

Hele's School

Year 7 IA2 Mastery Curriculum

Following the national removal of levels in 2015, schools were given the opportunity to create their own assessment system. The underlying principal of assessment in Year 7 and 8 is that students are **assessed against the key concepts and skills** that departments have identified as being important to allow students to make progress in their subject areas.

In Year 7 and 8, students are assessed into four bands of attainment – Mastering, Securing, Developing and Emerging – judged against the specific key concepts that have been taught and **assessed up to that particular point**. In order to track progress of students we identify which band we would expect students to be working in according to their prior attainment in reading and maths at KS2, as this is the main measure used by the Government and OFSTED, although our ultimate aim is for all students to aim to be at least secure in all the key concepts.

We would expect that students who are working in the following bands would be likely to go on to achieve the following grades at GCSE:

Band	KS2 Scaled (Reading Maths) Average Score and	Target Grades (grades)	GCSE (new)	Target Grades (old grades for comparison)
Emerging	80-94	1/2/3/4/5		G/F/E/D/C
Developing	95- 105	4/5/6		C/B
Securing	106-111	6/7/8		B/A/A*
Mastering	112-120	8/9		A*

It is important to understand that your child's attainment band may move up or down at each IA point depending on the performance in that particular unit of work and progress towards the specific key concepts taught. Please also note that **the concepts are designed to get progressively more challenging as the year goes on and that a student who remains in their target band throughout the key stage is making good progress.**

Art

Key Concepts taught and assessed in Year 7 at IA2:

1. Understanding Colour
2. Applying the formal elements to a practical task
3. Developing creativity

Emerging	Developing	Securing	Mastering
<p>Can copy pictures and objects as flat basic shapes.</p> <p>Can use a pencil, charcoal, crayons, chalk pastels and oil pastels to draw with a bit of control.</p> <p>My lines all have the same thickness and strength.</p> <p>Can use a paintbrush to apply paint with a bit of control. I can model simple flat shapes with clay.</p> <p>Can follow simple instructions to create a piece of artwork</p>	<p>Can copy some detailed 2D (two-dimensional) shapes.</p> <p>Can use a pencil, charcoal, crayons, chalk pastels and oil pastels to draw with some control.</p> <p>Can use different strengths and thicknesses of line.</p> <p>Can use a paintbrush with some control to make steady outlines and flat shapes.</p> <p>Can model simple shapes and forms in clay.</p> <p>Can also add texture to the surface of my clay by making different marks.</p> <p>Can follow instruction and show some personal elements</p> <p>Can see the connections the task and the related artist.</p>	<p>Can copy some detailed 2D (two-dimensional) shapes and some simple 3D (three-dimensional) forms.</p> <p>Can use different strengths of tonal shading to make the highlights, mid-tones and shadows that create the illusion of 3D form.</p> <p>Can use a paintbrush with control to paint different shapes without going over the outlines.</p> <p>Can model forms in clay that feature extra shapes added to the surface.</p> <p>Can also add textural effects by making different marks.</p> <p>Can follow instruction and show personal elements.</p> <p>Can include your own resources which are gathered independently.</p> <p>Can see the connections the task and the related artist.</p>	<p>Can copy 2D and 3D images from Primary and Secondary sources realistically</p> <p>Can use different strengths of tonal shading to make the highlights, mid-tones and shadows that create the illusion of 3D form.</p> <p>Can use a paintbrush with control to paint a range of different shapes and details without going over the outlines.</p> <p>Can make detailed shapes and forms using clay. I have control with tools to make different marks in the clay's surface and can smooth areas out well.</p> <p>Can add clay pieces to the main body of my model for extra detail using score-and-slip and when these are fired in the kiln they don't fall off.</p> <p>Can follow instruction and show personal elements.</p> <p>Can include your own resources which are gathered independently.</p> <p>Can show an understanding of the work of the selected artists in the artwork.</p>

Computing

Key Concepts taught and assessed in Year 7 at IA2:

