

**Year 7 Medium Term Plan Terms 3&4**

Unit Title and Lesson Number	Lesson Intent	Knowledge Goal	Practical Work	Steps to Success & Vocabulary	Assessment Opportunities & Homework
Biology Terms 3 & 4 lesson 1	To know the function and sources of the food groups. This feeds on from KS2 Nutrition where students learnt the importance of balanced diets. This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.	To explain the importance of different food groups.		<ul style="list-style-type: none"> <li>I can name the seven food groups.</li> <li>I can give examples of the examples of the seven food groups.</li> <li>I can explain the importance of each of the seven food groups.</li> </ul> <p><b><u>Vocabulary:</u></b> Carbohydrate, protein, fats, minerals, vitamins, fibre, water, energy, growth,</p>	Answers to retrieval questions.
Biology Terms 3 & 4 lesson 2	To know the chemical test for protein, fat, sugar and starch. This feeds on from KS2 Nutrition where students learnt the importance of balanced diets. This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.	To be able to test for the main food groups.	Food testing exp.	<ul style="list-style-type: none"> <li>I can describe how to carry out chemical tests for food groups.</li> <li>I can describe what a positive test result looks like for sugars, starch, fats and protein.</li> </ul> <p><b><u>Vocabulary:</u></b> Iodine, benedicts, biuret, ethanol, reagent,</p>	Answers to retrieval questions.
Biology Terms 3 & 4 lesson 3	To know the role of each organ in the digestive system. This feeds on from KS2 Nutrition where	To describe the structure of the digestive system.	Gums to bums exp.	<ul style="list-style-type: none"> <li>I can name the organs in the digestive system.</li> <li>I can explain the function of the</li> </ul>	Answers to retrieval questions.  <b><u>Homework:</u></b> Food testing 6 mark

	<p>students learnt the importance of balanced diets.</p> <p>This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.</p>			<p>organs in the digestive system.</p> <ul style="list-style-type: none"> <li>I can describe how digestion happens.</li> </ul> <p><b><u>Vocabulary:</u></b> Oesophagus, stomach, small intestine, large intestine, pancreas, liver, gall bladder, rectum, anus, enzyme, bile, stomach acid.</p>	question for marking.
Biology Terms 3 & 4 lesson 4	<p>To know how enzymes work.</p> <p>This feeds on from KS2 Nutrition where students learnt the importance of balanced diets.</p> <p>This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.</p>	To explain the function of enzymes.	Model gut exp.	<ul style="list-style-type: none"> <li>I can name the three digestive enzymes.</li> <li>I can describe what proteins, carbohydrates and fats are broken down to by enzymes.</li> <li>I can explain the role of enzymes in digestion.</li> </ul> <p><b><u>Vocabulary:</u></b> Lipase, carbohydrase, protease, sugars, fatty acids, glycerol, amino acids</p>	Answers to retrieval questions.
Biology Terms 3 & 4 lesson 5	<p>To know that bacteria is important in digestion.</p> <p>This feeds on from KS2 Nutrition where students learnt the importance of balanced diets.</p> <p>This feeds forward to Year 9 organisation unit where students learn about how these</p>	To describe the role of bacteria in digestion.		<ul style="list-style-type: none"> <li>I can explain how the small intestine is adapted for adsorption.</li> <li>I can discuss the benefits of gut bacteria in digestion.</li> <li>I can explain how plants gain nutrition.</li> </ul> <p><b><u>Vocabulary:</u></b> Adsorption, surface area,</p>	<p>Answers to retrieval questions.</p> <p>Exit Ticket 1</p>

