li> <li>• Understand the concept of revenue, costs, profit and loss.</li> </ul>

3.1.7 Expanding a business	
Content	Additional information
<ul style="list-style-type: none"> <li>• Methods of expansion</li> <li>• Benefits and drawbacks of expansion</li> <li>• Economies of scale</li> <li>• Diseconomies of scale</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the advantages and disadvantages of methods of growth</li> <li>• Understand the methods used by businesses when expanding</li> <li>• Understand the benefits of growth and the drawbacks of growth</li> <li>• Understand the meaning of purchasing and technical economies of scale</li> <li>• Understand that with growth businesses increase the risk of diseconomies of scale occurring</li> <li>• Calculate and interpret average unit costs.</li> </ul>

### 3.5 Marketing

3.5.1 identifying and understanding customers	
Content	Additional information
The importance of identifying and satisfying customer needs	<p>the importance of identifying and satisfying customer needs, in order to:</p> <ul style="list-style-type: none"><li>• Provide a product or service that customers will buy</li><li>• Increase sales</li><li>• Select the correct marketing mix</li><li>• Avoid costly mistakes</li><li>• Be competitive</li></ul>

3.5.2 segmentation	
Content	Additional information
Types of segmentation	<p>understand how and why different businesses use segmentation to target customers, including:</p> <ul style="list-style-type: none"><li>• Gender</li><li>• Age</li><li>• Location</li><li>• Income</li></ul>

3.5.3 The purpose and methods of market research	
Content	Additional information
<p>Purpose of market research</p> <p>Collect information about:</p> <ul style="list-style-type: none"><li>• Demand</li><li>• Competition</li><li>• Target market</li></ul>	<ul style="list-style-type: none"><li>• understand why businesses conduct market research, such as to identify market opportunities and to get a better insight into their customers and competitors.</li></ul>
<p>Methods of market research to include primary and secondary:</p> <ul style="list-style-type: none"><li>• Questionnaires</li><li>• Surveys</li><li>• Interviews</li><li>• Focus groups</li><li>• Internet research</li><li>• Printed press eg newspapers</li></ul>	<ul style="list-style-type: none"><li>• identify the benefits and drawbacks for various market research techniques and select the best method for a given business.</li></ul>
<p>Use of market research:</p> <p>information that may help decision making</p>	<ul style="list-style-type: none"><li>• interpret and use qualitative and quantitative market research findings to help make appropriate decisions for different types of business.</li><li>• manipulate and interpret data from tables and charts.</li><li>• identify market size and market share.</li></ul>

3.5.4 The elements of the marketing mix: Price, Product. Promotion and Place (4Ps)	
Content	Additional information
Pricing methods, including: <ul style="list-style-type: none"> <li>• Price skimming</li> <li>• Price penetration</li> <li>• Competitive pricing</li> <li>• Loss leader</li> <li>• Cost-plus</li> </ul>	<ul style="list-style-type: none"> <li>• understand the main features of the pricing methods and the impact they will have on a business.</li> </ul>
The factors that include pricing decisions, including: <ul style="list-style-type: none"> <li>• Costs</li> <li>• Nature of the market</li> <li>• Degree of competition</li> <li>• Product life cycle</li> </ul>	<ul style="list-style-type: none"> <li>• recognise the factors, internal and external, which might influence the pricing decision, particularly as businesses grow and expand.</li> <li>• evaluate these factors and use them to assess the suitability of pricing methods for a given business.</li> <li>• understand the basic relationship between price and demand ie as prices rise demand is likely to fall.</li> </ul>
Product	<ul style="list-style-type: none"> <li>• benefits and risks of developing new products.</li> </ul> importance of product design, image and the needs of the target market when designing new products.
Product differentiation: <ul style="list-style-type: none"> <li>• Unique Selling Point (USP)</li> <li>• Brand image</li> </ul>	<ul style="list-style-type: none"> <li>• significance of having a USP in a competitive market and the importance of a good brand image.</li> </ul>
The product lifecycle: <ul style="list-style-type: none"> <li>• Research and development</li> <li>• Introduction</li> <li>• Growth</li> <li>• Maturity</li> <li>• Decline</li> <li>• Extension strategies:               <ul style="list-style-type: none"> <li>• Updating package</li> <li>• Adding more or different features</li> <li>• Changing target market</li> <li>• Advertising</li> <li>• Price reduction</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• understand the product life cycle and demonstrate how demand for a product or service might change over time.</li> <li>• evaluate the effectiveness of extension strategies and when they would be suitable.</li> </ul>
Product portfolio	<ul style="list-style-type: none"> <li>• understand how and why businesses might broaden and balance their product portfolio using the Boston Matrix.</li> <li>• identify and explain the four categories of the Boston Box.</li> </ul>
Promotional methods  Advertising including: <ul style="list-style-type: none"> <li>• Newspapers</li> <li>• Magazines</li> <li>• Television</li> <li>• Internet</li> <li>• Billboards</li> </ul>	<ul style="list-style-type: none"> <li>• promotional methods which are likely to be used by a given business.</li> <li>• benefits and drawbacks of promotional methods used by businesses.</li> <li>• analyse factors influencing the selection of the promotion mix to assess their suitability for a given business.</li> </ul>

<p>PR:</p> <ul style="list-style-type: none"> <li>• Sales promotion</li> <li>• Point of sales displays</li> <li>• 2 for 1 offers</li> <li>• Free gifts</li> <li>• Samples</li> <li>• Coupons</li> <li>• Competitions</li> <li>• Sponsorship</li> <li>• Social media</li> </ul> <p>Factors influencing the selection of the promotional mix:</p> <ul style="list-style-type: none"> <li>• Finance available</li> <li>• Competitor actions</li> <li>• The nature of the product or service</li> <li>• The nature of the market</li> <li>• Target market</li> </ul> <p>Reasons for promotion:</p> <ul style="list-style-type: none"> <li>• Inform/remind customers about the product</li> <li>• Create or increase sales</li> <li>• Create or change the image of the product</li> <li>• Persuade customers to buy the product</li> </ul>	
<p>Place (the different channels of distribution used by businesses):</p> <ul style="list-style-type: none"> <li>• Retailers</li> <li>• Wholesalers</li> <li>• Telesales</li> </ul>	<ul style="list-style-type: none"> <li>• different channels of distribution used by businesses to gain access to potential customers.</li> <li>• analyse the appropriateness of each distribution method for a given scenario.</li> </ul>
<p>E-commerce and m-commerce</p>	<ul style="list-style-type: none"> <li>• analyse the growing importance of e-commerce and m-commerce and how it can extend the reach of businesses to include international markets.</li> <li>• benefits and drawbacks of a business using e-commerce and m-commerce.</li> </ul>
<ul style="list-style-type: none"> <li>• Integrated nature of the marketing mix</li> <li>• Using the marketing mix to inform and implement business decisions</li> </ul>	<ul style="list-style-type: none"> <li>• importance of the four elements and how they work together.</li> <li>• recommend appropriate marketing activities for a given business.</li> <li>• recognise how the marketing mix evolves over time and evaluate how businesses may react to this.</li> </ul>

### 3.6 Finance (year 10)

3.6.1 Sources of Finance	
Content	Additional information
<ul style="list-style-type: none"><li>• Methods businesses use to raise finance</li><li>• Appropriateness of sources of finance</li></ul>	<ul style="list-style-type: none"><li>• Understand the main internal and external sources of finance available (including family and friends, retained profit, a new share issue, obtaining a loan or mortgage, selling unwanted assets, overdrafts, trade credit, hire purchase and government grants)</li><li>• Analyse the advantages and disadvantages of each method for a given situation</li><li>• Evaluate the suitability of sources of finance for new and established businesses.</li></ul>

3.6.2 Cash flow	
Content	Additional information
<ul style="list-style-type: none"><li>• Importance of cash to business</li><li>• Interpreting cash flow forecasts</li><li>• Difference between cash and profit</li></ul>	<ul style="list-style-type: none"><li>• Understand the consequences of cash flow problems and the effect of positive cash flow</li><li>• Understand how and why cash flow forecasts are constructed</li><li>• Complete and interpret sections of a cash flow forecast</li><li>• Evaluate possible solutions to cash flow problems</li></ul>

3.6.3	
Content	Additional information
<ul style="list-style-type: none"><li>• Basic financial terms</li><li>• Basic calculations</li><li>• Average rate of return</li><li>• Break-even</li></ul>	<ul style="list-style-type: none"><li>• Understand the difference between variable costs, fixed costs and total costs</li><li>• Understand the concept of revenue, costs, profit and loss</li><li>• Understand the main investment projects that businesses undertake and to be able to calculate the average rate of return for these projects</li><li>• Understand the meaning of the term break-even output and interpret break-even charts</li><li>• Identify the break-even level of output and margin of safety from a break-even chart</li><li>• Evaluate the value of using break-even analysis to a business.</li></ul>

# Child Development

Revision Check List - Year 10

R018

## Exam Technique:

- Underline key words in the question with a different colour.
- Look to see how many marks the question is worth.
- Check for command words e.g. **List** means name them, **explain**, requires detailed descriptions, examples and advantages/disadvantage regarding that topic.
- Longer answer questions:

6 mark questions require 4 detailed points and examples.