- Microbit programming

Emerging	Developing	Securing	Mastering
<p>Know how to run the script in the simulator or on the BBC Micro Bit.</p> <p>Be able to do the following on the LED screen:</p> <ul style="list-style-type: none"> -turn on/off LED lights -show a number one digit at a time. -show a string one character at a time. -display an image. 	<p>Be able to do the following on the LED screen:</p> <ul style="list-style-type: none"> -show a series of images. -turn on/off a LED light using x, y coordinates. -repeat code in the background forever. <p>Use an event handler that will execute whenever an input button is pressed.</p> <p>Declare and assign variables.</p>	<p>Run code depending on whether a condition is true or not.</p> <p>Repeat code a fixed number of times.</p> <p>Use code to return a random number.</p> <p>Repeat code while a condition is true.</p> <p>Use variable and relational operators within a loop to govern termination.</p>	<p>Make appropriate improvements to solutions based on feedback received and comment on the success of the solution.</p>

Drama

Key Concepts taught and assessed in Year 7 at IA2:

1. Characterisation
2. Vocal Control
3. Physicality

Emerging	Developing	Securing	Mastering
<p>Characterisation - When performing your role, you laugh on stage and seem to lose control of your character on stage.</p> <p>Vocal control - Vocal delivery is often inappropriate and inconsistent. There is no control of vocal techniques.</p> <p>Physicality - On stage you are very nervous and cannot present the style or genre which you have explored</p>	<p>Characterisation - On stage you are unable to stay in role and perform without losing focus.</p> <p>Vocal control - Vocal delivery is appropriate but inconsistent at times.</p> <p>Physicality - You have energy and drive within your performance</p>	<p>Characterisation - You may be able to sustain your role; however, you come out of character easily and are unable to sustain your role on stage.</p> <p>Vocal control - There is a secure use of vocal tone, pace, pitch and volume.</p> <p>Physicality - There is a secure use of gesture, expressions and use of space. You can control your character on stage with</p>	<p>Characterisation - Pupils will be able showcase a clear character on stage.</p> <p>Vocal control - Students are able to demonstrate an assured use of pace, pitch, projection and tone.</p> <p>Physicality - Movement is engaging, dynamic and skilful throughout. On stage your performance is engaging and energetic</p>

English - Reading

Key Concepts taught and assessed in Year 7 at IA2:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1) Infer information about a character 2) Using evidence to secure inferences 3) Explaining how the evidence creates a particular impression 4) Considering multiple meanings/effects through single word analysis | <ol style="list-style-type: none"> 5) Clear academic writing |
|---|---|

Emerging	Developing	Securing	Mastering
<ul style="list-style-type: none"> • I can express an opinion about a character. Most of the time this will be clear. • I can choose a quote to back up my point of view, but it may not always be accurate. • I am beginning to explain why my quotation proves my point, but it is not always clear what I mean. • I can use simple connectives to evaluate the statement. • I use quotation marks for quotes. • I can spell with reasonable accuracy. • I tend to use simple vocabulary. • My sentence structures are generally simple and repetitive in each paragraph. 	<ul style="list-style-type: none"> • I can clearly express what I have inferred about a character. • My choice of quote is accurate but not yet precise (single word choice). • I can make a clear and simple explanation of why I chose my quote. I may use a connective, e.g. because. • I am beginning to use more sophisticated connectives to evaluate (e.g. Furthermore, In contrast). • I punctuate my sentences reasonably well. I may have one or two errors (e.g. comma splicing). • I can spell simple words accurately and attempt more complex spellings, some of which will be accurate. • I am beginning to use more complex word choice. • My sentence structures will be beginning to more varied and independent. Generally, they will be clear. 	<ul style="list-style-type: none"> • I can make an accurate judgement inference of a character. • My quote choice is precise and narrowed to single words where appropriate. • I am developing my explanation by adding a second justification (e.g. In particular/More specifically/Moreover). • I can use sophisticated connectives to appreciate more than one idea (e.g. partially/somewhat agree). • I punctuate my sentences clearly and accurately. • I can spell accurately with only one or two errors on more complex vocabulary. • I can use complex word choice, though perhaps not always accurately. • My sentence structures are written independently. They are clear and vary in complexity. I may have one or two inaccuracies. 	<ul style="list-style-type: none"> • I can offer more complex ideas by considering multiple meanings. • I use precise single words to evidence my points, and may include a second quotation to support my idea. • I can confidently consider the connotations or second effect of language. • I use tentative and sophisticated language to evaluate different interpretations (Some may argue/perhaps/With this in mind/Nevertheless/) • I punctuate accurately and am beginning to use more ambitious punctuation (semi colons, dashes, colons, questions used rhetorically). • I can spell accurately, including complex vocabulary. • I use well-placed and sophisticated vocabulary. • My sentence structures are confident, accurate and vary in complexity. I sound confident and fluent.