	food groups are broken down.			blood supply, villi,	
Biology Terms 3 & 4 lesson 6	To know the consequences of an unbalanced diet. This feeds on from KS2 Nutrition where students learnt the importance of balanced diets. This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.	To explain factors effecting obesity and malnutrition.		<ul style="list-style-type: none"> <li>I can list the components of a balanced diet.</li> <li>I can explain the consequences of an unbalanced diet.</li> </ul> <p><b>Vocabulary:</b> Malnourished, balanced, obesity, unbalanced, deficiency, rickets, scurvy</p>	<p>Answers to retrieval questions.</p> <p>Feedback on 6 mark question.</p> <p><b>Homework:</b> Dr Beaumont &amp; Alexis Martin reading and comprehension task.</p>
Biology Terms 3 & 4 lesson 7	To know why different people have different requirements. This feeds on from KS2 Nutrition where students learnt the importance of balanced diets. This feeds forward to Year 9 organisation unit where students learn about how these food groups are broken down.	To explain the energy requirements of different groups of people.	Custard powder and screaming jelly baby demo.	<ul style="list-style-type: none"> <li>I can identify factors that cause differences in energy requirements.</li> <li>I can explain why different people have different energy requirements.</li> <li>I can calculate the energy requirements for a healthy diet in different groups of people</li> </ul> <p><b>Vocabulary:</b> Pregnant, gender, demographic, strenuous, activity, physical, calories, joules.</p>	<p>Answers to retrieval questions.</p>
Biology Terms 3 & 4	To know the effects of drugs on the body.	To explain how drugs affect the body.	Drugs case.	<ul style="list-style-type: none"> <li>I can name examples of legal and illegal</li> </ul>	<p>Answers to retrieval questions.</p>

lesson 8	<p>This feeds on from KS2 health where students learnt about factors that can damage health.</p> <p>This feeds forward to year 10 infection and response where students learn about communicable and non-communicable diseases.</p>			<p>drugs.</p> <ul style="list-style-type: none"> <li>I can describe the affects of different drugs on the body.</li> <li>I can explain how people become addicted.</li> </ul> <p><b><u>Vocabulary:</u></b> Legal, illegal, class, consequence, stimulant, depressant, amphetamine, barbiturate, brain, heart.</p>	Answers to homework questions.
Biology Terms 3 & 4 lesson 9	<p>To know the effects of alcohol on the body.</p> <p>This feeds on from KS2 health where students learnt about factors that can damage health.</p> <p>This feeds forward to year 10 infection and response where students learn about communicable and non-communicable diseases.</p>	To know how alcohol affects the body.		<ul style="list-style-type: none"> <li>I can explain how alcohol affects the body.</li> <li>I can explain how alcohol can put people in danger.</li> <li>I can describe how the long terms of alcohol can be treated.</li> </ul> <p><b><u>Vocabulary:</u></b> Liver, cirrhosis, brain, risk,</p>	Answers to retrieval questions.
Biology Terms 3 & 4 lesson 10	To consolidate all of our learning in the unit.	To prepare for assessment		<ul style="list-style-type: none"> <li>I can identify my areas to develop.</li> <li>I can use a variety of resources to support my revision.</li> </ul>	<p>Answers to retrieval questions.</p> <p>Exit Ticket 2</p> <p><b><u>Homework:</u></b> Revision (Seneca, mats, bitesize)</p>
Biology Terms 3 & 4 lesson 11	To check what we know.	To undertake assessment	Low stakes assessment and go through identifying misconceptions.		Low stakes end of topic assessment.

Chemistry Terms 3 & 4 lesson 1	To know that atoms aren't the smallest particle of matter. <i>This feeds on from KS2 classifying materials where students learnt to classify everyday objects.</i> <i>This feeds forward to year 10 radioactivity where students learn about the accepted model of the atom.</i>	To describe the structure of an atom.		<ul style="list-style-type: none"> <li>I can recognise diagrams of the atomic model.</li> <li>I can describe the subatomic particles in the atomic model.</li> <li>I can calculate the number of subatomic particles in an atom.</li> <li>I can recognise that all matter is made of atoms.</li> </ul> <p><b><u>Vocabulary:</u></b> Nucleus, neutron, proton, electron, orbital, positive, negative, negligible.</p>	Answers to retrieval questions.  <b><u>Homework:</u></b> 6 mark question on atom structure for marking.
Chemistry Terms 3 & 4 lesson 2	To classify materials as metals or non-metals based on properties. <i>This feeds on from KS2 classifying materials where students learnt to classify everyday objects.</i> <i>This feeds forward to year 10 structure and bonding where students learn why materials are conductors or insulators.</i>	To describe properties of metals and non-metals.	Conductors/insulators exp.	<ul style="list-style-type: none"> <li>I can list the properties of metals and non-metals.</li> <li>I can locate metals and non-metals in the Periodic Table.</li> <li>I can explain the properties of metals and non-metals with reference to their structure.</li> <li>I can relate the properties of metals and non-metals to their uses.</li> </ul> <p><b><u>Vocabulary:</u></b> Electrons, regular, free</p>	Answers to retrieval questions.