8 mark questions require 6 detailed points and examples



## Topics to Revise: R018

### Learning Objective 1:

- Factors that affect the decision to have children
- Pre-conception Health
- Roles and responsibilities of parenthood
- Methods of contraception, their efficiency and reliability
- The structure and function of the male and female reproductive systems.



### Learning Objective 2:

- The roles of the different health professionals supporting the pregnant mother.
- The importance of antenatal and parenting classes.
- Routine checks carried out at an antenatal clinic.
- Specialised diagnostic tests.
- The choices available for delivery.
- The stages of labour and the methods of delivery, including pain relief.



### Learning Objective 3:

- The postnatal checks of the new born baby.
- The specific needs of the pre-term (premature) baby.
- The postnatal provision available for the mother and baby, and the postnatal needs of the family.
- Conditions for development.



# OCR GCSE Computer Science (J276)

Specification: <http://www.ocr.org.uk/qualifications/gcse-computer-science-j276-from-2016/>

You will have two exam papers, each lasting 1 hour 30 minutes:

- Computer systems (J276/01)
- Computational thinking, algorithms and programming (J276/02)

You will need to attempt all questions; each exam paper will be a whole new unseen paper which is being provided by OCR. The papers will include a mixture of short and long answer questions, some of which will require you to write pseudocode/algorithms.

**Remember you will not be allowed to use a calculator.**

You may find it useful to practice your programming skills – use <https://www.codecademy.com/> and <http://www.learnpython.org/>

## To prepare for the PPEs you should:

- Refer to your colour coded specification
  - Start your revision using the red coloured sections , then do the orange ones, then the green ones
- Use the online textbook (Cambridge elevate) – attempt end of chapter questions as well as using your own notes/previous exam papers
- Presentations on the N drive
- Past Papers and mark schemes for the old specification can be found here under the subheading past papers, mark schemes and reports: <http://www.ocr.org.uk/qualifications/gcse-computing-j275-from-2012/>

## Other useful resources:

**GCSE MOOC – you should have already registered as a learner -**

<https://www.cambridgegcsecomputing.org/>

**Teach-ict.com (Username – RG411EE, Password: binary9) :**

[http://www.teach-ict.com/2016/GCSE\\_Computing/OCR\\_J276/OCR\\_J276\\_home.html](http://www.teach-ict.com/2016/GCSE_Computing/OCR_J276/OCR_J276_home.html)

**BBC Bitesize GCSE Computer Science:** Although not specific to our course, there is a lot of useful information and quizzes to be used on there. <http://www.bbc.co.uk/education/subjects/z34k7ty>

**You should be keeping up to date with technology news:**

BBC Click: [http://news.bbc.co.uk/1/hi/programmes/click\\_online/](http://news.bbc.co.uk/1/hi/programmes/click_online/)

BBC Technology news: <http://www.bbc.co.uk/news/technology/>

The Guardian Technology news: <http://www.guardian.co.uk/technology>

The Daily Telegraph technology news: <http://www.telegraph.co.uk/technology/>

How Stuff Works: <http://electronics.howstuffworks.com/tech>

## YouTube Playlists:

**CraignDave -** <https://youtu.be/t8H6-anK0t4?list=PLCiOXwirraUAvkTPDWeeSqAKty3LAG37->

**Computer Science Tutor -**

[https://www.youtube.com/playlist?list=PL04uZ7242\\_M60Z2F8qV7sId99cuwV\\_Z3T](https://www.youtube.com/playlist?list=PL04uZ7242_M60Z2F8qV7sId99cuwV_Z3T)



# Design & Technology – Core

(This applies to all material areas)

Key areas	I know this	Ask for support
The impact of new and emerging technologies		
Evaluating new and emerging technologies to inform design decisions		
Energy Generation, storage and choosing appropriate sources		
Smart and composite materials and technical textiles		
Mechanical devices used to produce movement - Levers		
Papers and Boards		
Timbers		
Basic Maths		

## Design & Technology - Textiles

Key areas	In particular	I know this	Ask for support
<b>Design and development</b>  The design process	Context Analysis Design Brief Research Specification Designs Development Final Design Planning Making Evaluating Testing Modification Use of ICT in designing		
<b>Sustainability</b>	The 6Rs Social moral and cultural issues Environmental issues Globalisation		
<b>Materials</b>	Fibres and their performance characteristics Fabrics and their performance characteristics Modern and Smart materials		
<b>Processes and Construction methods</b>	Weaving Knitting Joining fabrics Finishing Decorative techniques Printing techniques Patterns and marking Care labelling and symbols		
<b>Industrial production</b>	Job, batch, mass, and JIT production Dyeing and printing Patterns grading and lay planning Health and safety QA & QC Use of ICT in production- CAD/CAM		
There will be some long answer questions so please be prepared to write a few paragraphs, check spelling (sometimes the words you use are in the exam paper already so copy the correct spelling!), grammar and punctuation.			

# Design & Technology – Resistant Materials

Key areas	In particular	I know this	Ask for support
Design Process	Key words – definitions and examples and reasons for each Context Analysis Design Brief Research Specification Designs Development Final Design Planning Making Evaluating Testing Modification		
Manufacturing processes	Plastic moulding techniques		
Finishing methods	On different materials – especially polymers		
Shaping materials	Polymers		
Modelling techniques	Ways of making models including CAD / CAM modelling – Advantages and Disadvantages		
Purpose of modelling	Why do designers produce models		
Modelling materials	What materials are suitable for modelling – including smart and modern materials		
Plastic processes	How plastics are formed into products – the different methods		
Plastic properties	Why certain plastics are used in certain situations		
Product development	Improving designs.		
There will be some long answer questions so please be prepared to write a few paragraphs, check spelling (sometimes the words you use are in the exam paper already so copy the correct spelling!), grammar and punctuation.			

# Design & Technology – Graphics

Key areas	In particular	I know this	Ask for support
Design Process	Key words – definitions and examples and reasons for each: <i>Context</i> <i>Analysis</i> <i>Design Brief</i> <i>Research</i> <i>Specification</i> <i>Designs</i> <i>Development</i> <i>Final Design</i> <i>Planning</i> <i>Making</i> <i>Evaluating</i> <i>Testing</i> <i>Modification</i>		
Packaging materials	Different materials used to package products – reasons – advantages and disadvantages		
Book binding	All the types and processes		
Materials - Paper and Board	Different types, their uses and properties		
Joining methods	Plastics and board and card		
Manufacturing systems	One off / batch / mass – costs JIT		
Modelling materials	What materials are suitable for modelling – including smart and modern materials		
Purpose of modelling	Why do designers produce models		
Modelling techniques	Ways of making models including CAD / CAM modelling – Advantages and Disadvantages		
ACCESSFM ME	Meaning of each of the words		
Basic Maths	To apply to questions areas, use of basic formulas		
There will be some long answer questions so please be prepared to write a few paragraphs, check spelling (sometimes the words you use are in the exam paper already so copy the correct spelling!), grammar and punctuation.			

# **Drama GCSE (AQA)**

**What's in the exam?** The exam is 1 hour 45 minutes long and you must answer Section A, Section B and Section C. **You need to bring your copy of the set text, 'The 39 Steps' to the exam, to help you answer questions in Section B.**

**Section A** - You must have knowledge of: stage positioning, theatre roles and responsibilities and types of staging. **You will be asked 4 multiple choice questions, worth 1 mark each.**

**-Use your GCSE pocket revision book and your 'theatre roles and responsibilities' hand out to revise this.**

**Section B** is about your set text, '*The 39 Steps*'. **You must bring your copy to the exam.** In this section, you will be given an extract from a scene and asked to write about how you would design the lighting/set/costume for the extract and how as an actor, you would play the parts of the characters within the extract, using your physical and vocal skills, the stage space and your interaction with other characters. You will also have to make reference to other parts of the play to justify your interpretations.

