



Enhanced Further Learning

Spring 2

Year 9

Enhanced Further Learning: **Food Preparation and Nutrition**

Easier Tasks	Harder Tasks
<p>ARE: Be able to explain why people choose different types of food and how food is produced, processed and sold.</p> <p>Task: Research 2 of the following target groups and explain why they may need to follow a specific food diet.</p> <ol style="list-style-type: none"> 1. Muslims 2. Vegans 3. Elderly 4. Diabetics 	<p>ARE: Be able to state the main nutrients in the diet and know their function</p> <ol style="list-style-type: none"> 1. Explain the function of protein in the diet, and give examples of sources of protein (challenge: which foods contain protein which vegans could eat?) 2. Explain the function of fats in the diet, and give examples of sources of fat. (challenge: what is the function of unsaturated fats? Give some examples of sources of unsaturated fats and why they are more beneficial than saturated fats)
<p>Literacy</p> <p>ARE: Select the correct utensils and electrical equipment for food preparation.</p> <p>Task: Write out the definitions of these key words.</p> <ol style="list-style-type: none"> 1. Collander 2. Wok 3. Balloon whisk 4. Spatula 5. Fish slice 	<p>ARE: Be able to develop and adapt recipes to promote healthy eating.</p> <ol style="list-style-type: none"> 3. Task: Go onto the internet and find a recipe for a beef burger and chips. Explain how the ingredients could be changed to make the dish healthier.
<p>Skills/Numeracy</p> <p>ARE: Be able to explain the differences in cost when eating out or at home.</p> <p>Task: Go onto the internet and find the cost of the following meals at restaurants.</p> <ol style="list-style-type: none"> 1. Lasagne 2. Chicken Cesar salad 3. Chocolate fudge cake 4. Pepperoni pizza 5. Chicken wings <p>Challenge: Work out how much it would cost for a family of four to go to a restaurant and have 2 lasagne main meals with 1 Cesar salad side and 2 chicken wings and complete their meal with 3 chocolate fudge cakes.</p>	<ol style="list-style-type: none"> 4. Task: Go onto the internet and find a recipe for a spaghetti Bolognese. Explain how the cooking methods could be changed to make the dish healthier. 5. Task: Suggest healthier alternatives for the following: <ul style="list-style-type: none"> • Fried bacon • Deep fat fried chips • Chocolate mousse dessert • Crisps • Fried chicken

<p>Easier Tasks PQES hit:</p> <ul style="list-style-type: none"> - Each PQE in AO3. <p>Harder Tasks: PQES (1 and 2) hit:</p> <ul style="list-style-type: none"> - Each PQE in AO5 and AO6. <p>Harder Tasks PQES (3) hit:</p> <ul style="list-style-type: none"> - Each PQE in AO1 and AO2. <p>Harder Tasks PQES (3) hit:</p> <ul style="list-style-type: none"> - Each PQE in AO4. 	<p style="text-align: center;">Harder Tasks</p> <ol style="list-style-type: none"> 1) <u>Using the success criteria, can you write a persuasive/informative article for a teen magazine, discussing the importance of a child's imagination?</u> <ul style="list-style-type: none"> - AAFORREST Techniques - Varied sentence types - Varied punctuation (; : , !) 2) <u>Using the success criteria, can you write a descriptive narrative, describing a time something took you by surprise?</u> <ul style="list-style-type: none"> - Descriptive language techniques (metaphor/simile/ personification/ alliteration) - Varied sentence types - Effective paragraphing - Varied punctuation (; : , !)
<p style="text-align: center;">Easier Tasks</p> <p><u>Can you identify 3 similarities between the character Alice in 'Alice in Wonderland' and any other character in a Disney film.</u></p> <p>Things to consider:</p> <ul style="list-style-type: none"> - Experiences - Thoughts - Feelings - Personality <p>Back up each similarity with evidence about both characters.</p> <p style="text-align: center;">Literacy</p> <p><u>Define the following terms:</u></p> <ul style="list-style-type: none"> - Gothic - Fantasy - Horror - Fiction - Biography 	<ol style="list-style-type: none"> 3) Read the extract and answer the GCSE style questions. <ol style="list-style-type: none"> i) <u>Give one example of how the author uses language to show that Alice is confused.</u> ii) <u>Analyse how the author uses structure to show that Alice is confused.</u> <p>Look out for:</p> <ul style="list-style-type: none"> - Metaphor - Powerful verbs - Descriptive adjectives/adverbs - Alliteration - Listing - Repetition - Sentence types - Juxtaposition <ol style="list-style-type: none"> 4) <u>Evaluate how successfully the author presents a sense of mystery in the extract.</u> <p>Skills/Numeracy</p> <ol style="list-style-type: none"> 1) <u>Identify two things that show that Alice was bored (lines 1-5)</u> 2) <u>Identify two things that show the rabbit is in a rush. (paragraph 3)</u>