				moving, malleable, ductile, conductor, insulator, melting point, boiling point.	
Chemistry Terms 3 & 4 lesson 3	To handle and interpret data. This feeds on from KS2 classifying materials where students learnt to classify everyday objects. This feeds forward to year 9 atomic structure where students learn about how the periodic table was constructed.	To describe properties within groups and periods.	Alkali metals, samples of period 3 elements.	<ul style="list-style-type: none"> <li>I can deduce trends and patterns in tables of data.</li> <li>I can describe how elements are grouped together in groups and periods.</li> <li>I can explain how Mendeleev developed the modern Periodic Table.</li> </ul> <p><b>Vocabulary:</b> Interpret, group, period, ascending, descending,</p>	Answers to retrieval questions.
Chemistry terms 3 & 4 lesson 4	To link observations with evidence. This feeds on from KS2 classifying materials where students learnt to classify everyday objects. This feeds forward to year 9 atomic structure where students learn about how the periodic table was constructed.	To describe how properties relate to electron structure.	Alkali metals, halogen reactions.	<ul style="list-style-type: none"> <li>I can arrange electrons into shells.</li> <li>I can link the group number to the electron arrangement</li> <li>I can describe the patterns of reactivity for groups 1 and 7.</li> <li>I can explain the patterns of reactivity for groups 1 and 7 in the periodic table.</li> </ul> <p><b>Vocabulary:</b> Alkali metal, halogens, reactive, shielding, attraction, electrostatic.</p>	Answers to retrieval questions.  Feedback on 6 mark question
Chemistry	To know how	To describe elements,	Iron and sulphur exp,	<ul style="list-style-type: none"> <li>I can define the</li> </ul>	Answers to retrieval

<p>Terms 3 &amp; 4 lesson 5</p>	<p>properties can be altered.  This feeds on from KS2 classifying materials where students learnt to classify everyday objects.  This feeds forward to year 10 structure and bonding where students learn how atoms are bonded together to make new substances.</p>	<p>compounds and mixtures.</p>	<p>sodium in chlorine demo.</p>	<p>terms product and reactant.</p> <ul style="list-style-type: none"> <li>I can describe the differences between elements, compounds and mixtures.</li> <li>I can list some mixtures.</li> <li>I know that all the elements known are listed in the Periodic table.</li> <li>I can explain how reactants become products during a chemical reaction.</li> </ul> <p><b><u>Vocabulary:</u></b>  Compound, reactant, product, pure, impure, separate.</p>	<p>questions.</p> <p><b><u>Homework:</u></b>  Humphrey Davy reading and comprehension task.</p>
<p>Chemistry Terms 3 &amp; 4 lesson 6</p>	<p>To deduce names and formulas of compounds.  This feeds on from KS2 classifying materials where students learnt to classify everyday objects.  This feeds forward to year 10 structure and bonding where students learn how atoms are bonded together to make new substances.</p>	<p>To be confident using symbols and formula.</p>		<ul style="list-style-type: none"> <li>I can list examples of atoms, elements and compounds.</li> <li>I can represent compounds using their chemical formulae.</li> </ul> <p><b><u>Vocabulary:</u></b>  Positive, negative, charge, valency.</p>	<p>Answers to retrieval questions.</p> <p>Exit Ticket 1</p>