English - Writing

Key Concepts taught and assessed in Year 7 at IA2:

1. Planning and manipulating the structure of a story to create an effect
2. Adding detail through figurative language and ambitious word choice
3. Varying sentence structure for effect
4. Including a range of punctuation for accuracy and effect.

Emerging	Developing	Securing	Mastering
<ul style="list-style-type: none"> • I can begin a story by describing character and setting • I can include tense/exciting moments to interest the reader • I can sometimes use a variety of words to avoid sounding repetitive • I can sometimes use figurative language but not always effectively • I sometimes use words to interest the reader • I can spell and punctuate with reasonable accuracy, including apostrophes • I sometimes use a variety of sentence types accurately • I use paragraphs in my writing to signal a change in time, topic, place or speaker. 	<ul style="list-style-type: none"> • My story's opening shows signs of trying to engage the reader but may not be entirely successful • I can write an effective climax which may excite the reader • I can use a range of vocabulary which is sometimes chosen to create specific effects • I sometimes include figurative language to enhance my descriptions • My vocabulary choices are often interesting • I can spell and punctuate with considerable accuracy, including apostrophes • I use a variety of sentence types, and structures, accurately • I experiment with varied paragraph lengths for effect 	<ul style="list-style-type: none"> • I can use the first part of my story to engage the reader immediately • I can effectively build tension in order to heighten the impact of my story's climax • I can use a wide range of carefully chosen vocabulary to create specific effects • I use thoughtfully written figurative language which enhances my descriptions • My vocabulary choices are always well-chosen and interesting • I can spell and punctuate with consistent accuracy, including apostrophes • I use a variety of sentence types, structures and lengths accurately, including minor sentences • My effective paragraphing adds to the meaning of my story 	<ul style="list-style-type: none"> • A creative structure which may break away from Freytag's Pyramid in order to create specific effects. • A colourful range of imagery, vocabulary and punctuation contributing to a wholly engaging narrative. • Confident and creative handling of sentence structure to affect meaning and create and sustain interest. • (Students will be able to evidence all of the securing criteria and elements of the criteria above).

French

Key Concepts taught and assessed in Year 7 at IA2:

1. Pronunciation of key vocabulary
2. Recognising cognates and false friends
3. Adopting strategies for learning new vocabulary
4. Using a variety of nouns, adjectives, verbs
5. Using basic Target Language phrases