Alice In Wonderland

The below extract is taken from the first chapter of 'Alice In Wonderland'. Alice and her sister are sitting by a river, out in the countryside when she notices something mysterious.

ALICE was beginning to get very tired of sitting by her sister on the bank and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, "and what is the use of a book," thought Alice, "without pictures or conversations?"

So she was considering, in her own mind (as well as she could, for the hot day made her feel very sleepy and stupid), whether the pleasure of making a daisy-chain would be worth the trouble of getting up and picking the daisies, when suddenly a White Rabbit with pink eyes ran close by her.

There was nothing so very remarkable in that; nor did Alice think it so very much out of the way to hear the Rabbit say to itself "Oh dear! Oh dear! I shall be too late!" (when she thought it over afterwards it occurred to her that she ought to have wondered at this, but at the time it all seemed quite natural); but, when the Rabbit actually took a watch out of its waistcoat-pocket, and looked at it, and then hurried on, Alice started to her feet, for it flashed across her mind that she had never before seen a rabbit with either a waistcoat-pocket, or a watch to take out of it, and burning with curiosity, she ran across the field after it, and was just in time to see it pop down a large rabbit-hole under the hedge.

In another moment down went Alice after it, never once considering how in the world she was to get out again.

The rabbit-hole went straight on like a tunnel for some way, and then dipped suddenly down, so suddenly that Alice had not a moment to think about stopping herself before she found herself falling down what seemed to be a very deep well.

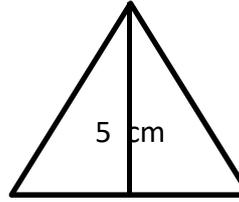
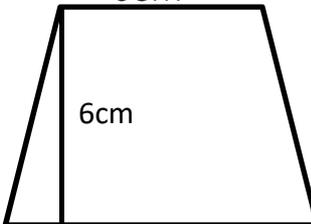
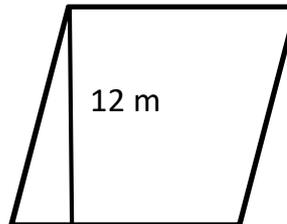
Enhanced Further Learning: **Geography**

Easier Tasks	Harder Tasks
<p>PQE = Describe the major upland & lowland areas and river systems in the UK. Task = Describe why locals would want to visit the Lake district tourism in a glacial area such as the Alps.</p> <p>Task = Describe the difference between upland and lowland areas (add named locations).</p>	<p>PQE = Explain the physical processes that produce distinctive glacial landforms. Task = Explain the formation of at least 3 erosional landforms (choose from corrie, arête, pyramidal peak, truncated spur, glacial trough, hanging valley)</p> <p>Task = Explain the formation of 3 depositional features (choose from moraine, drumlins, erratics, ribbon lakes)</p>
<p style="text-align: center;">Literacy</p> <p>Write a definition for the following (1 mark)</p> <ul style="list-style-type: none"> Plucking Abrasion Freeze-thaw Weathering Bulldozing Ablation Corrie Arete Pyramidal Peak 	<p>PQE = Describe how management strategies affect glaciated areas. Task = Using a named location, describe the impacts of tourism in a glaciated upland area.</p> <p>Task = Describe the management strategies that glacial areas can adopt to deal with large numbers of tourists.</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>PQE = Draw and annotate geographical sketches. Task = Using the internet annotate a photograph of the following landforms; corrie, arête, glacial trough, ribbon lake, drumlin, moraine and erratic (Skill).</p> <p>Get arty! - make a glacial trough and add a hanging valley and ribbon lake (Skill).</p>	<p><u>GCSE practice Questions</u></p> <p>“Why have the world glaciers retreated over the last 100 years?” (6 marks)</p> <p>“Describe the effects of avalanches in a named area” (6 marks)</p> <p>“Avalanches are a key concern in Alpine areas. Describe the management strategies designed to deal with this.” (6 marks)</p>

