Year 10 Curriculum Evening

Rebecca Richardson

Pastoral Leader

Facts

In the 10 minutes or so this presentation will take -

- You will blink 300 times
- Pump 59 litres of blood through your heart
- Breathe approximately 120 times
- Grow 0.0023 millimetres of hair on your head
- Sweat enough to lose 4 grams of water from your body

Time

Before we know it time has gone.

Time

- Don’t spend time on things that aren’t really important
- Spend time on things that matter

What Matters ?

- How your child chooses to SPEND the next 2 years will determine their future.
- In less than 2 years time they will be collecting exam results.
- I asked in a recent assembly, ‘Do you want that day to be a day of celebration or a day of disappointment?’
- Pastoral structure.
- L10.

Focus for the year

1. Back to basics.

2. Developing character.

Back to Basics

- Attendance
- Punctuality
- Uniform

Character Education

- What will make you stand out from the crowd?
- Being a nice person
- Being able to communicate
- Being resilient
- Being passionate
- Being a deeper thinker
- Being self aware

KS4 Pastoral Contacts

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Surviving Year 10

Cathy Bach

Attendance

- There is a strong link between excellent school attendance and achieving excellent results for pupils. Research has established that for every 10% lost in school attendance a full grade could be lost at GCSE!
- Good school attendance also shows future employers that a young person is reliable, more likely to achieve well and play a positive role in their community.

"No worries, I'll just cram it at the end"

The Year 10 Curriculum

- Core subjects : English, Maths, Science, Faith and Ethics
- Option subjects : 4 choices made in year 9
- Non examined subjects: core PE

Year 10..... A mixed bag

- All subjects are linear with exams or certification at the end of year 11
- Some GCSE courses have 0, 25 or 60 % controlled assessment
- BTEC courses are 100% ongoing assessment
- English Language, English Literature and Maths are graded 9 to 1.

Grades!

- A*-G for most subjects. 9 to 1 for English and Maths

Maths, Eng lang, Eng lit	Points	Other subjects
9	9	
	8.5	A*
8	8	
7	7	A
6	6	
	5.5	B
5	5	
4	4	C
3	3	D
2	2	E
	1.5	F
1	1	G

Controlled Assessment

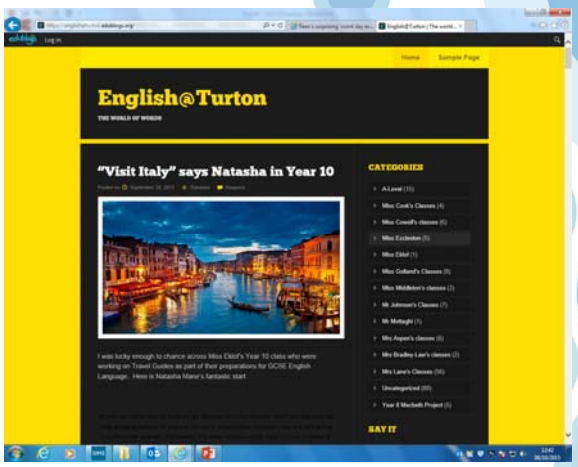
- Pieces set throughout year 10 and 11
- The same piece can have low, medium and high control segments.

English

Alice Lane

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

The English Blog



www.englishatturton.edublogs.org

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

Assessment in English

English Language – WJEC
- 100% exam
- 50% reading skills, 50% writing skills

English Literature - AQA
- 100% exam
- Closed book (learn quotes off by heart)

Termly Assesments
- Improve memory skills
- Tracking progress

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	KS3 Of Mice and Men	KS3 Literature - Romeo & Juliet – KS3	Creative writing (Descriptive & narrative)	Modern drama/prose 	Reading non-fiction 	Speaking & listening (Living Newspaper Project)
Year 10	Writing non-fiction	19th century prose 	19th century prose Reading prose	Poetry anthology	REVISION *Year 10 exams*	Modern drama/prose revision 
Year 11	Unseen poetry	Reading and writing non-fiction revision	Shakespeare	Reading and writing prose revision	REVISION	

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

What Literature texts do we do?

- A Christmas Carol (ISBN: 9781407143644)
- An Inspector Calls (ISBN: 9780141185354)
- Dr. Jekyll and Mr. Hyde (ISBN: 9781853260612)

What do Language questions look like?