**You will have 4 questions to answer - worth 4, 8 12 and 20 marks.** Your fourth question will be a choice between acting or design— worth 20 marks.

You will need to use your class notes to revise the dramatic objective of every scene in the play, the BMFVG skills of playing the part, the set, props, sound, costume and lighting choices of every scene – appropriate to period and context and style. Use the N Drive/Shared area to access shared notes on certain scenes and video clips of your interpretations of key scenes.

**-Re-read the play to be secure on your knowledge of action and character.**

**-Revisit your notes on the context: 1930s fashion, furniture, Alfred Hitchcock, John Buchan**

**- Watch the Alfred Hitchcock film, *The 39 Steps*.**

**-Practice questions from your exam question list, incorporating WHAT, HOW and WHY into your answers.**

**Section C** is your response to live theatre. You will write about '*Things I Know to be True*' by Frantic Assembly. **You will answer one question from a choice of three – worth 32 marks.** You will be asked to focus on how an actor (/S) used their vocal and physical skills and stage space to communicate their character. You will be asked about how costume, lighting or sound was used to support the action of the play or reflect the style of the play.

- You should watch the play and learn quotes from key scenes.

- Read the 'Frantic Assembly' resource pack on FROG to further your understanding of interpretations.

- Read theatre reviews on the performance to further your knowledge of the play.

- Study the pictures on FROG to remember key scenes where actors' physicality, facial expressions, costumes, use of set or lighting communicated mood.

**-Use your GCSE pocket revision book to revise key drama terminology to support this question.**

**Further suggestions:**

**-Exemplar answers: Read through them again (we've looked at them in class) and compare the higher mark answers to yours. What have you missed and where are you doing well? What do you need to do to make improvements?**

# ECONOMICS GCSE - OCR

1. Introduction to Economics	
Topic	Learners should be able to
1.1 Main economic groups and factors of production	<ul style="list-style-type: none"> <li>explain the role of the main economic groups: <b>consumers</b>, <b>producers</b> and the <b>government</b>, including their interdependence</li> <li>explain the <b>factors of production</b>: land, labour, capital and enterprise, including how they might be combined</li> </ul>
2. The role of markets and money	
Topic	Learners should be able to
2.1 The role of markets	<ul style="list-style-type: none"> <li>explain what is meant by a <b>market</b></li> <li>explain the features of the <b>primary</b>, <b>secondary</b> and <b>tertiary sectors</b>, including the difference between the production of <b>goods</b> and <b>services</b></li> <li>explain the difference between <b>factor</b> and <b>product markets</b>, including their interdependence</li> <li>evaluate the costs and benefits of <b>specialisation</b> and <b>exchange</b> in <b>markets</b> including for producers, workers, regions and countries</li> </ul>
2.2 Demand	<ul style="list-style-type: none"> <li>explain what is meant by <b>demand</b></li> <li>draw and explain a <b>demand curve</b> using data, including individual and market demand</li> <li>draw shifts of, and movements along, the demand curve</li> <li>analyse the causes and consequences for consumers and producers, of shifts of, and movements along, the demand curve</li> <li>explain <b>price elasticity of demand</b></li> <li>draw demand curves of different elasticity</li> <li>evaluate the importance of price elasticity of demand for consumers and producers</li> </ul>
2.3 Supply	<ul style="list-style-type: none"> <li>explain what is meant by <b>supply</b></li> <li>draw and explain a <b>supply curve</b> using data, including individual and market supply</li> <li>draw shifts of, and movements along, the supply curve</li> <li>analyse the causes and consequences for consumers and producers, of shifts of, and movements along, the supply curve</li> <li>explain <b>price elasticity of supply</b></li> <li>draw supply curves of different elasticity</li> <li>evaluate the importance of price elasticity of supply for consumers and producers</li> </ul>
2.4 Price	<ul style="list-style-type: none"> <li>explain <b>price</b> as a reflection of worth and its role in determining an efficient distribution of resources</li> <li>explain what is meant by <b>equilibrium price</b> and <b>quantity</b></li> <li>draw and analyse the interaction of demand and supply</li> <li>explain the role of markets in the <b>determination of price</b> and the <b>allocation of resources</b></li> <li>analyse how the <b>market forces</b> of demand and supply affect <b>equilibrium price</b> and <b>quantity</b></li> </ul>

2.5 Competition	<ul style="list-style-type: none"> <li>• explain <b>competition</b> between producers in a <b>market economy</b>, including the reasons why producers compete</li> <li>• analyse how competition affects price</li> <li>• evaluate the economic impact of competition on producers and consumers</li> <li>• explain the meaning of <b>monopoly</b> and <b>oligopoly</b> and how they differ from <b>competitive markets</b></li> </ul>
2.6 Production	<ul style="list-style-type: none"> <li>• explain the role of producers, including individuals, firms and the government</li> <li>• evaluate the importance of <b>production</b> and <b>productivity</b> for the economy</li> <li>• calculate and explain <b>total cost</b>, <b>average cost</b>, <b>total revenue</b>, <b>average revenue</b>, <b>profit</b> and <b>loss</b></li> <li>• evaluate the importance of <b>cost</b>, <b>revenue</b>, <b>profit</b> and <b>loss</b> for producers, including how costs and revenues affect profit and supply</li> <li>• explain what is meant by <b>economies of scale</b></li> </ul>
2.7 The labour market	<ul style="list-style-type: none"> <li>• explain the role and operation of the <b>labour market</b>, including the interaction between workers and employers</li> <li>• analyse the determination of wages through supply and demand, including factors affecting the supply and demand of labour</li> <li>• explain and calculate <b>gross</b> and <b>net pay</b>, including deductions through <b>income tax</b>, <b>national insurance</b> and <b>pension</b> contributions</li> </ul>
2.8 The role of money and financial markets	<ul style="list-style-type: none"> <li>• explain the role of <b>money</b> as a <b>medium of exchange</b></li> <li>• explain the role of the <b>financial sector</b> for the economy, including financial institutions such as <b>banks</b>, <b>building societies</b> and <b>insurance</b> companies</li> <li>• evaluate the importance of the financial sector for consumers, producers and government</li> <li>• analyse how different <b>interest rates</b> affect the levels of <b>saving</b>, <b>borrowing</b> and <b>investment</b></li> <li>• calculate the effect on savings and borrowings of changes in the rate of interest.</li> </ul>

# Food, Preparation and Nutrition

## KEY AREAS FOR YOU TO FOCUS ON:

1	The relationship between diet and health	A balanced diet to provide the correct combination of food and nutrients for good health	✓ The importance of a healthy diet ✓ How to use the major commodity groups to make a balanced food choice
		The government's guidelines for a healthy diet and the inclusion of new regulations as they are issued	✓ The application of the eight tips for healthy eating
		Major diet-related health issues	✓ Diet-related diseases and conditions: obesity (weight loss and gain), cardiovascular, coronary heart disease (CHD), diabetes, diverticulitis, bone health (osteoporosis), dental health, anaemia and high blood pressure
2	Nutritional and dietary needs of different groups of people	Dietary needs for different stages of life	✓ Balanced combinations of food, nutrients and correct portion sizes for babies, toddlers, pre-school children, school-aged children, adolescents, adults, older people, pregnant and lactating women
		Food allergies and intolerances	✓ Foods that may cause an allergic reaction ✓ Food intolerance: lactose and gluten (coeliacs)
		The dietary reference values (DRVs) Macronutrients and micronutrients Calculation of nutritional values	✓ Recommended daily amounts of macro and micro nutrients and energy ✓ Plan recipes, meals and diets based on nutritional analysis
3	Nutritional needs when selecting recipes for different groups of people	Modifying recipes and meals to follow current dietary guidelines	✓ Altering or substituting ingredients, changing the method of cooking or process and changing the portion size