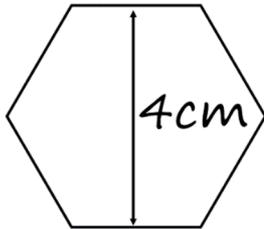
Enhanced Further Learning: **History**

Easier Tasks	Harder Tasks
<p>Exam grades 9-1</p> <ul style="list-style-type: none"> • Explain Domino Theory. • Research the Gulf of Tonkin Incident. • Describe the tactics of the Vietcong. • Compose a timeline of events in the Vietnam War. 	<p>Exam grades 9-1</p> <p>Explain why the USA got involved in the Vietnam War. You may use the following in your answer:</p> <ul style="list-style-type: none"> • Containment • Domino Theory. <p>(12 Marks)</p>
<p style="text-align: center;">Literacy</p> <p>Define the following key words;</p> <ul style="list-style-type: none"> • Capitalism • Communism • Vietminh • Rolling Thunder • Search and Destroy • Napalm • Vietcong • Agent Orange • Guerrilla Warfare 	<p>Explain why the Vietcong tactics were successful. You may use the following in your answer:</p> <ul style="list-style-type: none"> • Guerrilla Tactics • Ho Chi Minh Trail. <p>(12 marks)</p> <p>Explain why the opposition to the Vietnam War grew. You may wish to include the following in your answer:</p> <ul style="list-style-type: none"> • My Lai Massacre • Kent State University. <p>(12 marks)</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>Create a graph showing American troop involvement from 1960-1973.</p> <p>Make a list of reasons why America got involved in Vietnam.</p> <p>Create a pie chart of the casualties in Vietnam – which country suffered the most?</p>	<p>Explain why the USA withdrew from Vietnam. You may wish to include the following in your answer:</p> <ul style="list-style-type: none"> • The strength of North Vietnam • Failure of US tactics. <p>(12 marks)</p>

Enhanced Further Learning: **Maths (Foundation)**

<p align="center">Easier Tasks Grade 1/2</p>	<p align="center">Harder Tasks Grade 3/4</p>
<p>1. Simplify these: a) $3m + 4m - 6m - 3m$ b) $5m - 6b + 2m - 4b$</p> <p>2. Expand the following: a) $5(m - 3)$ b) $5t(2t + 3k)$</p> <p>3. Find the perimeter of a rectangular field that is 5m wide and 3m long. Give units for your answer.</p>	<p>1. Anne has three bags of marbles. Each bag contains n marbles. a) How many marbles does she have all together? b) Beryl gives her another three marbles. How many marbles does Anne have now? c) Anne puts one of her new marbles in each bag. How many marbles are there now in each bag? d) Anne takes two marbles out of each bag. How many marbles are there now in each bag?</p> <p>2. Expand and simplify each of these: a) $2y(3 + 4y) + y(5y - 1)$ b) $5p(3p + 4) + 2p(3 - 4p)$ c) $6d(4 - 2d) - d(3d - 2)$</p> <p>3. Find the area of each of these shapes:</p>
<p align="center">Literacy</p> <p>1. Explain what is meant by these terms – expand, factorise, like terms, substitute, expression.</p> <p>2. Draw the following shapes – trapezium, parallelogram, isosceles triangle. Can you identify the right angles, parallel and equal sides using the correct notation?</p>	<p>4. Using the formula $V = 3u - 4t$, evaluate V when $u = 7.4$ and $t = 2.1$.</p> <p>5. Factorise the following expressions: a) $3m + 6y$ b) $5t^2m - 15tm^2$</p>
<p align="center">Skills/Numeracy Grade 2/3</p> <p>1. What is the biggest perimeter of a rectangle with an area of 20cm^2.</p> <p>2. A circle has a radius of 7cm. Find the area and circumference of the circle. a) Leave your answer in π b) Give your answer to 1 decimal place</p>	<div style="display: flex; justify-content: space-around;"> <div>  <p>4cm 11cm</p> </div> <div>  <p>5 cm 7cm</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div>  <p>5cm 6cm 9cm</p> </div> <div>  <p>12 m 16 m</p> </div> </div>