3. How does Professor Stephen Harris try to prove that the urban fox has found ‘a place in our hearts’?
Track through the text and think about:

- what he says;
- how he says it.

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

How can you help?

1. Encourage good attendance
2. Read in front of pupils
3. Encourage pupils to read
4. Take them to cultural events
5. Show pupils useful websites
6. Check their planner/phone for homework
7. Correct basic literacy
8. During revision times get pupils to be active
9. Set up a good place to work
10. Talk to us

Maths

Rachel Baguley

Helping your child get the best from their GCSE

A Turton Guide to Year 10 & 11 Mathematics …

The dictionary is the only place that success comes before work!

- The GCSE curriculum covers six areas of mathematics
  - Number
  - Ratio
  - Algebra
  - Geometry
  - Statistics
  - Probability

- Assessment Structure:

- 100% exam
- 3 exams – 1 non-calculator & 2 calculator
- Foundation and Higher Tier

GCSE Grading

Current GCSE grade	New GCSE Points	New GCSE Grades
		9
A*	8.50	
		8
A	7.00	
		7
		6
B	5.50	
		5
C	4.00	4
D	3.00	3
E	2.00	2
F	1.50	
G	1.00	1

Higher

Foundation

Good Pass

Changes to subject content

- Skills no longer required
- Design a survey question and identify sources of bias
- Convert between metric and imperial units
- Draw and interpret frequency polygons and stem and leaf diagrams
- Solve equations using trial and improvement (no longer in Foundation Tier)

Changes to subject content

- Skills to be assessed at Foundation that were Higher only
- Calculate exactly with multiples of π
- Use standard form
- Round to any number of significant figures (currently 1 s.f. only)
- Expand double brackets
- Factorise quadratics including the difference of two squares
- Solve quadratic equations by factorising
- Know the difference between an equation and identity
- Use y = mx + c to identify parallel lines
- Sketch quadratic, cubic and reciprocal functions
- Derive simultaneous equations from real-life situations
- Solve linear simultaneous equations algebraically and graphically
- Perform calculations with density, mass and volume
- Solve problems involving percentage change and reverse percentages
- Use direct and inverse proportion graphically and algebraically
- Solve problems involving compound interest
- Find corresponding lengths in similar shapes
- Use the congruence criteria for triangles (SSS, SAS, ASA, RHS)
- Enlarge shapes with fractional scale factors
- Find the areas and perimeters of compound shapes involving circles, and calculate arc lengths and areas of sectors
- Use the sin, cos and tan trigonometric ratios for right-angled triangles
- Use tree diagrams to solve probability questions
- Infer properties of a population from a sample, while knowing the limitations of sampling

Changes to subject content

- New skills assessed at Foundation and Higher
- Find the equation of a line through two points or through one point with given gradient
- Recognise and use sequences of triangular, square and cube numbers, Fibonacci type sequences, quadratic sequences and geometric sequences
- Calculate compound measures including pressure in numerical and algebraic contexts
- Express a multiplicative relationship between two quantities as a ratio or a fraction
- Write a ratio as a linear function
- Set up, solve and interpret growth and decay problems
- Use inequality notation to specify error intervals due to rounding
- Understand the ≠ symbol (not equal)
- Use the standard convention for labelling sides and angles of polygons
- Derive the sum of angles in a triangle
- Know the exact values of sin, cos and tan at key angles (0, 30, 45, 60, 90 degrees)
- Use Venn diagrams
- Consider outliers when calculating the range of a distribution
- Know that correlation does not imply causation