Emerging	Developing	Securing	Mastering
<ul style="list-style-type: none"> • Some common words pronounced correctly but need a lot of support with new words. Listening/transcribing pose great challenge. • Adjectival agreement rules are not understood. • Spelling inconsistent • No understanding of the partitive article formation, other than its meaning. • Can ask simple short questions to find out opinions of others but may lack the confidence to do so. • Short simple opinions expressed, although repetitive use of language. • Unable to react to other people’s opinions. • Most verb forms are incorrect & may be over-repetitive in choice of 1st person verb. Sentences often make little sense, due to wrong verb having been used. • Cognates used when adapting model sentences. May not copy words correctly from resources consulted. • Poor literacy in English prevents understanding of word categories, making the task in French a major challenge. • Give up easily when unfamiliar language is encountered & in need of support & encouragement to translate key words. • Struggle to read short passages in the TL, so need this broken down sentence by sentence. Can identify a few key words in each sentence, but may struggle with 	<ul style="list-style-type: none"> • Sometimes need reminding to apply phonic knowledge in order to pronounce words correctly. Support needed with phonics, when listening/transcribing. • Able to recall a few adjectives yet still in need of support when applying adjectival agreement rules. • Spelling of familiar words accurate but less accurate with unfamiliar words • The partitive article is used but support is needed. • Need support to ask other people’s opinions in full sentences. • Able to give simple opinions but need prompting to extend sentences. Rely upon a limited range of positive & negative adjectives. • May not have the confidence to agree/disagree with others. Cannot then continue with own opinion to support such expression. • Most comfortable with 1st person regular –er verbs, avoir & être. • Rely upon model sentences to adapt as specified by teacher. Need to rely upon resources. • Some word types (mainly adjectives) can be categorised. • Unfamiliar language stifles coherent translation into English, although parts of the sentence are recognisable. 	<ul style="list-style-type: none"> • Often apply knowledge of phonics to help pronounce most words correctly & decipher words when listening/transcribing. • Articulates adjectival agreement yet does not consistently apply these accurately in 1st & 3rd person creative descriptions. • Spelling generally accurate. • Show some understanding of the partitive article. • Ask others simple questions to find out likes/dislikes. • Give opinions & include a bank of connectives to extend sentences. Able to give reasons using positive & negative adjectives. • Beginning to agree & disagree with other people’s viewpoints. • Regular –er verbs, avoir & être used in 1st, 2nd & 3rd person, although not always accurate. • Uses resources to substitute words, in order to change the meaning of sentences. • Able to categorise most word types & identify some sequencing words. • Translate into English, although this does not always sound natural. Able to make an educated guess when faced with unfamiliar vocabulary, with some degree of success. • Beginning to gain confidence when reading for gist. Need reminding of strategies learnt in previous lessons, when faced with longer, 	<ul style="list-style-type: none"> • Regularly apply knowledge of phonics to help pronounce most words correctly & decipher words when listening/ transcribing/doing dictation. • Adjectival agreement well-understood & students apply these accurately in 1st & 3rd person creative descriptions. • Spelling secure. • Able to understand which partitive article to use. • Demonstrate the ability to ask questions about other people’s opinions. • Express opinions & include different connectives to extend sentences with more creative reasons, using a range of positive and negative adjectives. • Agree & disagree with other people’s viewpoints with confidence. • Regular –er verbs, avoir & être used with accuracy in 1st, 2nd & 3rd person forms. • Substitute words, drawing on vocabulary from prior learning, in order to change the meaning of sentences. • Categorise word types with confidence & identify sequencing words, with a view to building these into own work. • Consider the context of a sentence, in order to translate into English confidently & accurately. Able to make a successful educated guess when faced with unfamiliar vocabulary.

processing, for gist to be fully understood.

- Scaffolding required in creating short simple sentences. Errors sometimes impede clear communication.

- Respond better to reading shorter passages & need support in breaking down vocabulary meaning, in order to extract the gist.
- Can create short, simple sentences in 1st person, although no real attention given to accuracy.

more challenging texts.

- Able to create sentences, although more confident in using 1st & 3rd person of regular –er verbs, faire & être. Attempts to use 2nd person & plural forms when prompted.

- Summarise clearly when reading for gist. Employ strategies learnt in previous lessons, in order to understand longer & more challenging texts.
- Create own sentences, which may include 1st, 2nd & 3rd person forms, as well as plural forms of regular –er verbs, faire & être.

Geography

Key Concepts taught and assessed in Year 7 at IA2:

1. Building place knowledge
2. Developing a sense of place

Emerging	Developing	Securing	Mastering
Can identify features of places from photos/ videos/ sound clips. Can locate key places of interest around the world.	Can describe places using photo and written evidence. Can describe how places change and begin to say why.	Can suggest reasons for the features of places and explain problems associated with them. Can explain why places change and begin to make links to wider geographical concepts.	Can analyse reasons for change in places based on photo/ map/ video evidence. Can evaluate the scale and significance of changing places, linking to wider geographical concepts.