4	Energy balance	The relationship between food intake and physical activity and how to maintain a healthy body weight throughout life	✓ Basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements
		How to calculate energy values and the main sources of energy in the diet	✓ Recommended percentage of daily energy intake ✓ Sources of energy: protein, fat, carbohydrate and alcohol ✓ Units (kcal and kJ) for measuring energy
		The main factors that influence an individual's energy requirements	✓ Gender, life stage, pregnancy/lactation, size/body weight, genetics, occupation and lifestyle ✓ Deficiency and excess
5	Protein (Macronutrient)	Types and functions	✓ Types and structure: High biological value (HBV) and low biological value (LBV) ✓ Functions and deficiency
		Sources	✓ Animal and vegetable
6	Fat (Macronutrient)	Types and functions	✓ Types and structure: fats and oils (saturated, unsaturated and polyunsaturated) ✓ Functions and deficiency
		Sources	✓ Animal and vegetable: visible and invisible
7	Carbohydrate (Macronutrient)	Types and functions	✓ Sugar: monosaccharides, disaccharides, starch: complex carbohydrates and fibre ✓ Functions and deficiency
		Sources	✓ Sugar, starch and fibre
8	Vitamins (Micronutrients)	Types and functions	✓ Fat soluble vitamins: A (retinol and carotene), D, E, K ✓ Water soluble vitamins: B1 (thiamine), B2 (riboflavin), B3 (niacin), B9 (Folate/Folic acid), B12 (cobalamin), C (ascorbic acid) ✓ Functions and deficiency
		Sources	✓ Food sources of vitamins
9	Minerals (Micronutrients)	Types and functions	✓ Calcium, iron, sodium, fluoride, iodine, phosphorus ✓ Functions and deficiency
		Sources	✓ Foods that supply minerals
10	Water	Importance of water	✓ Functions and deficiency ✓ Recommended guidelines for daily intake of water
		Sources	✓ Sources and foods that give us water
11	Nutritional content of the main commodity groups	Bread, rice, potatoes, pasta and other starchy foods Fruit and vegetables Milk and dairy foods Meat, fish, eggs, beans and other non-dairy sources of protein Foods and drinks high in fat and/or sugar	✓ Nutritional content of each commodity group

- You will also need to look through all the practical dishes that we have made this year, you need to read through the nutritional section on the evaluations to see how you have applied your knowledge

You will also need to know how to basically make the dishes that you have made. You will not need to learn all the recipe's off by heart but you will need to know basic methods (e.g. cake making methods) and the ratios of ingredients (e.g. pastry)



# French

Year 10 French students will be doing Reading, Listening and Writing papers during the PPE period in May. All students will be sitting the higher paper.

The exams will cover the entire specification including the units we have covered so far as well as the units we will study in year 11. This is because we will use a real GCSE paper so that we can get the most accurate grade for the students.

To help students, we will provide a vocabulary help sheet for both reading and listening papers.

Students are reminded to revise their tenses as well as the vocabulary, how the tenses are formed (verb endings), and their meaning for the writing paper.

## GCSE French Rubrics / Instructions for the examination

Coche ( ✓ ) les [deux/trois/quatre ...] bonnes cases.	Tick ( ✓ ) the [two/three/four ...] correct boxes.
Coche ( ✓ ) les [deux/trois/quatre ...] phrases correctes.	Tick ( ✓ ) the [two/three/four ...] correct sentences.
Complète le paragraphe.	Complete the paragraph.
Complète la phrase.	Complete the sentence.
Écris la bonne lettre dans la case.	Write the correct letter in the box.
Écris les [deux/trois/quatre.....] bonnes lettres dans les boîtes.	Write the [two/three/four.....] correct letters in the boxes.
Écris la bonne lettre pour décrire.....	Write the correct letter to describe.....
Lis ce dépliant...	Read this leaflet.
Lis cet email.....	Read this email.
Lis ce poster.....	Read this poster.
Lis ce sms de [name].	Read [name's] text message?
Lis ces gros titres dans un journal.	Read these headlines from a newspaper.
Lis cette annonce dans un magazine pour les jeunes.	Read this advert from a magazine for young people.
Lis cette petite annonce.	Read this advert.
Relie avec les images et écris les [deux/trois/quatre ...] bonnes lettres dans les boîtes.	Match with the pictures and write the [two/three/four ...] correct letters in the boxes
Relie les phrases et les images pour compléter les .....	Match the sentences and the pictures to complete the .....
Trouve les bonnes paires et complète les phrases.	Match the pairs to complete the sentences
Utilise les mots dans la boîte.	Use the words in the box.
Utilise les mots dans la boîte et écris la bonne lettre.	Use the words in the box and write the correct letter.

## **French - Year 10 Revision for Higher Writing PPE**

This exam will involve-

- one 90 word essay on 4 bullet points
- one 150 word essay on 2 bullet points
- translation from English to French

You should do general revision on the topics we have covered so far in the course and grammar structures. Use FIT and feedback from your teachers to help you.

**Remember:** Ensure that you can give a range of opinions and explain your views in detail.

Revise how to connect your sentences effectively.

Check that you can include examples of a range of tenses (even if the question does not explicitly request them).

Prepare to make use of a wide range of vocabulary and structures in your work.

As part of your revision, fill in the English meanings.

Why not make a Quizlet to revise the words?

<b>Section A</b>	
l'incendie	
Voler	
En grève	
La pluie	
La commande	
Sauf	
Les pistes cyclables	
Les embouteillages	
(les voitures)Rouler	
Moins	
Furieux	
Plus d'emplois	
Enfermer	
Couteuse	
N'assure pas	
Télécharger	
Le grand écran	
À voix haute	
Même si	
Ne compter pas	
Un baccalauréat	
Rendre intéressant	
La bijouterie	

Attirer	
Abondantes	
Les produits locaux	
Propre	
L'eau du robinet	
<b>Section B</b>	
Né	
Essayer	
rejoindre	
Rêver	
Quelque chose	
Un bout de papier	
Le sommeil	
Trop tard	
Trop tot	
La fatigue	

As part of your revision, fill in the English meanings.

Why not make a Quizlet to revise the words?

<b>Section A</b>	
en avoir marre	
vol	
l'hôtesse	
louer	
le trajet	
quant	
construire	
réussir	
inquiet	
égal	
une telle chose	
gestes	
rémunéré	
compter	
ne ... aucune	
faculté	
loyer	
chômage	
essayer	
aussitôt	
licenciée	
se sentir	
coupable	

pire	
laisser tomber	
endroit	
en colère	
se conseiller	
fauteuil	
perte de temps	
espérait	
m'ennuie	
bijou	
au milieu	
tort	
sauf	
pleurer	
se détendre	
semble	
la circulation	
gaz d'échappement	
malgré	
sans-abris	
puisque	

# Year 10 Geography PPE Revision Check List

## Natural Hazards

Key Ideas	Specification Content
Natural hazards pose major risks to people and property.	Definition of a natural hazard. Types of natural hazard. Factors affecting hazard risk.
Earthquakes and volcanic eruptions are the result of physical processes.	Plate tectonics theory. Global distribution of earthquakes and volcanic eruptions and their relationship to plate margins. Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity.
The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth.	Primary and secondary effects of a tectonic hazard. Immediate and long-term responses to a tectonic hazard. Use named examples to show how the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth.
Management can reduce the effects of a tectonic hazard.	Reasons why people continue to live in areas at risk from a tectonic hazard. How monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard.
Global atmospheric circulation helps to determine patterns of weather and climate.	General atmospheric circulation model: pressure belts and surface winds.
Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions.	Global distribution of tropical storms (hurricanes, cyclones, typhoons). An understanding of the relationship between tropical storms and general atmospheric circulation. Causes of tropical storms and the sequence of their formation and development. The structure and features of a tropical storm. How climate change might affect the distribution, frequency and intensity of tropical storms.
Tropical storms have significant effects on people and the environment.	Primary and secondary effects of tropical storms. Immediate and long-term responses to tropical storms. Use a named example of a tropical storm to show its effects and responses. How monitoring, prediction, protection and planning can reduce the effects of tropical storms.
The UK is affected by a number of weather hazards.	An overview of types of weather hazard experienced in the UK.
Extreme weather events in the UK have impacts on human activity.	An example of a recent extreme weather event in the UK to illustrate: •• causes •• social, economic and environmental impacts •• how management strategies can reduce risk. Evidence that weather is becoming more extreme in the UK.
Climate change is the result of natural and human factors,	Evidence for climate change from the beginning of the Quaternary period to the present day.

and has a range of effects.	<p>Possible causes of climate change:</p> <ul style="list-style-type: none"> <li>• natural factors – orbital changes, volcanic activity and solar output</li> <li>• human factors – use of fossil fuels, agriculture and deforestation.</li> </ul> <p>Overview of the effects of climate change on people and the environment.</p>
Managing climate change involves both mitigation (reducing causes) and adaptation (responding to change).	<p>Managing climate change:</p> <ul style="list-style-type: none"> <li>• mitigation – alternative energy production, carbon capture, planting trees, international agreements</li> <li>• adaptation – change in agricultural systems, managing water supply, reducing risk from rising sea levels.</li> </ul>