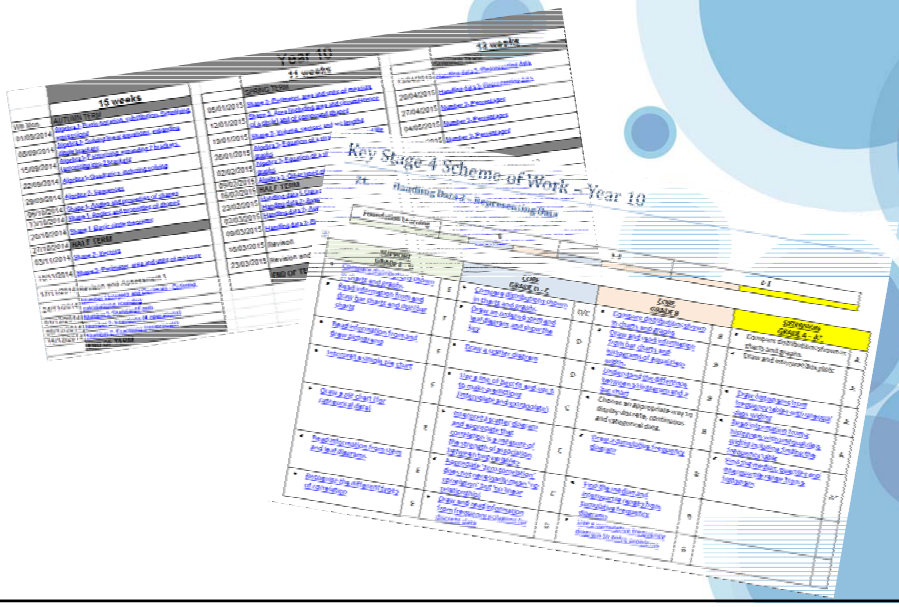
Changes to subject content

- New skills assessed at Higher only
- Recognise and use the equation of a circle centred at the origin*
- Find the equation of a tangent to a circle at a given point, using the fact that it is perpendicular to the radius
- Find approximate solutions using iteration (is this just trial & improvement?)
- Solve quadratic inequalities
- Find the nth term of a quadratic sequence
- Recognise and use geometric sequences where the common ratio may be a surd

Grading

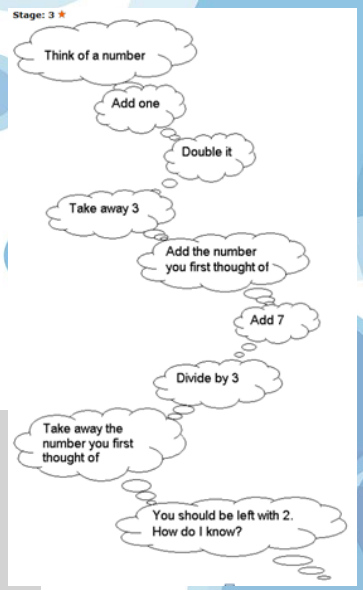
- Grades no longer apply to which topic is being tested
- Now the grades are applied to the complexity of the questions being asked
- Simpler topics asked in a complex way may now be classes as a higher grade than more difficult topics asked in a straight forward way
- We need to make sure we develop students Mathematical reasoning skills to a point where they can deal with these questions comfortably

Topics in Depth



Literacy in Maths?

Developing talk-for-learning



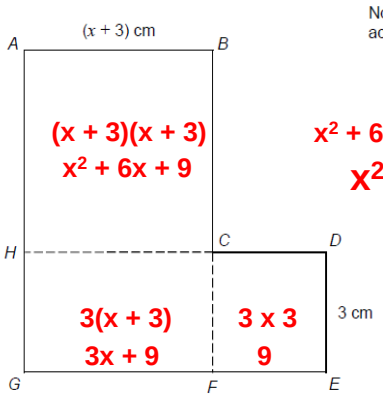
If X is the number you think of, you start with X
Then when you add 1, you get X + 1
When you double it, it turns into 2X + 2
When you take away 3, it turns into 2X -1
Adding the number you first thought of makes 3X -1
When you add 7 it turns into 3X + 6
When you divide by 3 it turns into 1X + 2
Then take away the number you first thought of (X) it leaves 2.

Exam Style Question

- On the next slide there is a question which has been taken from a new Foundation paper
- A slightly different question could have been asked in a less complex way. For example;
- Expand and simplify (x + 3)(x + 7)
- However, the question is testing a deeper understanding of the topic of expanding brackets

ABCH is a square.
HCFG is a rectangle.
CDEF is a square.

They are joined to make an L-shape.



x² + 6x + 9 + 3x + 9 + 9

x² + 9x + 27

Show that the total area of the L-shape, in cm², is $x^2 + 9x + 27$

[4 marks]

How you can support your child?