German

Key Concepts taught and assessed in Year 7 at IA2:

1. Pronunciation of key vocabulary
2. Recognising cognates and false friends
3. Adopting strategies for learning new vocabulary
4. Using a variety of nouns, adjectives, verbs
5. Using basic Target Language phrases

Emerging	Developing	Securing	Mastering
<ul style="list-style-type: none"> • Still in need of support from Vocabulary booklet/exercise book, in order to ask questions. • Spelling inconsistent • Not confident in use of gern/nicht gern in sentences without teacher support. Repetition of basic positive & negative adjectives. • Repetition of some time phrases. Does not understand the word order rule & the effect that time has on the sentence. • Struggle to read short passages in the TL, so need this broken down sentence by sentence. Can identify a few key words in each sentence, but may struggle with processing, for gist to be fully understood. • Able to use modal verb in a sentence, but translates literally, so infinitive appears either directly after the verb, or is forgotten entirely. Teacher support needed. • Does not understand what an irregular verb is. Able to only use a small amount of common 1st person irregular verbs. • Short simple opinions expressed, although repetitive use of language. 	<ul style="list-style-type: none"> • Can ask simple questions but not necessarily answer them all accurately. • Spelling of familiar words accurate but less accurate with unfamiliar words • gern/nicht gern included in sentences, although the verb is often missing. May rely mostly upon a small bank of positive & negative adjectives. • Able to include a few time phrases in sentences, although many errors occur with word order. Unsure of correct position of time phrase. • Respond better to reading shorter passages & need support in breaking down vocabulary meaning, in order to extract the gist. • 1st+ / 3rd person used with modal verb, although infinitive is either not well-formed, or is in the wrong position in the phrase. • Able to give simple opinions but need prompting to extend sentences. Rely upon a limited range of positive & negative adjectives. 	<ul style="list-style-type: none"> • Able to ask questions & form full sentence answers, yet some support still needed to ensure accuracy. • Spelling generally accurate. • gern/nicht gern included in full sentences containing positive & negative adjectives, although word order is not always accurate. • Time phrases are used in sentences, although there may be the occasional error in word order. Once reminded, can generally rectify this. • Beginning to gain confidence when reading for gist. Need reminding of prediction strategies learnt in previous lessons, when faced with longer, more challenging texts. • 1st & 3rd person used with modal verb & understand infinitive must be at the end of the phrase. • Give opinions & include a bank of connectives to extend sentences. Able to give reasons using positive & negative adjectives. 	<ul style="list-style-type: none"> • Confidently ask questions in full sentences & able to answer questions <u>with spontaneity</u>. • Spelling secure. • gern/nicht gern word order well-understood & able to form full sentences containing positive & negative adjectives of choice. • The effect of time phrases on word order is recognised & well-applied. Able to explain where time and verb should feature in sentences. • Employ prediction strategies learnt in previous lessons, in order to understand longer & more challenging texts. • Articulates clearly the effect of a modal verb on word order & able to give examples of this in full sentences, using different pronouns. • Express opinions & include different connectives to extend sentences with more creative reasons, using a range of positive and negative adjectives.

History

Key Concepts taught and assessed in Year 7 at IA2:

1. Explain knowledge of past events in some detail.
2. Analyse the causes and consequences of past events.
3. Evaluate the causes and consequences of past events, judging relative importance.
4. Communicate ideas effectively

Emerging	Developing	Securing	Mastering
<p>Shows basic understanding of the past by describing / explaining Henry VIII and his actions / personality.</p> <p>In extended writing the answer is clear and neat, uses the correct phrases and makes some clear attempt to answer the question.</p>	<p>Explains different interpretations of the past by explaining the content of sources</p> <p>to show how Henry VIII can be seen as a hero and/or a villain.</p> <p>Begins to produce structured extended writing, using appropriate dates and terms, paragraphs and good spelling of historical words.</p>	<p>Analyses different interpretations of the past by explaining why some sources show Henry VIII as a hero and some show he was a villain, considering provenance. Begins to give an opinion through evaluating the sources.</p> <p>Effectively selects and uses information to support structured work with an introduction and conclusion, using sources to back up own ideas.</p>	<p>Evaluates different interpretations of the past, considering provenance and context (own knowledge), and makes supported judgements on the validity of interpretations. Makes links between sources to fully analyse and evaluate interpretations and uses sources and own knowledge to support conclusions.</p> <p>Relevant information is effectively selected and organised to produce well-structured work with an introduction, conclusion and clear point to each paragraph.</p>

Maths

Key Concepts taught and assessed in Year 7 at IA2:

1. Mathematical fluency
2. Problem solving
3. Reasoning
4. Modelling
5. Explaining and investigating
6. Apply knowledge in unfamiliar situations