Enhanced Further Learning: Maths (Higher)

<p style="text-align: center;">Easier Tasks (Grade 2,3)</p>	<p style="text-align: center;">Harder Tasks</p>
<p style="text-align: center;">Literacy</p> <p>1. Explain the difference between percentage increase / decrease and reverse percentages.</p> <p>2. Write in your own words a strategy of how to add or subtract mixed numbers.</p>	<p>1. Solve the following equations (Grade 3,4):</p> <p>a) $4m + 6 = 23$ b) $6(m - 4) = 15$ c) $5x + 3 = 3x - 8$ d) $\frac{3x}{5} + 7 = 12$ e) $\frac{3x+7}{4} = 12$</p> <p>2. Expand and simplify (Grade 3):</p> <p>a) $t(3t + 4) + 3(3t + 2t^2)$ b) $4e(2e - 5) - 6e^2(5e - 12)$</p> <p>3. In 2004 the Melchester County Council raise £14870000 in council tax. In 2005 it raised £15970000 in council tax. What was the percentage increase (Grade 4)?</p> <p>4. Adam, Tia and Jack share their lottery jackpot in the ratio of 4:3:7. Adam got £800. Work out the overall amount they won in jackpot (Grade 4).</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>1. Create two different equations that would have 13 as an answer. Try making them as hard as possible – include brackets or fractions.</p> <p>2. Research two different banks that offer savings accounts. Use compound interest to show which bank offers a better deal if you were to invest £100 for five years.</p>	<p>5. There are birds, bees and wasps in a garden. The ratio of birds to bees is 2:7. The ratio of bees to wasps is 3:5. There are 24 birds in the garden. How many wasps are there? (Grade 5)</p> <p>6. A regular hexagonal prism has length 5cm and height 4cm. If the volume of the prism is 120cm^3, how long is each side of the hexagon? (Grade 6)</p> <div style="text-align: right;">  </div>

Enhanced Further Learning: **French**

Easier Tasks	Harder Tasks
<p>PQE - Identify basic vocabulary: Take your vocab book home and learn 15 words by heart this week.</p> <p>PQE - Identify basic vocabulary: Make a revision mindmap of the words we have learned this half term.</p> <p>PQE - Identify basic vocabulary: Create a set of flashcards to help you learn the words we have learned this half term.</p>	<p>PQE - Writing : Write an answer to the questions in French:</p> <ul style="list-style-type: none"> - What do you use the internet for? - What is your favourite film? - What are the dangers of the internet? <p>PQE - Writing: Write a film review of a film you have watched recently.</p>
<p style="text-align: center;">Literacy</p> <p>Key words:</p> <p>La technologie – technology Un ordinateur – computer Un portable – mobile phone Les sites internet – websites Les réseaux sociaux – social networks Télécharger – to download S’amuser – to have fun</p>	<p>PQE - Listening: Watch a French film (ask your teacher for suggestions) and write a review of it in English.</p> <p>PQE - Identify basic vocabulary: Find an advert for a piece of technology (laptop, tablet, phone) in French and translate it.</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>PQE - Identify basic vocabulary: Create your own set of vocabulary games on Quizlet.</p> <p>PQE - Identify basic vocabulary: Create your own spelling test for people in your class on the vocabulary you have studied.</p>	