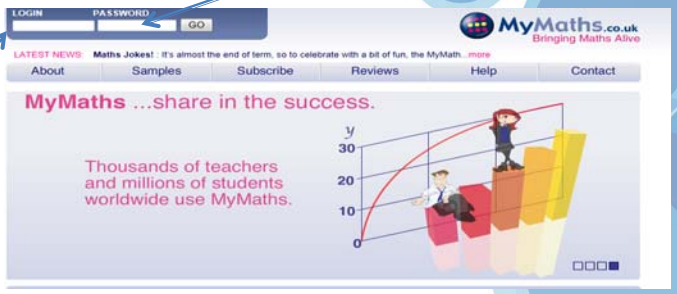
- Talk to them about their work/home learning – ask them to explain what they have done and how they have done it (talk-for-learning)
- Support them in there revision making sure they have a quiet space to work
- Encourage resilience by not giving up – reassure but let them use the methods they have learnt
- Ensure that your child brings the correct equipment to every lesson (pen, pencil, ruler, eraser and a CALCULATOR)
- www.mymaths.co.uk online lessons for extra support

Home Learning

- Generally, 1 or 2 pieces of homework a week
- Varied:
  - Learning; research; practice; modelling; developing; problem-solving; traditional methods; electronic
- www.mymaths.co.uk

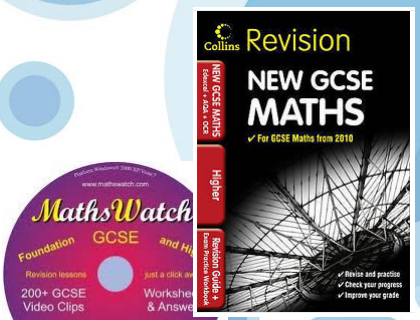
hexagon

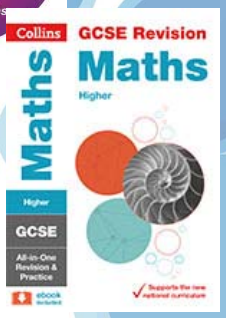
turton



Revision

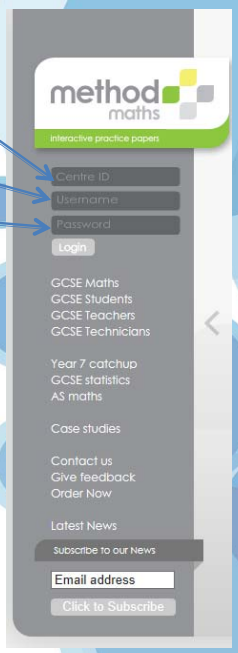
- The only way to revise Maths is to DO Maths.
- Your son/daughter will do much better spending 20 minutes doing Maths questions than spending 2 hours just reading a textbook.





Method Maths

turton
1764
Baguley



- **In order for students to access this website they need the information given below,**
- **Centre ID: turton**
- **Username: their school number without the zero e.g.: 01764 the username is 1764**
- **Password: the password is their surname but with a capital letter to start. e.g. Baguley**

“Education is not the learning of facts, but the training of the mind to think”

Contact Information.

- **If you have any questions please do not hesitate to contact me on:**

  Email: baguleyr@turton.uk.com

or Mr P Sexton (2nd in Mathematics)

Email: sextonp@turton.uk.com

Science

Jason Bach

Frequently Asked Questions:

- **Head of Science:**

  Jason Bach (bachj@turton.uk.com)

- **KS4 Co-ordinator:**

  Mark Smith (smithm@turton.uk.com)

Will students study all 3 Sciences?

- Yes!
- All the routes through Year 10 and Year 11 cover Biology, Chemistry and Physics in equal amounts.

Are all GCSE courses now examined terminally?

- Yes!
- The Core, Additional and Separate Science exams will be in May/ June 2016 with no GCSEs at the end of Year 10 (but there will be formal assessments).

How many GCSEs could I achieve?

- Depends!
- Most students will follow two GCSE courses two sets in each band will initially follow a three GCSE courses (with reassessment after the first formal assessment near Christmas of Year 10).

Does the tier of entry affect the grades obtainable?

- Yes!
- Higher Tier allows grades in the range D-A*
- Foundation Tier allows grades in the range of G-C (or exceptionally a grade B)
- Scores outside these ranges will be classed as a grade U

Does the Science set determine the tier of entry?