Emerging	Developing	Securing	Mastering
<ul style="list-style-type: none"> • Simplify fractions and identify equivalent fractions. • Can simplify fractions by shading parts of a shape. • Add and subtract fractions with common denominators • Construct an appropriate diagram that displays your data. • Summarise the information shown in a data diagram. • Compare two sets of data using diagrams • Understand how letters can be used to represent numbers. • Be able to collect like terms involving positive numbers • Calculate a temperature rise and fall across 0 • Order negative and positive integers using a temperature scale. 	<ul style="list-style-type: none"> • Order fractions by writing them with a common denominator or by converting them to decimals. • Add and subtract fractions by writing them with common denominators • Compare different data diagrams. Discuss problems interpreting data in different tables, graphs, charts and diagrams. • Can construct pictograms, bar charts and line graphs • Express an unknown value using algebra. • Know the meanings of the words term, expression and equation • Compare and order numbers including negative numbers. • Add and subtract positive and negative integers in context • Learn and repeat rules for multiplying and dividing integers. • Turn a worded question into an algebraic formula – use letters of symbols to represent unknown numbers 	<ul style="list-style-type: none"> • Know that a recurring decimal is a fraction. • Use fraction notation to describe parts of shapes and to express a smaller whole number as a fraction of a larger one. • Recall equivalent fractions. • Understand addition and subtraction of fractions and integers. • Begin to distinguish the different roles played by letter symbols in equations, formulae and functions. • Know that algebraic operations follow the same conventions and order as arithmetic operations • Simplify or transform algebraic expressions by taking out single term common factors • Compare and order numbers including negative numbers and decimals. • Understand and confidently use rules for multiplying, dividing, adding and subtracting negative integers. 	<ul style="list-style-type: none"> • Start to simplify fractions involving algebra. • Analyse the data in a diagram and use it to draw conclusions. • Understand how to present information concisely. Can suggest design improvements • Confidently use letter symbols and explain what an expression means. • Use index notation for small positive integer powers • Confidently applying rules for adding and subtracting negative numbers. • Reinforce BIDMAS using negative numbers. Confidently work with negative numbers in a range of contexts.

Music

Key Concepts taught and assessed in Year 7 at IA2:

1. Organisation of sounds
2. Performance as an individual

Emerging	Developing	Securing	Mastering
<p>Can recognise how sounds have been organised</p> <p>Can perform simple pieces in time</p> <p>Can perform as part of a group.</p> <p>Can think of ways to improve your work</p> <p>Can organise sounds to create a simple piece of music</p> <p>Can name the Elements of Music</p>	<p>Have experimented with sounds to make your own composition</p> <p>Can sing in tune</p> <p>Can perform simple parts with the correct rhythm</p> <p>Can describe how the Elements of Music have been used to make music expressive</p>	<p>Can compose music that matches a specific brief.</p> <p>Can think of ways to improve your work</p> <p>Can perform a tune by ear or from simple notation</p> <p>Perform as part of a group, showing that you are listening to others and know how your part fits</p> <p>Can develop your ideas</p>	<p>Can name and try out musical devices</p> <p>Can perform longer tunes from memory, play music that is written down in different styles</p> <p>Can perform in a group and understand your role</p> <p>Can improvise tunes or rhythms effectively.</p>

PE

Key Concepts taught and assessed in Year 7 at IA2:

1. Understanding the importance of warming up

Emerging	Developing	Securing	Mastering
Identify all aspects of a warm up. Some aspects of skill based components of fitness demonstrated. Some indecision resulting in undesirable outcomes. No or little commitment to extra-curricular sport.	Identify all aspects of a warm up and reasons for warming up. Skill based components of fitness demonstrated across a range of sports. Decision making is usually correct although may not be made quick enough. Inconsistent attendance at extra-curricular sporting opportunities.	Lead a warm up for a small group. Explain the psychological and physiological reasons for warming up. Precision and accuracy when performing skill based components of fitness across a range of sports. Decision making is clear resulting in desired outcome with fewer errors. Consistent attendance at extra-curricular sporting opportunities.	Lead a whole class warm up. Evaluate the differences between warm ups in specific sports. Advanced levels of precision and accuracy when performing skill based components of fitness across a range of sports. Decision making is of a high level. A range of options are considered before the correct option is executed on a regular basis. Attends a wide range of extra-curricular sporting opportunities.