## The Living World

Key Ideas	Specification Content
Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.	<p>An example of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system, an understanding of producers, consumers, decomposers, food chain, food web and nutrient cycling.</p> <p>The balance between components. The impact on the ecosystem of changing one component.</p> <p>An overview of the distribution and characteristics of large scale natural global ecosystems.</p>
Tropical rainforest ecosystems have a range of distinctive characteristics.	<p>The physical characteristics of a tropical rainforest.</p> <p>The interdependence of climate, water, soils, plants, animals and people.</p> <p>How plants and animals adapt to the physical conditions.</p> <p>Issues related to biodiversity.</p>
Deforestation has economic and environmental impacts.	<p>Changing rates of deforestation.</p> <p>A case study of a tropical rainforest to illustrate:</p> <ul style="list-style-type: none"> <li>• causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth</li> <li>• impacts of deforestation – economic development, soil erosion, contribution to climate change.</li> </ul>
Tropical rainforests need to be managed to be sustainable.	<p>Value of tropical rainforests to people and the environment.</p> <p>Strategies used to manage the rainforest sustainably – selective logging and replanting, conservation and education, ecotourism and international agreements about the use of tropical hardwoods, debt reduction.</p>
Hot desert ecosystems have a range of distinctive characteristics.	<p>The physical characteristics of a hot desert.</p> <p>The interdependence of climate, water, soils, plants, animals and people.</p> <p>How plants and animals adapt to the physical conditions.</p> <p>Issues related to biodiversity.</p>
Development of hot desert environments creates opportunities and challenges.	<p>A case study of a hot desert to illustrate:</p> <ul style="list-style-type: none"> <li>• development opportunities in hot desert environments: mineral extraction, energy, farming, tourism</li> <li>• challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.</li> </ul>
Areas on the fringe of hot deserts are at risk of desertification.	<p>Causes of desertification – climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion.</p> <p>Strategies used to reduce the risk of desertification – water and soil management, tree planting and use of appropriate technology.</p>



# Urban Issues and Challenges

Key Ideas	Specification Content
A growing percentage of the world's population lives in urban areas.	<p>The global pattern of urban change.</p> <p>Urban trends in different parts of the world including HICs and LICs.</p> <p>Factors affecting the rate of urbanisation – migration (push–pull theory), natural increase.</p> <p>The emergence of megacities.</p>
Urban growth creates opportunities and challenges for cities in LICs and NEEs.	<p>A case study of a major city in an LIC or NEE to illustrate:</p> <ul style="list-style-type: none"> <li>• the location and importance of the city, regionally, nationally and internationally</li> <li>• causes of growth: natural increase and migration</li> <li>• how urban growth has created opportunities:</li> <li>• social: access to services – health and education; access to resources – water supply, energy</li> <li>• economic: how urban industrial areas can be a stimulus for economic development</li> <li>• how urban growth has created challenges:</li> <li>• managing urban growth – slums, squatter settlements</li> <li>• providing clean water, sanitation systems and energy</li> <li>• providing access to services – health and education</li> <li>• reducing unemployment and crime</li> <li>• managing environmental issues – waste disposal, air and water pollution, traffic congestion.</li> </ul> <p>An example of how urban planning is improving the quality of life for the urban poor.</p>
Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges.	<p>Overview of the distribution of population and the major cities in the UK.</p> <p>A case study of a major city in the UK to illustrate:</p> <ul style="list-style-type: none"> <li>• the location and importance of the city in the UK and the wider world</li> <li>• impacts of national and international migration on the growth and character of the city</li> <li>• how urban change has created opportunities:</li> <li>• social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems</li> <li>• environmental: urban greening</li> <li>• how urban change has created challenges:</li> <li>• social and economic: urban deprivation, inequalities in housing, education, health and employment</li> <li>• environmental: dereliction, building on brownfield and greenfield sites, waste disposal</li> <li>• the impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements.</li> </ul> <p>An example of an urban regeneration project to show:</p> <ul style="list-style-type: none"> <li>• reasons why the area needed regeneration</li> <li>• the main features of the project.</li> </ul>
Urban sustainability requires management of resources and transport.	<p>Features of sustainable urban living:</p> <ul style="list-style-type: none"> <li>• water and energy conservation</li> <li>• waste recycling</li> <li>• creating green space.</li> </ul> <p>How urban transport strategies</p>

# German

There will be three papers at either Foundation or Higher level. 10Y1 will do Higher. 10X1 will do Foundation at this stage of the course (unless Miss Dovaston has spoken to you).

The vocab sets can also be found in your class folder on Quizlet – make sure you revise the vocab for the correct tier.

The papers are –

- Listening
- Reading
- Writing

Attached are the vocabulary lists to be revised for the **Listening** and **Reading** papers.

For the **Writing** you should revise your corrected oral notes on the following topics:

Personal identity, family and marriage

Technology in everyday life

Freetime, food and festivals.

Corrected versions of notes can be found on the N drive –

N:\Departments\MFL\LessonResources\German\GCSE\Oral notes for conversation\Yr 10 and then your class name.

### 3.5.1 Rubrics and instructions

The following is a guide to the sort of rubrics and instructions which will be used in Section B of the Listening and Reading exams. The list is indicative, not exclusive.

German	English
<b>Achtung!</b> Du kannst die Buchstaben mehr als ein Mal benutzen.	<b>N.B.</b> You can use the same letter more than once.
Beantworte <b>die beiden Teile der Frage</b> .	Answer <b>both parts of the question</b> .
Beantworte die Fragen auf <b>Deutsch</b> .	Answer the questions in <b>German</b> .
Beantworte diese Fragen.	Answer these questions.
Ergänze ... auf <b>Deutsch</b> .	Complete... in <b>German</b> .
Ergänze den folgenden Text mit jeweils <b>einem</b> Wort von der Liste unten.	Complete the following gap-text with <b>one</b> word for each gap from the list below.
Ergänze die Lücken.	Fill in the gaps/blanks.
Ergänze die Tabelle auf <b>Deutsch</b> .	Complete the table in <b>German</b> .
Erwähne einen positiven Aspekt/einen Vorteil/einen negativen Aspekt/einen Nachteil.	Mention one positive aspect/one advantage/one negative aspect/one disadvantage.
Es ist welche Person? Schreibe den Namen ins Kästchen.	Which person is it? Write the name in the box.
Füll die Tabelle auf <b>Deutsch</b> aus.	Complete the table in <b>German</b> .
Für eine negative Meinung, schreib <b>N</b> , für eine positive Meinung, schreib <b>P</b> , für eine positive und	For a negative opinion, write <b>N</b> , for a positive opinion, write <b>P</b> , for a positive and negative opinion,

German	English
negative Meinung, schreib <b>P + N</b> .	write <b>P + N</b> .
Gib (zwei) Details.	Give (two) details.
Hör das folgende Gespräch/die folgende Diskussion/das folgende Interview/den folgenden Bericht.	Listen to the following conversation/discussion/interview/report.
Lies ...	Read...
Schreib den richtigen Buchstaben ins Kästchen.	Write the correct letter in the box.
Schreib <b>R</b> , wenn die Aussage richtig ist, <b>F</b> , wenn die Aussage falsch ist, <b>NT</b> , wenn die Aussage nicht im Text ist.	Write <b>(R)</b> , if the statement is correct, <b>(F)</b> , if the statement is false and <b>(NT)</b> , if the statement is not mentioned.
Vollständige Sätze sind <b>nicht</b> nötig.	It is not necessary to write in full sentences.
Wähle die richtige Aktivität und schreib den Buchstaben ins Kästchen.	Choose the correct activity and write the correct letter in the box.
Welche <b>(sechs)</b> Aussagen sind richtig?	Which <b>(six)</b> statements are correct?
Welche Antwort ist richtig?	Which answer is correct?
The following is a guide to the sort of rubrics and instructions which will be used in the Writing exam. The list is indicative, not exclusive.	

German	English
--------	---------

Beschreib...

Describe...