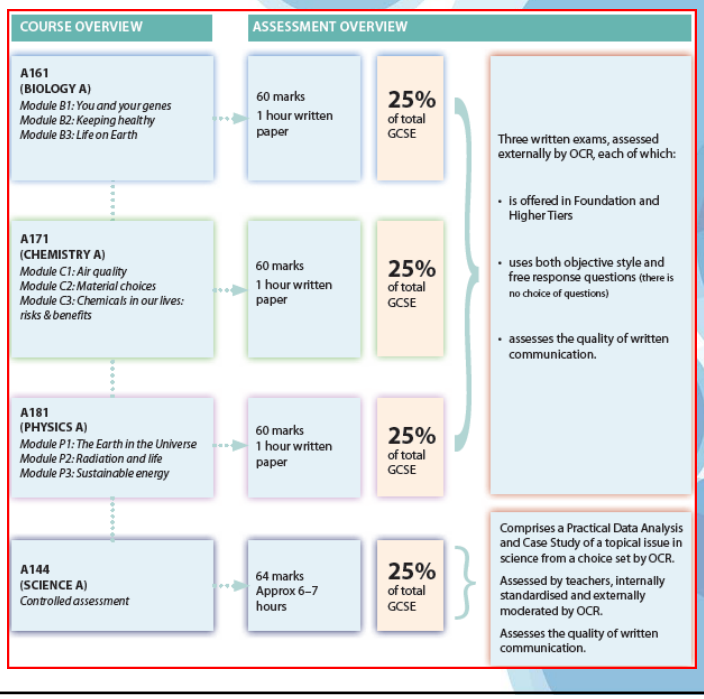
- Partly!
- Those in higher sets are more likely to do the Higher Tier.
- We judge each student on their chances of success within each tier irrespective of set.

How is GCSE Science assessed?

- 4 modular assessments per GCSE course
- 3 are one hour long externally assessed exams [worth 75% in total]
- 1 module is internally assessed Controlled Assessments [25%]

What does the Year 10 Science* involve?

*This is often known as 'Core Science'.



COURSE OVERVIEW	ASSESSMENT OVERVIEW		
A161 (BIOLOGY A) *Module B1: You and your genes* *Module B2: Keeping healthy* *Module B3: Life on Earth*	60 marks 1 hour written paper	25% of total GCSE	Three written exams, assessed externally by OCR, each of which: • is offered in Foundation and Higher Tiers • uses both objective style and free response questions (there is no choice of questions) • assesses the quality of written communication.
A171 (CHEMISTRY A) *Module C1: Air quality* *Module C2: Material choices* *Module C3: Chemicals in our lives: risks & benefits*	60 marks 1 hour written paper	25% of total GCSE	
A181 (PHYSICS A) *Module P1: The Earth in the Universe* *Module P2: Radiation and life* *Module P3: Sustainable energy*	60 marks 1 hour written paper	25% of total GCSE	
A144 (SCIENCE A) *Controlled assessment*	64 marks Approx 6–7 hours	25% of total GCSE	Comprises a Practical Data Analysis and Case Study of a topical issue in science from a choice set by OCR. Assessed by teachers, internally standardised and externally moderated by OCR. Assesses the quality of written communication.

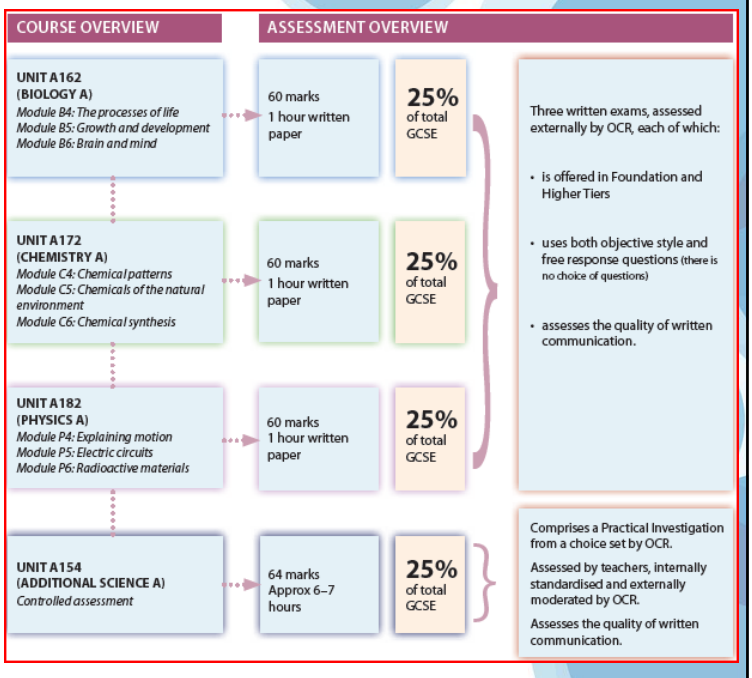
When will the assessments/ exams take place?