Religious Studies

Key Concepts taught and assessed in Year 7 at IA2:

- 'The World is so intricate and complicated only God could have designed it.'

Emerging	Developing	Securing	Mastering
I can describe the Christian story of creation and the scientific view.	I can explain how the Christian story of creation and the scientific view link to the statement	I can evaluate the strengths and weaknesses of the Christian Creation story and the scientific view.	I can consider a range of reasons and draw a comprehensive conclusion.

Science – Biology

Key Concepts taught and assessed in Year 7 at IA2:

1. Analyse: Analyse patterns, discuss limitations, draw conclusions, present data
2. Communicate: Communicate ideas, construct explanations, critique claims, justify opinions
3. Enquire: Collect data, devise questions, plan variables, test hypothesis
4. Solve: Estimate risks, examine consequences, review theories, interrogate sources

Emerging	Developing	Securing	Mastering
<p>Label a plant and animal cell. Remember the functions of the parts of a cell. State the similarities and differences between plant and animal cells.</p>	<p>Describe the role of diffusion in the movement of substances. Describe what a unicellular organism is Identify structures such as cells, tissues, organs or organ systems. State the functions of the skeleton. How muscles and joints work</p>	<p>Explain the importance of microscopes to the understanding of cell biology. Apply knowledge of cell structure to recognise structures in unfamiliar cells. Describe the link between surface area and rate of diffusion. Link cell structures to their function in survival. Order structures to show how living organisms are organised. Explain the functions of the skeleton and how antagonistic muscles provide movement. Label a synovial joint and explain the function of each part.</p>	<p>Analyse how advances in microscopes have allowed scientists to discover more about cells. Evaluate models of cells. Explain how the structure of specialised cells relates to their function. Explain the importance of diffusion in cell processes. Synthesise knowledge of diffusion in cells with diffusion and the particle model in physics and chemistry</p>

Science – Chemistry

Key Concepts taught and assessed in Year 7 at IA2:

1. Analyse: Analyse patterns, discuss limitations, draw conclusions, present data
2. Communicate: Communicate ideas, construct explanations, critique claims, justify opinions
3. Enquire: Collect data, devise questions, plan variables, test hypothesis
4. Solve: Estimate risks, examine consequences, review theories, interrogate sources

Emerging	Developing	Securing	Mastering
Understand that there are three states of matter. Recall the physical properties of the three states of matter.	Recognise the particle diagram for the three states of matter, a pure chemical and a mixture. Recall the main separating techniques and describe what they can be used to separate.	Explain the difference between the three states of matter in terms of density, movement and properties. Draw the particle diagrams for the three states of matter, a pure chemical and a mixture. Outline a brief method for each of the main separating techniques. Explain how a mixture could be separated.	Explain the properties of the three states of matter using the particle model. Draw the particles diagrams for a mixture and a pure chemical in the three states of matter and for the state changes. Use the particle model to explain how each main separating technique works. Evaluate then justify the best separating technique to separate a particular mixture.

Science - Physics

Key Concepts taught and assessed in Year 7 at IA2:

1. Analyse: Analyse patterns, discuss limitations, draw conclusions, present data
2. Communicate: Communicate ideas, construct explanations, critique claims, justify opinions
3. Enquire: Collect data, devise questions, plan variables, test hypothesis
4. Solve: Estimate risks, examine consequences, review theories, interrogate sources