<p>Chemistry Terms 3 &amp; 4 lesson 7</p>	<p>To provide evidence for a chemical reaction occurring. This feeds on from KS2 classifying materials where students learnt to classify everyday objects. This feeds forward to year 10 structure and bonding where students learn how atoms are bonded together to make new substances.</p>	<p>To deduce signs of a chemical reaction.</p>	<p>Circus of chemical reactions.</p>	<ul style="list-style-type: none"> <li>I can list examples of chemical reactions.</li> <li>I can describe changes that occur during a chemical reaction.</li> </ul> <p><b>Vocabulary:</b> Colour, effervescence, temperature, combustion, displacement, thermal, decomposition, neutralisation.</p>	<p>Answers to retrieval questions.</p> <p>Answers to homework questions.</p>
<p>Chemistry Terms 3 &amp; 4 lesson 8</p>	<p>To write word and symbol equations. This feeds on from KS2 classifying materials where students learnt to classify everyday objects. This feeds forward to year 10 structure and bonding where students learn how atoms are bonded together to make new substances.</p>	<p>To write equations for reactions.</p>		<ul style="list-style-type: none"> <li>I can represent chemical reactions using word equations.</li> <li>I can represent chemical reaction using symbol equations.</li> </ul> <p><b>Vocabulary:</b> Aqueous, reactant, product, irreversible.</p>	<p>Answers to retrieval questions.</p> <p><b>Homework;</b> KS3 Science workbook pages 86/87</p>
<p>Chemistry Terms 3 &amp; 4 lesson 9</p>	<p>To balance equations. This feeds on from KS2 classifying materials where students learnt to classify everyday objects. This feeds forward to year 10 structure and bonding where</p>	<p>To explain why mass is conserved.</p>	<p>Marble chips and acid demo using balloons and balances.</p>	<ul style="list-style-type: none"> <li>I can explain why mass is conserved during a chemical reaction.</li> <li>I can represent reactions using balanced chemical equations.</li> </ul>	<p>Answers to retrieval questions.</p>



	students learn how atoms are bonded together to make new substances.			<b>Vocabulary:</b> Conserved, mass, balanced, unbalanced, system.	
Chemistry Terms 3 & 4 lesson 10	To consolidate all of our learning in the unit.	To prepare for assessment		<ul style="list-style-type: none"> <li>I can identify my areas to develop.</li> <li>I can use a variety of resources to support my revision.</li> </ul>	Answers to retrieval questions.  Exit Ticket 2  <b>Homework:</b> Revision (Seneca, mats, bitesize)
Chemistry Terms 3 & 4 lesson 11	To check what we know.	To undertake assessment	Low stakes assessment and go through identifying misconceptions.		Low stakes end of topic assessment.
Physics Terms 3 & 4 lesson 1	To identify load, effort and pivot. This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled. This feeds forward to year 11 forces where students learn about how simple machines work.	To describe how levers work.	Claw hammer, nail in wood, tin and screwdriver, grips and tight bottle, bottle opener and capped bottle.	<ul style="list-style-type: none"> <li>I can identify load, effort and pivots.</li> <li>I can describe levers.</li> </ul> <b>Vocabulary:</b> Load, effort, pivot, rotate, distance, force, lever.	Answers to retrieval questions.  <b>Homework:</b> KS3 Science Workbook pages 168/169.
Physics Terms 3 & 4 lesson 2	To manipulate the moment equation. This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled. This feeds forward to year 11 forces where	To calculate the turning force.	Balance beam kits.	<ul style="list-style-type: none"> <li>I can state what a moment is.</li> <li>I can calculate moments.</li> </ul> <b>Vocabulary:</b> Pivot, distance, turning force, moment, clockwise, anticlockwise.	Answers to retrieval questions.

	students calculate moments and link them to everyday situations.				
Physics Terms 3 & 4 lesson 3	To apply the moment equation to clockwise and anti-clockwise systems. This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled. This feeds forward to year 11 forces where students calculate moments and link them to everyday situations.	To solve moment problems.		<ul style="list-style-type: none"> <li>I can explain the effects of opposite moments.</li> <li>I can calculate resultant moments.</li> <li>I can interpret resultant forces to predict motion.</li> <li>I can calculate missing forces or distances.</li> </ul> <p><b>Vocabulary:</b> Clockwise, anticlockwise, balanced, unbalanced.</p>	Answers to retrieval questions.  Answers to homework questions.
Physics Terms 3 & 4 lesson 4	To describe simple machines. This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled. This feeds forward to year 9 energy where students learn to calculate efficiency.	To explain how pulleys work.	Pulley box.	<ul style="list-style-type: none"> <li>I can describe how a pulley works.</li> <li>I can explain how simple machines multiply force.</li> <li>I can describe the relationship between the number of pulleys and the force required.</li> </ul> <p><b>Vocabulary:</b> Pulley, force, efficient.</p>	Answers to retrieval questions.  <b>Homework:</b> 6 mark question on moments.
Physics Terms 3 & 4 lesson 5	To know why pressure is important in everyday situations. This feeds on from KS2 force and motion where students learn	To describe how pressure is used in everyday situations.	Drawing pin, knife, cheese wire.	<ul style="list-style-type: none"> <li>I can describe the term pressure.</li> <li>I can recognise the effect of changing the pressure on an object.</li> </ul>	Answers to retrieval questions.  Exit Ticket 1