- The Controlled Assessments are spread throughout the year allowing two opportunities for both the case Study and the Data Analysis
- The exam dates are fixed by the exam board (OCR).

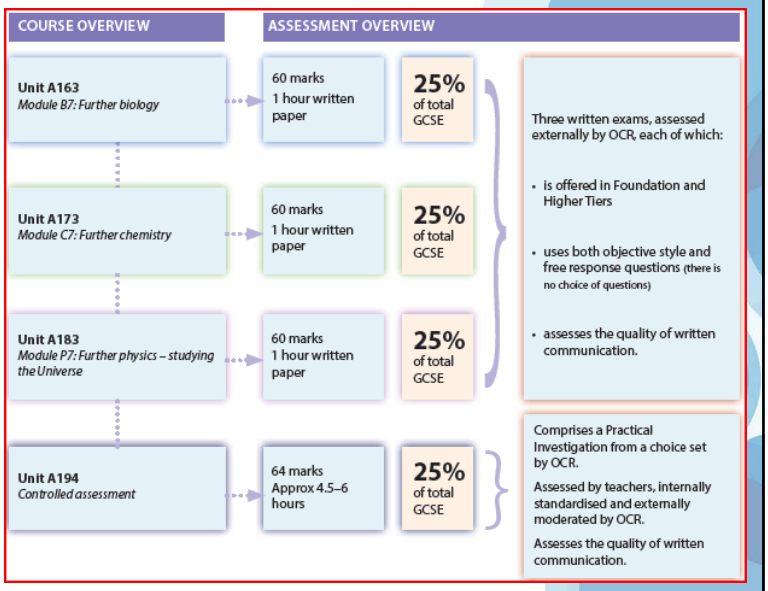
What does the Year 11 Science involve?

- Depends!
- Most students will follow a GCSE in Additional Science.
- Some will convert to the Separate Sciences by completing 3 extra units plus extra controlled assessments.

What is Additional Science?



Those following the Separate Sciences will study the following units in addition to the Core/ Additional Science.



Does the Core/ Additional route limit options in Sixth Form?

- **No!**
- **Not even for competitive courses like Medicine.**
- **Many schools no longer offer the Separate Sciences route.**

Why bother with the Separate Sciences?

- Enjoyment of Science.
- More content.
- Extra GCSE.

However…

- Very fast pace of lessons since there is no extra time allocated.
- Must be balanced against other commitments.

How can I support my child in their Science?

- Support the weekly homework.
- Encourage students to …
  - Produce their own revision notes.
  - Be active in their revision.
  - Be proactive with their learning.
- Internet access to…
  - the VLE (helpful documents, shared resources, simulations).
  - OCR website (Controlled assessment criteria, specifications, specimen papers).
  - Youtube and twitter.
- Good attendance of students.

Useful Resources:

Web based:

- Guide to controlled assessment
- Teachers handbook
- Specimen data analysis (teacher guide)
- Specimen case study (teacher guide)
- Core Science Specification; Additional Science; Further Additional
- Bitesize
- S-cool (Biology, Chemistry and Physics)

Other electronic help:

- VLE (normal school username and password)
- GCSE revision podcasts (you have to register first though!)

Book based:

- Revision guides are available in School.

Controlled Assessments:

- It's worth 25% of the GCSE marks
- An excellent way of boosting the GCSE grade
- Multiple opportunities to succeed

What does it involve?

- Two types of task:
  - Data Analysis
    - 4 lessons
  - Case Study
    - 5 lessons
- Overall we are setting aside two lots of two weeks of lessons to complete the tasks.

The Rules…Levels of Control

- Limited: Students complete work under limited supervision; this can include working away from the centre without direct supervision i.e. at home!
- High: Students work independently under formal supervision i.e. at school in their normal lessons under exam style conditions!

The Rules: Choice of tasks…

- 3 supplied by the exam board each year
- Teachers will choose the ones which fit the topics being covered
- Students will do two of the tasks with the third used as a back-up
- Best marks go forward

Data Analysis: What does it involve?

- **Research and planning…** students may work without direct teacher supervision and may collaborate **{1 hour}**
- **Collecting data…** students carry out practical work under direct teacher supervision. Candidates may collaborate {**1 hour}**
- **Analysis, evaluation and review.** Students write a report independently and under **high control {1 hour}**

[TOTAL: 4 LESSONS]

Data Analysis: How?