Emerging	Developing	Securing	Mastering
<p>With support, use the speed equation to calculate speed with simple units.</p> <p>Represent forces as single arrows.</p> <p>State that weight is a force caused by 'gravity' and varies from planet to planet.</p>	<p>Describe the motion of an object from a single-phase distance–time graph.</p> <p>Make simple measurements of density.</p> <p>Describe the relationship between the force acting on a spring and its length in simple terms.</p> <p>State that water and air resistance are frictional forces which oppose motion.</p> <p>Accurately draw a range of diagrams showing scaled forces acting on bodies.</p>	<p>Calculate the speed of objects using the equation and a range of units.</p> <p>Describe the changes in motion of objects by interpreting multi-phase graphs.</p> <p>Use the concept of relative speed in description of motion.</p> <p>Correctly represent forces between objects with pairs of force arrows.</p> <p>Carefully select forcemeters of appropriate range and precision to measure a range of forces.</p> <p>Calculate the weights of objects using the masses and gravitational field strength.</p> <p>Outline the gravitational forces acting between the Sun, Earth and Moon.</p> <p>Calculate density appropriately from experimental data.</p> <p>Describe the behaviour of springs in terms of Hooke's Law and proportionality.</p> <p>Describe factors that will increase resistance such as increase in speed or 'thickness' of fluid.</p>	<p>Rearrange the speed equation finding distance travelled or time taken</p> <p>Describe the movement of objects that are accelerating or decelerating.</p> <p>Extract information from graphs to calculate speed.</p> <p>Use scale diagrams to represent pairs of forces acting between objects.</p> <p>Use rearrangements of the weight equation to calculate masses or the gravitational field strength.</p> <p>Describe gravitational attraction between bodies in terms of a pair of equal and opposite non-contact forces.</p> <p>Apply Hooke's Law by predicting the expected extension of a spring when a load is applied using a graph or the spring constant.</p> <p>Use the concepts of balanced and unbalanced forces (weight and drag) to describe motion through a fluid.</p>

Technology – Food Modules

Key Concepts taught and assessed in Year 7 at IA2:

1. Developing cooking skills
2. The importance of nutrition

Emerging	Developing	Securing	Mastering
<p>Students can identify equipment and name cooking techniques for the products that they are making.</p> <p>Students can name some of the 8 Healthy Eating Tips.</p>	<p>Students are able to use different parts of the cooker and demonstrate the bridge and claw and safe meat handling skills.</p> <p>Students can name all of the 8 Healthy Eating Tips and make some links with the Eat Well Guide.</p>	<p>Students are able to use the correct vocabulary to confidently explain, and where appropriate give reasons, what has been cooked (methods, techniques and equipment).</p> <p>Students can start to make links with ingredients, food groups and nutrients and their function.</p>	<p>Students work totally independently, able to solve problems and produce food consistently to a good standard.</p> <p>Students are able to make appropriate links about the Eat Well Guide, the Healthy Eating Tips and ingredients in the food that they have made.</p>

Technology – Resistant Materials Modules

Key Concepts taught and assessed in Year 7 at IA2:

1. Developing tool skills
2. Accuracy and precision
3. Awareness of end user needs
4. Evaluating product situations and outcomes

Emerging	Developing	Securing	Mastering
<p>I can recognise some of the tools that I have used.</p> <p>I can recognise some of the materials that I have been using.</p> <p>I can recognise when prompted a process that I have used in my practical work like, soldering, drilling.</p> <p>My work is sometimes accurate but needs improving.</p> <p>I sometimes forget about safety and need to be reminded.</p>	<p>I can recognise and name some of the tools that I use.</p> <p>I can correctly name some of the materials that I use.</p> <p>I can recognise and name some of the processes that I use when making my product: Soldering, Drilling, Finishing.</p> <p>My work is mostly accurate.</p> <p>I work safely wearing goggles when using machine tools and soldering, obeying Health & Safety rules in the workshop.</p>	<p>I can select the correct tools and equipment that I use in my practical work and can explain their function.</p> <p>I make good choices when I select the materials for my practical work.</p> <p>I can explain the best process to use when making my products and justify why I have chosen them for that job.</p> <p>I am accurate in my work.</p> <p>I always work safely wearing goggles when using machine tools, obeying Health & Safety rules in the workshop.</p>	<p>I can select the correct tools for working with different materials and I can justify my choice tools and the materials I am using them on.</p> <p>I justify the reasons for my choice of materials. Taking into consideration their properties.</p> <p>I can correctly choose from a variety of manufacturing processes and I can justify why I have chosen it. I can use CAD/CAM to expand my work.</p> <p>I am accurate and precise and pay attention to detail when I work. Making corrections to ensure quality.</p> <p>I always work safely when in a workshop and can demonstrate this to others.</p>