Enhanced Further Learning: Spanish

Easier Tasks	Harder Tasks
<p>PQE - Identify basic vocabulary: Take your vocab book home and learn 15 words by heart this week.</p> <p>PQE - Identify basic vocabulary: Make a revision mindmap of the words we have learned this half term.</p> <p>PQE - Identify basic vocabulary: Create a set of flashcards to help you learn the words we have learned this half term.</p>	<p>PQE - Writing : Write an answer to the questions in Spanish:</p> <ul style="list-style-type: none"> - ¿Para qué usas el internet? (What do you use the internet for?) - ¿Cuál es tu película favorita? (What is your favourite film?) - ¿Cuáles son los peligros del internet? (What are the dangers of the internet?)
<p style="text-align: center;">Literacy</p> <p>Key words:</p> <p>Uso – I use Mi móvil – my phone La red – the net Mandar mensajes – to send messages Descargar – to download</p>	<p>PQE - Writing: Write a film review of a film you have watched recently.</p> <p>PQE - Listening: Watch a Spanish film (ask your teacher for suggestions) and write a review of it in English.</p> <p>PQE - Identify basic vocabulary: Find an advert for a piece of technology (laptop, tablet, phone) in Spanish and translate it.</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>PQE - Identify basic vocabulary: Create your own set of vocabulary games on Quizlet.</p> <p>PQE - Identify basic vocabulary: Create your own spelling test for people in your class on the vocabulary you have studied.</p>	

Enhanced Further Learning: **PE**

Each time you attend Flexible Learning, this can also count as one piece of Enhanced Further Learning!

Easier Tasks	Harder Tasks
<p>ARE: Works with motivation and makes informed choices to lead a healthy and active lifestyle. Attend an extra curricular PE club after school. Think about a post exercise meal that would be suitable to replace the energy you have used. Make a food plate of this meal.</p> <p>Extension – include the quantities and proportions of each food group and say why you have chosen this meal.</p>	<p>ARE: Works with motivation and makes informed choices to lead a healthy and active lifestyle. Produce a research presentation, booklet or leaflet describing the key components of a balanced diet (Hint – there are 7!)</p> <p>Design your favourite meal of the week as either a picture, leaflet or PowerPoint presentation. Once you have done this, change some of the foods in the meal to their healthier alternatives.</p>
<p style="text-align: center;">Literacy</p> <p>ARE: Works with motivation and makes informed choices to lead a healthy and active lifestyle. Define the following terms: -Nutritionist -Dietician -Calorie -Trans-fats -Glucose -Protein -Carbohydrate -Saturated fat</p>	<p>Read the following new article and make a persuasive TV advert or leaflet trying to get more people to eat healthy food. http://www.dailymail.co.uk/health/article-3234663/A-poor-diet-worse-smoking-fatal-illnesses-Unhealthy-eating-accounts-nearly-11-disease-toll-England.html</p> <p>Create meal plans for the following staff members:</p> <ul style="list-style-type: none"> - PE teacher - Caretaker - Receptionist - Progress Leader - Canteen staff
<p style="text-align: center;">Skills/Numeracy</p> <p>ARE: Works with motivation and makes informed choices to lead a healthy and active lifestyle. Sum up the article in a 50 word piece of writing. http://michigan.gov/documents/mdch/7-Linking Nutrition and Academic Achievement 368748 7.pdf</p>	<p>Create a word search using key words related to diet and health. Can you get someone else to complete this? Give a list of definitions with your words.</p>

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Easier Tasks

1. Dance: Describe the difference between narrative and abstract dance. Include a short quote/screen grab of a narrative or abstract dance you find from youtube.
2. Theatre: Describe the difference between site specific theatre and theatre in the round.
3. Drama: Research the meaning of pace pause and accent when speaking
4. Photography: Take some photos on your camera phone using a variety of filters, of the weirdest things you see on a walk.
5. Research a fact file about Salvador Dali.
6. Research the history of your chosen instrument. How has it developed over the years?

Literacy

Drama Themes	Dance Musicality	Music Rhythm
Monologue	Stylistic qualities	
Composing		
Narrator	Choreography	
Syncopated		
Fine art Techniques	Photography Sepia	Film Pre-
production Layering	Chirocuso	Post-
production Sculpture		
Graphics Manipulation		
Creation		
Compression		

Harder Tasks

1. Create a fact file with at least 6 facts on choreographer Lea Anderson.
2. Plan and write/draw the structure/floor plan for a dance that uses the future as the stimulus. Think of a clear beginning, middle and end, and whether the piece begins or ends on stage, and what levels are used.
3. Create 6 dance actions and film yourself doing them that are based around the theme of the future.
4. Design the costume for a dancer that is dancing in a piece about dreams/nightmares.
5. Write a short script for two people or a monologue about an event that happens in the future.
6. Create your own painting/drawing that represents dreams.
7. Create a basic website with the company title 'The Future is...'. Decide what company this is and what service it offers or what produce it sells.
8. Come and collect an instrument progress pack from your Music teacher. Practice the skills. How far can you progress? Film yourself or show your teacher live
9. Discuss – is this art? Why? Why not?