Students…

- receive a copy of the information for the candidate (stimulus article)
- Must make a prediction OR hypothesis
- Select a safe method to test their hypothesis
- Carry out an experiment to collect data
- Write a conclusion and evaluation

Data Analysis: Key skills

- **Understanding variables (input, outcome and controlled)**
- **Using risk assessments**
- **Achieving reliable and accurate data**
- **Processing data (graph drawing, numerical methods)**
- **Analysing data (patterns, equations)**
- **Explaining patterns using scientific explanations**
- **Evaluating procedures, data and confidence in the hypothesis**

What can students do in their Data Analysis?

Students…

- Can discuss the hypothesis in class, as part of a teacher led class discussion including…
  - Factors/ variables and how to control them
  - Explanation of the hypothesis
  - Advice on how to approach the task
  - Resources
  - Key components for the final piece of work
- can be provided with a plan if the student's plan is not suitable
- can work together collaboratively in the first phase
- can use pooled class data if this helps the analysis
- must collect primary data
- can use previously prepared tables and graphs in the final phase
- can use Excel for graph drawing

What can teachers do to help with the Data Analysis?

Teachers can provide…

- A range of laboratory equipment to display, showing a variety of approaches
- Guidance/ answer questions to ensure student is on track to meet criteria in the first phase
- Resources
- generic writing frames
- **generic** feedback
- generic "student speak criteria" OCR mark schemes

Data Analysis Criteria:

Strand	0	1 – 2 marks	3 – 4 marks	5 – 6 marks	7 – 8 marks	AO
D	*	Describe the method and apparatus selected to collect data. Make an appropriate comment about safe working.	Comment on the techniques and equipment selected to collect data, showing some understanding of the need for repeatability. Correctly identify hazards associated with the procedures used.	Describe the techniques and equipment selected to collect an appropriate range of data of generally good quality, including regular repeats or checks for repeatability. Identify any significant risks and suggest some precautions.	Justify the method, range of values, equipment and techniques selected to collect data of high quality. Complete a full and appropriate risk assessment identifying ways of minimising risks associated with the work.	AO2: 6 marks AO3: 2 marks
E	*	Display limited numbers of results in tables, charts or graphs, using given axes and scales.	Construct simple charts or graphs to display data in an appropriate way, allowing some errors in scaling or plotting.	Correctly select scales and axes and plot data for a graph, including an appropriate line of best fit, or construct complex charts or diagrams eg species distribution maps.	Indicate the spread of data (eg through scatter graphs or range bars) or give clear keys for displays involving multiple data-sets.	AO3: 8 marks
		Select individual results as a basis for conclusions.	Carry out simple calculations eg correct calculation of averages from repeated readings.	Use mathematical comparisons between results to support a conclusion.	Use complex processing to reveal patterns in the data eg statistical methods, use of inverse relationships, or calculation of gradient of graphs.	

Data Analysis Criteria:

Strand	0	1 – 2 marks	3 – 4 marks	5 – 6 marks	7 – 8 marks	AO
F	*	Make a claim for accuracy or repeatability, but without appropriate reference to the data.	Correctly identify individual results which are beyond the range of experimental error (are outliers), or justify a claim that there are no outliers.	Use the general pattern of results or degree of scatter between repeats as a basis for assessing accuracy and repeatability and explain how this assessment is made.	Consider critically the repeatability of the evidence, accounting for any outliers.	AO3: 8 marks
G	*	Correctly state whether or not the original prediction or hypothesis is supported, with reference only to common sense or previous experience. The response is simplistic, with frequent errors in spelling, punctuation or grammar and has little or no use of scientific vocabulary.	Comment on whether trends or correlations in the data support the prediction or hypothesis and suggest why by reference to appropriate science. Some relevant scientific terms are used correctly, but spelling, punctuation and grammar are of variable quality.	Explain the extent to which the hypothesis can account for the pattern(s) shown in the data. Use relevant science knowledge to conclude whether the hypothesis has been supported or to suggest how it should be modified to account for the data more completely. Information is organised effectively with generally sound spelling, punctuation and grammar. Specialist terms are used appropriately.	Give a detailed account of what extra data could be collected to increase confidence in the hypothesis. The report is comprehensive, relevant and logically sequenced, with full and effective use of relevant scientific terminology. There are few, if any, grammatical errors.	AO1: 2 marks AO3: 6 marks

* No response, or response not sufficient for award of 1 mark

Case Study: What does it involve?