German	English
Du musst ungefähr <b>40</b> Wörter auf <b>Deutsch</b> schreiben.	You must write approximately <b>40</b> words in <b>German</b> .
Du musst ungefähr <b>90</b> Wörter auf <b>Deutsch</b> schreiben. Schreib etwas über alle Punkte der Aufgabe.	You must write approximately <b>90</b> words in <b>German</b> . Write something about each bullet point.
Du musst ungefähr <b>150</b> Wörter auf <b>Deutsch</b> schreiben. Schreib etwas über beide Punkte der Aufgabe.	You must write approximately <b>150</b> words in <b>German</b> . Write something about both bullet points.
Schreib...	Write...
Schreib etwas über...	Write something about...
Schreib <b>vier</b> Sätze auf <b>Deutsch</b> über das Foto.	Write <b>four</b> sentences in <b>German</b> about the photo.
Vergleich...	Compare...

## Foundation Reading German GCSE

Im Ausland	abroad
Geheimnisse	secrets
Keine(e)	No/not any
Sich streiten	argue
Sich gut verstehen	To get on well
wichtig	important
nervig	annoying
peinlich	embarrassing
morgen	tomorrow
heute	today
Darf nicht	Not allowed
besuchen	To visit
krank	ill
Geschenk	present
gekauft	bought
Geburtstagskarte	birthday
Hunger haben	To be hungry
Durst haben	To be thirsty
möchte	Would like
wandern	To hike
Hütte	hut
Den Weg zeigen	To show the way
wiedersehen	To see again
Warten auf	To wait for
Theaterkasse	Theatre box office
Karten	tickets

Samstag	Saturday
U-Bahn	Underground train /tube
Nach Hause	home
Nacht	night
krank	ill
Krankenhaus	hospital
Ich weiß/du weißt	I know/you know
wo	where
welche	which
Wie weit	How far
wie	how
wer	who
alles	everything
Küche	kitchen
schicken	To send
SMS	A text
Laufen/gelaufen	To run (can also mean to walk on foot)/ran ,walked
ungesund	unhealthy
Schlagzeug	drums
In die Berge	To the mountains
Aufs Land	To the country
teuer	expensive
Jugendklub	Youth club
Zeit	time
selten	Rarely/not often
Geburtstag	birthday
Stadtmitte	Town centre
Zu Hause	At home

Essen lieber	To prefer eating
Schulregeln	School rules
Kein(e)	No/not any
Sich schminken	To put on make up
verboten	forbidden
Ohrringe	earrings
Weder .... noch	Neither nor
stören	To disturb
rauchen	smoking
Treppe	stairs
mitten	In the middle
Stadt	town
sitzen	To sit
Zu Fuß	On foot
zehn	Ten (revise numbers 1-10)
Tochter	daughter
ihre	Her (can also mean their)
sie	She (can also mean they)
kühl	cool
Auf Urlaub	On holiday
richtig	Right/correct/true
Aussagen	statements
Buchstaben	Letters of alphabet
Kästchen	box
bleiben	To stay
mindestens	At least
entspannen	To relax
fast	almost



alle	all
Im Meer	In the sea
Am Strand	On the beach
Sich sonnen	To sunbathe
Die meisten	Most of
heiß	hot
Sprechen/spricht	Speak/speaks
Kellner(in)	Waiter/waitress
lecker	delicious
Vorteil	advantage
schnell	Quick,fast
buchen	To book
sparen	To save
er	he
wohnen	To live

Erdkunde	Geography
toll	great
Geschichte	history
langweilig	boring
Nachmittags	In the afternoons
gern	With pleasure (to like doing something)
Andere(n)	other
Schüler	pupils
Letzt(es)	last
Kino	cinema
gegangen	went

## Foundation Listening German GCSE

<b>Fisch</b>	<b>fish</b>
<b>Birnen</b>	<b>pears</b>
<b>Lehrer/Lehrerin</b>	<b>teacher</b>
<b>Gärtner</b>	<b>gardener</b>
<b>Musiker</b>	<b>musician</b>
<b>Feuerwehrmann</b>	<b>fireman</b>
<b>Kellnerin</b>	<b>waitress</b>
<b>Koch</b>	<b>cook</b>
<b>nett</b>	<b>nice</b>
<b>hilfsbereit</b>	<b>helpful</b>
<b>streng</b>	<b>strict</b>
<b>Hausaufgaben</b>	<b>homework</b>
<b>viele</b>	<b>Lots of</b>
<b>Jetzt</b>	<b>now</b>
<b>fernsehen</b>	<b>Watch tv</b>
<b>ungesund</b>	<b>unhealthy</b>
<b>wohnen</b>	<b>To live</b>
<b>gern</b>	<b>With pleasure (like)</b>
<b>dort</b>	<b>there</b>
<b>weil</b>	<b>because</b>
<b>ruhig</b>	<b>quiet</b>
<b>laut</b>	<b>loud</b>
<b>Viele Leute</b>	<b>Lots of people</b>
<b>Jeden Tag</b>	<b>Every day</b>
<b>windsurfen</b>	<b>Wind surfing</b>
<b>Essen gehen</b>	<b>Go out to eat</b>
<b>langweilig</b>	<b>boring</b>

<b>Kino</b>	<b>cinema</b>
<b>Schloss</b>	<b>castle</b>
<b>Stadt</b>	<b>town</b>
<b>Geschenke</b>	<b>presents</b>
<b>kaufen</b>	<b>To buy</b>
<b>modisch</b>	<b>fashionable</b>
<b>nutzlos</b>	<b>useless</b>
<b>obwohl</b>	<b>although</b>
<b>wichtig</b>	<b>important</b>
<b>Jedes Wochenende</b>	<b>Every weekend</b>
<b>sicher</b>	<b>safe</b>
<b>fühlen</b>	<b>To feel</b>
<b>Um.....zu</b>	<b>In order to</b>
<b>Als Kleinkind</b>	<b>As a small child</b>
<b>Vor drei Jahren</b>	<b>Three years ago</b>
<b>entspannend</b>	<b>relaxing</b>
<b>Selber gelernt</b>	<b>Self-taught</b>
<b>gekauft</b>	<b>bought</b>
<b>Profi</b>	<b>A professional</b>
<b>Im Ausland</b>	<b>abroad</b>
<b>Alt/älter/ältest</b>	<b>Old/older/oldest</b>
<b>Besucher</b>	<b>visitors</b>
<b>Fernsehturm</b>	<b>TV tower</b>
<b>Gebäude</b>	<b>building</b>
<b>Denkmal</b>	<b>Memorial</b>
<b>berühmt</b>	<b>famous</b>
<b>zerstören</b>	<b>To destroy</b>
<b>Die Umwelt</b>	<b>The environment</b>

<b>Rad fahren</b>	<b>To cycle</b>
<b>Zu Fuß</b>	<b>On foot/walk</b>
<b>verbessern</b>	<b>improve</b>
<b>Luftqualität</b>	<b>Quality of the air</b>
<b>Abgase</b>	<b>Exhaust fumes</b>
<b>Veterinärmedizin</b>	<b>Veterinary medicine</b>
<b>Licht ausmachen</b>	<b>Switch off light</b>
<b>sparen</b>	<b>To save</b>
<b>warum</b>	<b>why</b>
<b>Arbeit suchen</b>	<b>Look for a job/ for work</b>
<b>praktisch</b>	<b>practical</b>
<b>In den Sommerferien</b>	<b>In the Summer holidays</b>
<b>Urlaub machen</b>	<b>To go on holiday</b>
<b>Mechaniker(in)</b>	<b>mechanic</b>

## Higher Reading German GCSE

Im Ausland	abroad
Geheimnisse	secrets
Keine(e)	No/not any
Sich streiten	argue
Sich gut verstehen	To get on well
wichtig	important
nervig	annoying
peinlich	embarrassing
morgen	tomorrow
heute	today
Darf nicht	Not allowed
besuchen	To visit
krank	ill
Geschenk	present
gekauft	bought
Geburtstagskarte	birthday
Hunger haben	To be hungry
Durst haben	To be thirsty
möchte	Would like
wandern	To hike
Hütte	hut
Den Weg zeigen	To show the way
wiedersehen	To see again
Warten auf	To wait for
Tormann/Torfrau	goalkeeper
Nationalmannschaft	National team

Das erste Mal	The first time
Weltmeisterschaft	World Cup
Die Saison	season
Am Anfang	At the start
stundenlang	For hours
täglich	daily
Zeit	time
teilen	To share
Motorrad	Motor bike
reagieren	To react
erstaunt	surprised
damit	With it (can also be so that)
Auf den ersten Blick	At first sight
heiraten	To marry
Vor einem Jahr	A year ago
Wollen/wollte	Want/wanted
nur	only
befreundet	To be friends with
Abitur	A levels
Heimat	Home country
Braut	bride
Eltern	parents
gemischt	mixed
Gymnasium	Grammar school
Lehrer	teacher
streng	strict
obwohl	although
schwierig	hard