Easier Tasks	Harder Tasks
<p>PQE: Assess religious teachings and explain their significance on the lives of followers</p> <p>Create a poster on the different Christian celebrations.</p> <p>Explain the difference between liturgical and non-liturgical worship.</p> <p>Design a spider diagram illustrating the different types of Christian denominations.</p>	<p>A) Outline three purposes of Christian missionary work (3 marks).</p> <p>B) Explain two reasons why evangelism is important to Christians. In your answer you must refer to a source of wisdom and authority (5 marks).</p> <p>PQE: Pupils can draw similarities between Islam and Christianity on key themes</p> <p>C) Describe two differences between Christian worship and of another religion you have studied (4 marks).</p>
<p style="text-align: center;">Literacy</p> <p>Define the following words and write a sentence explaining importance to Christians.</p> <ul style="list-style-type: none"> • Creed • Worship • Liturgical • Sacrament • Eucharist • Anoint • Epiphany • Parish • Reconciliation • Advent 	<p>PQE: Pupils can develop and explain their opinion effectively and provide a counter argument</p> <p>D) 'Prayer should be informal' Evaluate this statement considering arguments for and against. In your response you should:</p> <ul style="list-style-type: none"> • Refer to Christian teachings • Refer to different Christian points of view • Reach a justified conclusion (12 marks)
<p style="text-align: center;">Skills/Numeracy</p> <p>PQE: Pupils can develop and explain their opinion effectively and provide a counter argument</p> <ul style="list-style-type: none"> • Produce a spider diagram on sacraments and their significant Christian ceremonies. • Create a spider diagram on the different purposes of missionary work. Include arguments for and against missionary work. 	<p>E) 'Easter is the most important Christian festival'. Evaluate this statement considering arguments for and against, you should:</p> <ul style="list-style-type: none"> • Refer to Christian teachings • Refer to different Christian points of view • Reach a justified conclusion (12 marks)

Enhanced Further Learning: **Biology**

Easier Tasks	Harder Tasks
<p>Q1. Draw and label an enzyme with its active site (Grade 2)</p> <p>Q2. Name the three digestive enzymes (Grade 4)</p> <p>Q3. Give the word and balanced symbol equation for photosynthesis and respiration (Grade 5)</p> <p>Q4 . Draw and label a bacterial cell (Grade 4)</p> <p>Q5. Draw and label a plant cell (Grade 3)</p>	<p>Q1. Describe using a graph how temperature affects the rate of enzyme-controlled reactions. Use any optimum temperature (Grade 5)</p> <p>Q2. Describe and explain the effect of increasing the amount of substrate on an enzyme-controlled reaction. Draw the graph that goes with this (Grade 6-7)</p> <p>Q3 Compare an TEM to a light microscope and give example of what you would and would not be able to see (Grade 6)</p>
<p style="text-align: center;">Literacy Grade 9-1</p> <p>Define each key term:</p> <ul style="list-style-type: none"> - Optimum - Denatured - ATP - Magnification - Resolution - Diffusion - Aerobic - Anaerobic 	<p>Q4. Compare eukaryotic and prokaryotic cells. (Grade 5)</p> <p>Q5. Describe the effects of anaerobic respiration and how lactic acid can be removed from the body (Grade 7)</p> <p>Q6. Using a table, compare aerobic and anaerobic respiration</p> <p>Q7. Explain why fermentation is useful in the brewing and baking industry (Grade 7-9)</p>
<p style="text-align: center;">Skills/Numeracy</p> <p>1 – Give the formula for magnification (Grade 3)</p> <p>2 – Write the following numbers in standard form (Grade 4) 0.004, 0.000025, 0.0078</p> <p>3 – Convert the following numbers to mm 10cm, 1m, 250cm, 12µm, 120µm (Grade 4)</p>	<p>Q8. Explain how digestive enzymes work and why they are so important (Grade 4)</p>