- **Research and planning…** students may work without direct teacher supervision and may collaborate **{1.5-2 hours}**
- **Analysis, evaluation and review…** students write a report independently and under **high control {1.5-2 hours}**

[TOTAL: 5 LESSONS]

Case Study… How?

- Students are provided with a News Sheet as a stimulus which contains…
  - people's views' on a topic (including opposing evidence and/or opinions)
  - section on the background science involved
- After further research the student will write a report looking at both sides of the argument giving an overall conclusion linked to the evidence

Case study…key skills

- **Using references/ sources**
- **Quotations**
- **Finding evidence**
- **Assessing the reliability of evidence/ opinions/ sources**
- **Understanding and applying the scientific explanations**

What can students do in their Case Study?

Students…

- get a copy of the news sheet
- can bring in articles, own notes, pictures e.t.c. from home in the first phase
- can work together in the first phase
- can refer to their portfolio of notes/ sources in the final stage

What can teachers do to help with the Case study?

Teachers can provide…

- Guidance/ answer questions to ensure the students are on track to meet criteria in first stage
- Resources
- generic writing frames
- **generic** feedback
- generic "student speak criteria"
- OCR mark schemes/ criteria (see next slide)

Case Study Criteria:

Strand/ Aspect	0	1 mark	2 marks	3 marks	4 marks	AO
A(a)	*	The content of the report does not go beyond what was given in the initial stimulus material.	The report includes information/ data from at least one additional relevant source found by the candidate.	Information/data has been selected from sources which represent conflicting views or opinions.	The information/data selected is relevant and provides balanced coverage of the range of views or opinions.	AO2: 4 marks
A(b)	*	Links to at least some sources are indicated, though these may not be fully detailed (eg reference to web-site home page or book by title only).	Most sources found by the candidate are identified, but many lack full details (eg reference to web-site home page or book by title only).	Comments are made about the validity of sources. References to nearly all sources used are sufficiently detailed to identify the pages that information has been taken from. Quotations are clearly identified.	Ownership and status of sources are evaluated to justify selection or rejection of information from them. References are fully detailed and link opinions or data to their authors.	AO2: 2 marks AO3: 2 marks
	0	1 – 2 marks	3 – 4 marks	5 – 6 marks	7 – 8 marks	AO
B	*	Only superficial mentions of any science explanations are given. The response may be simplistic, with frequent errors of spelling, punctuation or grammar and have little or no use of scientific vocabulary.	There is a basic outline of the main scientific ideas which are relevant to the claims and opinions. Some relevant scientific terms are correctly used, but spelling, punctuation and grammar are of variable quality.	There is a review of the evidence and of the scientific knowledge needed to understand the issues studied. Information is effectively organised with generally sound spelling, punctuation and grammar. Specialist terms are used appropriately.	Detailed scientific knowledge is used to analyse and interpret the evidence collected. The report is comprehensive, relevant and logically sequenced, with full and effective use of relevant scientific terminology. There are few, if any, grammatical errors.	AO1: 2 marks AO3: 6 marks

Case Study Criteria:

Strand/ Aspect	0	1 – 2 marks	3 – 4 marks	5 – 6 marks	7 – 8 marks	AO
C(a)	*	Evidence is unselectively reported without organising it in relation to different views of the issue being studied. The report has very little structure or coherence.	Items of evidence are clearly identified as 'for' or 'against' a particular view. The report has an appropriate sequence with some structure (eg use of sub-headings).	The evidence is compared to establish how it supports or refutes different views. Information is organised for effective communication of ideas.	Details of the evidence related to opposing views is evaluated and critically compared to show how the evidence supports or refutes each of the views. Issues are reported clearly with a consistent style.	AO3: 8 marks
C(b)	*	A simple conclusion is stated without linking it to supporting claims or evidence.	A conclusion is given based on the extent to which views or opinions discussed in the report are supported by scientific evidence.	Suggestions for appropriate recommendations are based on a conclusion which is clearly linked to evidence in the report.	Limitations of the conclusion, and alternative recommendations are considered, showing awareness of different interpretations of the evidence.	AO1: 2 marks AO3: 6 marks

* No response, or response not sufficient for award of 1 mark

Any Questions?