Erdkunde	Geography
Im Unterricht	In lessons
aufpassen	To pay attention
mündlich	Oral/speaking
stark	strong
andere	other
Fremdsprachen	Foreign languages
Ausbildung	training
Bankkauffrau/Bankkaufmann	Bank clerk
üben	To practise
schlafen	To sleep
Straße	street
Viele Leute	Many people
Obdachlose	Homeless people
bieten	To offer
Schlafplatz	Place to sleep
Medizinische Versorgung	Medical provision
verloren	lost
Wohnung	flat
Zu Hause	home
Geschenk	present
nach	After ( can also mean to)
schlecht	bad
Magen	stomach
Es stimmt nicht	It's not true
Flüssigkeit	liquid
füllen	To fill
enthalten	To contain

verdünnen	To thin/dilute
Schuljahr	School year
Regeln	rules
kritisieren	To criticize
Schüler	pupils
reden	To talk
Küste	coast
Fischer	fisherman
wo	where
was	what
wie	how
wer	who
lassen	To let
warum	why
gebraucht	needed
fleißig	Hard working
Sachen	things
geflogen	flew
Erinnerung(en)	Memory /Memories
Diese(n)	This/these
Urlaub	holiday
gegen	against
Karibik	Caribbean
wirklich	really
Arbeitskollegen	Work colleagues
Doppelhaus	Semi detached house
Gute Noten	Good marks
bekommen	To get



Tochter	daughter
arbeiten	To work
Frau	Woman/wife/Mrs
trennen	To separate
Scheiden lassen	To get divorced

## Higher Listening German GCSE

Als Kleinkind	As a small child
Vor drei Jahren	Three years ago
entspannend	relaxing
Selber gelernt	Self-taught
gekauft	bought
Profi	A professional
Im Ausland	abroad
Alt/älter/ältest	Old/older/oldest
Besucher	visitors
Fernsehturm	TV tower
Gebäude	building
Denkmal	Memorial
berühmt	famous
Eine eins	A grade 1 (top grade)
Eine Fünf/eine Sechs	A 5 or 6 (bad grades)
Lehrer	teacher
verstehen	understand
Zu schwer/schwierig	Too hard/difficult

Gymnasium	Grammar school
Realschule	Secondary modern school
Einwohner	inhabitants
Rentner	pensioners
Die meisten	Most of them
wenig	Not much/little
Zu tun	To do
Landschaft	landscape
Gegend	area
Laufen	running
prima	great
Angst haben	To be frightened
spannend	excited
gleichzeitig	At the same time
gleich	same
Meinung	opinion
Nie wieder	Never again
Sich freuen	To be happy
traurig	sad
Viel Neues	Lots of new things
gelernt	learned
frische Luft	Fresh air
Süßigkeiten	sweets
Sich ernähren	To eat
besser	better
Sich entscheiden	To decide
Monaten	months
gestohlen	stolen

jemand	someone
ohne	without
leben	live
Neuster Technologie	Latest technology
Unfall	accident
Stau	Traffic jam
Autobahn	motorway
Bleiben	stay
Geduld	patience
Nebel	fog
einchecken	To check in
Fluggäste	Passengers on the flight
Gartenfest	Garden festival
Eng	close
Beziehung	relationship
selten	rarely
Streit	arguments
reden	To talk
alles	everything
vorschlagen	To suggest
Schulmannschaft	School team
zusammengehören	To belong together
immer	always
füreinander	For each other
da	There (also means as,because)
benutzen	To use
Auswahl	choice
Groß/größer	Big/bigger

Rund um die Uhr	Round the clock/24 hours a day
zerstören	To destroy
Die Umwelt	The environment
Rad fahren	To cycle
Zu Fuß	On foot/walk
verbessern	improve
Luftqualität	Quality of the air
Abgase	Exhaust fumes
Veterinärmedizin	Veterinary medicine
Licht ausmachen	Switch off light
sparen	To save
warum	why
hoffen	To hope
In Zukunft	In future
Tierarzt	vet
Studium	Degree/studying
jahrelang	For years
verdienen	earn
Stadt/Stadtrand/Vorort	Town/edge of town/suburb
wo	where
angenehm	pleasant
Grünanlagen	Green spaces

# Health and Social Care

## Year 10 PPE Revision list

### Learning Aim A:

#### Factors that affect health and wellbeing

### **A1: Factors affecting health and wellbeing**

- Physical and lifestyle factors
- Social, emotional and cultural
- Economic factors
- Environmental factors
- The impact of life events relating to relationship changes and changes in life circumstances

# History

The History PPE will consist of 1 examination lasting one hour and 45minutes. There will be two sections each worth 40 marks. They will consist of the following question types:

Section 1: 2x 4 mark questions and 1x 8 mark question on two interpretations. A 4 mark question, and 8 mark question, and a 12 mark question.

Section 2: 1x 4 mark source question and 1 x12 mark 'how useful' source question. An 8 mark question, and a 16 mark question.

## Topics to revise for section 1: America 1920-73

1. Mass Production and the motor industry
2. Other reasons for the boom e.g. hire purchase, tariffs, consumerism
3. Who did and did not benefit from the boom
4. Entertainment and Jazz
5. Women in the 20's
6. Organised crime, prohibition and its effect on society
7. Causes of racial tension/immigration
8. KKK and the Red Scare
9. The Great depression: unemployment, farmers and businessmen
10. Hoover's response to the depression and his unpopularity
11. Roosevelt's election as President
12. Successes and limitations of the New Deal
13. Opposition to the New Deal and the Supreme Court
14. Was the New Deal successful or not?
15. Culture in the 1930s (literature, movies and music)
16. The impact of the Second World War on the economy
17. Women and Black Americans during World War two
18. The American Dream and economic growth
19. McCarthyism
20. Popular culture, Rock and Roll and television
21. The Civil Rights Movement in the 60s
22. Martin Luther King and the Civil Rights movement
23. Malcolm X and Black Power movement
24. The Civil Rights Acts of 1964 and 1968
25. Social Policies of Presidents Kennedy and Johnson
26. Feminism in the 60s

## Topics to revise for section 2: Conflict and Tension 1918-39

1. Aims of the Big Three
2. Why the Big Three disagreed
3. Terms of the Treaty of Versailles
4. Allied reaction to the Treaty
5. Judging who got the most from the Treaty
6. German reaction to the Treaty
7. Was the Treaty fair?
8. Structure and aims of the League of Nations
9. Weaknesses of the League of Nations
10. How the League helped people
11. Successes and failures of the League in the 1920s
12. Locarno Treaty and the Kellogg-Briand Pact
13. Why Japan invaded Manchuria
14. How the League reacted to the Japanese invasion of Manchuria
15. Why Italy invaded Abyssinia
16. How the League reacted to the Italian invasion of Abyssinia
17. Hitler's aims and how other countries reacted
18. Hitler's early policies a): Disarmament conference, Dolfuss Affair, Rearmament
- Hitler's early policies b): Saar, Stresa Front, Anglo-German naval Agreement
19. The remilitarisation of the Rhineland
20. Anschluss with Austria
21. Reasons for and against appeasement
22. The Sudetenland crisis
23. The Munich agreement
24. The Collapse of Czechoslovakia
25. The Nazi Soviet Pact

# Music

The exam will be 1 hour 45 minutes long and will consist of:

- **6 listening questions** on set works
- **1 listening question** on an unknown piece.
- **1 long answer question** comparing a set work to an unknown piece (which you will hear)
- **1 melodic and rhythmic dictation question.**

You will need to revise **all** of the set works that you have studied so far which will include:

- Queen- Killer Queen
- Purcell- Music for a While
- J Williams- Star Wars
- Schwartz- Defying Gravity
- Beethoven- Movement 1 from 'Pathetique' sonata.

For each set work you will need to be familiar with the key features such as:

- Structure
- Harmony/tonality
- Dynamics
- Texture
- Instrumentation
- Rhythm
- Tempo/metre

It is also a good idea to listen to the other set works that we **haven't** yet studied in detail as there will be one **general** listening question on one of these.