	<p>about how objects are pushed and pulled.</p> <p>This feeds forward to year 11 forces where students learn about pressure in fluids.</p>			<ul style="list-style-type: none"> <li>I can recognise when the pressure on a surface has increased or decreased.</li> </ul> <p><b><u>Vocabulary:</u></b> Pressure, force, area,</p>	
Physics Terms 3 & 4 lesson 6	<p>To manipulate the pressure equations.</p> <p>This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled.</p> <p>This feeds forward to year 11 forces where students learn about pressure in fluids.</p>	To calculate pressure, force and area.		<ul style="list-style-type: none"> <li>I can calculate pressure.</li> <li>I can discuss some applications of changing pressure.</li> <li>I can explain the effects of pressure in terms of particles.</li> </ul> <p><b><u>Vocabulary:</u></b> Particles, application, force, area.</p>	Answers to retrieval questions.
Physics Terms 3 & 4 lesson 7	<p>To know how pressure affects liquids.</p> <p>This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled.</p> <p>This feeds forward to year 11 forces where students learn about pressure in fluids.</p>	To describe how pressure changes in liquids.	Cartesian diver, liquid level kit, spouted cylinder.	<ul style="list-style-type: none"> <li>I can explain how the pressure in liquids results in upthrust.</li> <li>I can explain how upthrust can cause objects to float.</li> <li>I can describe how the mass of liquid affects the pressure.</li> </ul> <p><b><u>Vocabulary:</u></b> Upthrust, mass, force,</p>	<p>Answers to retrieval questions.</p> <p>Feedback on 6 mark question.</p> <p><b><u>Homework:</u></b> Electrons reading and comprehension task.</p>
Physics Terms 3 & 4 lesson 8	<p>To know how gases cause a pressure.</p> <p>This feeds on from KS2 force and motion where students learn about how objects are</p>	To explain the term gas pressure.	Balloon, normal and frozen. Egg in flask trick, card and glass trick. Crushing can demo.	<ul style="list-style-type: none"> <li>I can describe the factors that affect the pressure of a gas.</li> <li>I can explain phenomena using</li> </ul>	Answers to retrieval questions.

	<p>pushed and pulled.</p> <p>This feeds forward to year 11 forces where students learn about pressure in fluids.</p>			<p>my scientific knowledge.</p> <p><b>Vocabulary:</b> Temperature, pressure, volume, implosion, explosion, force.</p>	
<p>Physics Terms 3 &amp; 4 lesson 9</p>	<p>To use the pressure equation to explain hydraulics.</p> <p>This feeds on from KS2 force and motion where students learn about how objects are pushed and pulled.</p> <p>This feeds forward to year 11 forces where students learn about pressure in fluids.</p>	<p>To describe how hydraulics work.</p>	<p>Mixtures of syringes.</p>	<ul style="list-style-type: none"> <li>I can explain how simple machines can multiply the force.</li> <li>I can use the pressure equation to explain how hydraulics work.</li> </ul> <p><b>Vocabulary:</b> Hydraulics, pressure, area, force, constant, machine, fluid.</p>	<p>Answers to retrieval questions.</p> <p>Answers to homework questions.</p>
<p>Physics Terms 3 &amp; 4 lesson 10</p>	<p>To consolidate all of our learning in the unit.</p>	<p>To prepare for assessment</p>		<ul style="list-style-type: none"> <li>I can identify my areas to develop.</li> <li>I can use a variety of resources to support my revision.</li> </ul>	<p>Answers to retrieval questions.</p> <p>Exit Ticket 2</p> <p><b>Homework:</b> Revision (Seneca, mats, bitesize)</p>
<p>Physics Terms 3 &amp; 4 lesson 11</p>	<p>To check what we know.</p>	<p>To undertake assessment</p>	<p>Low stakes assessment and go through identifying misconceptions.</p>		<p>Low stakes end of topic assessment.</p>