Enhanced Further Learning: Chemistry

Easier Tasks

- 1) Give three examples of giant covalent structures (Grade 3)
- 2) What is a polymer? (Grade 3)
- 3) Give three properties of diamond and graphite (Grade 4)
- 4) What is a hydrocarbon? (Grade 3)
- 5) Give three examples of polymers? (Grade 4)

Literacy

Define the following key terms

- Fullerene
- Graphite
- Graphene
- Intermolecular forces
- Polymerisation
- Covalent bonds

Skills/Numeracy

Look at the table. It lists several compounds containing elements from group 7.

Name	Formula	Structure
Iodine monochloride	ICl	Simple molecular
Potassium chloride	KCl	Ionic
Sodium fluoride	NaF	Ionic
Fluoroethane	C ₂ H ₅ F	Simple molecular
Poly(fluoroethane)	(C ₂ H ₃ F) _n	Polymer

Q1. Which other compound would you expect to have similar mp/bp. Explain your answer?

Q2. Which two compounds will only conduct electricity molten or dissolved in water?

Harder Tasks

1. Describe the structure and bonding in diamond and graphite. (Grade 4)
2. What is meant by the term 'allotrope'. Give examples? (Grade 5)
3. Explain why diamond cannot conduct electricity? (Grade 5)
4. Describe the structure and bonding in fullerenes. Why is this structure able to conduct electricity (Grade 6)
5. Explain the difference between a weak and strong polymer in terms of bonding (Grade 6-7)
6. Explain why simple molecules have low melting and boiling points (Grade 6)
7. Discuss the factors that affect the bulk properties of materials (Grade 7)
8. What is meant by the term 'organic compound'? Give three examples and explain their structure (Grade 7-8)



Extension task- Ask your teacher for an exam question on this topic

Enhanced Further Learning: **Physics**

Easier Tasks	Harder Tasks																				
<ul style="list-style-type: none"> • Draw the models for a solid, liquid and gas. (Grade 3) • What are the names for the changes of state? (Grade 2) • What are the units for; (Grade 3) Mass Volume Density Speed Acceleration pressure 	<p>Draw the graph of a car ride (Grade 4)</p> <table border="1"> <tr> <td>Time(s)</td> <td>0</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> <td>35</td> <td>40</td> </tr> <tr> <td>speed(m/s)</td> <td>0</td> <td>2</td> <td>5</td> <td>8</td> <td>8</td> <td>15</td> <td>20</td> <td>24</td> <td>0</td> </tr> </table> <p>Looking at the graph – what information does it show? Can you work out how far the car travels? (Grade 5)</p> <p>A force of 20 N acts over an area of 2 m². What is the pressure? (Grade 4)</p>	Time(s)	0	5	10	15	20	25	30	35	40	speed(m/s)	0	2	5	8	8	15	20	24	0
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<p style="text-align: center;">Literacy</p> <ul style="list-style-type: none"> • Explain why gases have a low density (Grade 4) • How could you describe a solid (think like a scientist) (Grade 3) • Draw the ‘eureka can’ experiment- label the equipment and explain how and why we use this (Grade 4) 	<p>How can we increase pressure? (Grade 5)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reducing surface area <input type="checkbox"/> Increasing surface area <input type="checkbox"/> Reducing force <p>Describe the forces working on a parachutist after they jump from a plane. How does this affect their speed –(terminal velocity). (Grade 7)</p>																				
<p style="text-align: center;">Skills/Numeracy Grade 4</p> <p>What are the equations for;</p> <ul style="list-style-type: none"> • Density • Speed • Acceleration • Pressure in a fluid • Spring equation • momentum 	<p>How would you work out the specific heat capacity of a material? What equipment and what calculations would you need to do? (Grade 6)</p> <p>Why do materials such as water, copper, aluminium all have different SHC's. Make up 3 calculations on SHC of materials- look up the SHC of materials on the web to help. (Grade 8)</p>																				