## **Top tips for music revision:**

- **Categorise your revision notes** into the different musical features above- make sure you know at least a few features for each set work in each category.
- **Active listening** to the set works is the key. Don't just have them on in the background as you do other revision. Listen carefully to different features each time you play the set work, e.g. focus on the texture one time, instruments another time etc.
- **Listen to small chunks** of the music. In the exam you will only hear a 30 second extract of the music. Practice writing down the features to 30 second sections. **Remember-** musical features are not always the same all the way through so the features may change depending on which section of the set work you listen to.



# Physical Education

**1.17** Anaerobic and aerobic exercise

**3.1** Health, fitness and exercise

**3.2** The components of fitness and fitness testing

**3.3** Onwards – All components of fitness: Cardiovascular fitness, strength, muscular endurance, flexibility, body composition, agility, balance, coordination, reaction time, speed, power

**3.14** Onwards – Principles of training: Individual needs, specificity, progressive overload, overtraining, reversibility

**3.20 to 3.24** Methods of training

**3.26** PAR-Q

**3.27** How to optimise training and avoid injury

**3.28** Sporting Injuries

**3.29** Performance Enhancing Drugs

**3.30** Warm ups and cool downs

**4.1** Onwards... Lifestyle choices, balanced diet, optimum weight, maintaining an optimum weight

**5.4** Setting SMART targets

Remember that marks come from the application and the analysis of the topics.

You must develop all statements and make LINKS TO PERFORMANCE.

# Spanish

## Spanish: Vocabulary for Foundation Listening PPE

Llave	
principal	
La caja fuerte	
La ropa de cama	
Sacar fotos	
Chatear	
Descargar	
Navegar por internet	
Bombero	
valiente	
periodista	
Casarse	
preocuparse	
La lluvia	
bañarse	
Ducharse	
encender	
El aire acondicionado	
El papel	
La lata	
Hacer falta de	
ancianos	
Los mayores	
recuerdos	
Las instalaciones	
decepcionado	
Un palacio	
Un castillo	
La pizarra	
En cuanto a	
Hace viento	

### Learn the vocabulary for:

- ✓ different types of food and drinks
- ✓ different types of film and TV programme
- ✓ sports and freetime activities
- ✓ opinion vocabulary

## **Spanish: Vocabulary for Higher Listening PPE**

As for foundation with this additional vocabulary...

Un asiento	
Aficionados	
Los partidos	
El Gordo	
repartir	
El premio	
Días festivos	
extranjeros	
Fumar porros	
emboracharse	
Desde entonces	
La empresa	
Subirse el sueldo	
pedir	
aconsejar	
Tener ganas de	
conductor	
apagar	
Vale la pena	
huérfano	
todavía	
egoísta	
agradecer	
lograr	
olvidar	
incierto	
orgulloso	
Volver a empezar	
Tal vez	
dejar	
Una marca	
La juventud	
fabricar	
algodón	
Pieles de animales	
Fibras sintéticas	
Estar equivocado	
amenazar	
mezclar	
prendas	
sobrina	
Sacar buenas notas	
La enseñanza	
concurrido	
Me fastidia que	
Los almacenes	
Organizaciones benéficas	
El AVE	
EL andén	

vía	
volar	
Tener confianza con	
comportarse	
El cariño	

### **Spanish: Vocabulary for Year 10 Foundation Reading PPE**

**Revise: sports, family members, healthy living, rooms of the house and furniture, Film & TV programmes, jobs**

Las afueras	
Compañeros de clase	
Un partido	
Un parque temático	
climatizada	
La cocina	
Consejos	
alimentos	
La tentación	
Acostarse	
Los marineros	
El paisaje	
parar	
hermoso	
El oro	
pobre	
¡Qué raro!	
Las reglas	
Las instalaciones	
Hacer falta	
El recreo	
La ventana	
retratos	
fuera	
La Guerra civil	
Los ricos	
La pobreza	
El hambre	
jubilarse	
Trabajar a tiempo parcial	
Hacerse socio de	
El río	
El bosque	
El vestido	
La batería	

Las noticias	
Un taller	
mascotas	
rationes	
Un novio/una novia	
Un torero	
Una fecha	
Un polideportivo	
mandar	
encontrar	

## Spanish: Vocabulary for Year 10 Higher Reading PPE

As for Foundation paper plus ...

Las redes sociales	
Estar equivocado	
buscar	
quejarse	
aprovechar	
Ser cuidadoso	
El muro	
Unas faltas	
probar	
Un sueldo	
Ser decepcionado	
romper	
Disfrutar de	
Darse cuenta de	
jovencita	
cargar	
camiones	
fastidiarse	
ganar	
Hacer huelga	
El alquiler	
mudarse	
Echar de menos	
Sin techo	
festejar	
Tener lugar	
quemar	
La tristeza	
La alegría	
sucio	
cerrar	
abrir	
Una sonrisa	
parda	
Los cristales	
lejana	
sola	
La liga	
tonto	
comportarse	

## **Spanish: Year 10 Foundation Writing PPE**

You will be expected to write:

- 1) 4 statements describing a picture
- 2) Approximately 40 words on the topic of free time.
- 3) Translate 5 short statements into Spanish  
(key words- ducharse: to have a shower, menos:less)
- 4) Approximately 90 words about either:  
School and future plans, a recent celebration  
Or  
Holidays (recent and future)

## **Spanish: Year 10 Higher Writing PPE**

You will be expected to write:

- 1) Approximately 90 words about either:  
School and future plans, a recent celebration  
Or  
Holidays (recent and future)
- 2) Approximately 150 words about either:  
Being happy and healthy  
Or  
Being a good friend and future plans
- 3) Translate a short passage of approximately 60 words into Spanish

# Spanish

## 3.5.1 Rubrics and instructions

The following is a guide to the sort of rubrics and instructions which will be used in Section B of the Listening and Reading exams. The list is indicative, not exclusive.

Spanish	English
Completa/Rellena la tabla/el texto/el espacio blanco en <b>español</b> .	Complete/Fill in the table/the text/the blank space in <b>Spanish</b> .
Completa la frase/las frases...	Complete the phrase(s)/sentence(s)...
Contesta a las preguntas en <b>español</b> .	Answer the questions in <b>Spanish</b> .
Da (dos) detalles...	Give (two) details...
Empareja...	Match...
Escribe la(s) letra(s) correcta(s) en cada casilla.	Write the correct letter(s) in each box.
Escribe la letra correcta/el número correcto en la casilla.	Write the correct letter/number in the box.
Escribe todos los detalles.	Write all the details/Give full details.
Escoge...	Choose...
Escucha la descripción/la opinión/la entrevista/ las noticias...	Listen to the description/the opinion/the interview/the news...
Indica...	Indicate...
Indica las...frases verdaderas.	Indicate the ...true phrases/sentences.
Lee el texto / el artículo / la lista de actividades / la lista de instrucciones / la información.	Read the text/the article/the list of activities/the list of instructions/the information.
Lee lo que dicen...	Read what they say...
Menciona una ventaja/desventaja...	Mention one advantage/disadvantage...
No es necesario escribir con frases completas.	It is not necessary to write in full sentences.
Escribe: <b>P</b> si la opinión es positiva <b>N</b> si la opinión es negativa <b>P+N</b> si la opinión es positiva y negativa	Write : <b>P</b> if the opinion is positive <b>N</b> if the opinion is negative <b>P+N</b> if the opinion is positive and negative
Puedes escribir la misma letra más de una vez.	You can use the same letter more than once.
¿Quién...?	Who...?
Responde a las dos partes de la pregunta.	Answer both parts of the question.
Selecciona/Escoge el párrafo...	Select/Choose the paragraph...

The following is a guide to the sort of rubrics and instructions which will be used in the Writing exam. The list is indicative, not exclusive.

Spanish	English
Escribe aproximadamente <b>40</b> palabras en <b>español</b> .	Write approximately <b>40</b> words in <b>Spanish</b> .
Escribe aproximadamente <b>90</b> palabras en <b>español</b> . Responde a todos los aspectos de la pregunta.	Write approximately <b>90</b> words in <b>Spanish</b> . Write something about each bullet point.
Escribe aproximadamente <b>150</b> palabras en <b>español</b> . Responde a los dos aspectos de la pregunta.	Write approximately <b>150</b> words in <b>Spanish</b> . Write something about both bullet points.
Escribe <b>cuatro</b> frases en <b>español</b> que describan la foto.	Write <b>four</b> sentences in <b>Spanish</b> about the photo.
Escribele sobre...	Write to him/her about...
Escribele una carta/un email.	Write a letter/email to him/her.
Menciona...	Mention...

☆☆☆☆☆