Turton School

Year 10 Curriculum Evening

Building on the knowledge of the past

To help the children of today

Meet the challenges of tomorrow

Mark Sykes

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
- How your child chooses to SPEND the next 2 years will determine their future.

Focus for the year

1. Back to basics.

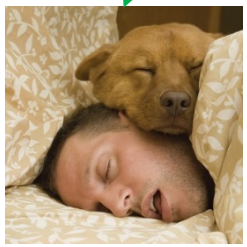
2. Personal Accountability.

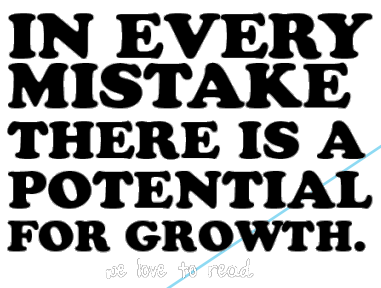
Back to Basics

- Attendance
- Punctuality
- Uniform

Personal Accountability

Personal Accountability





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Head of Year
Mark Sykes– sykesm@turton.uk.com

Associate Assistant Head Teacher
Natalie Parry – parryn@turton.uk.com

Mentors:
Diane Thompson, Kelly Hibbert, Diane Ault

Attendance

- Good attendance = good progress
- Great attendance = outstanding progress!

A child at 80% attendance = equivalent of having missed 1 day every week

New government policy on term time holidays.

We will only authorise holidays in KS4 for exceptional circumstances.

Cathy Bach

Deputy Head Teacher

Surviving Year 10

“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
- English Language, English Literature, Maths, Computing, French, Spanish, Geography, History, Art, Graphics, Dance, Drama, Food, Music, PE, FE and all Sciences 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

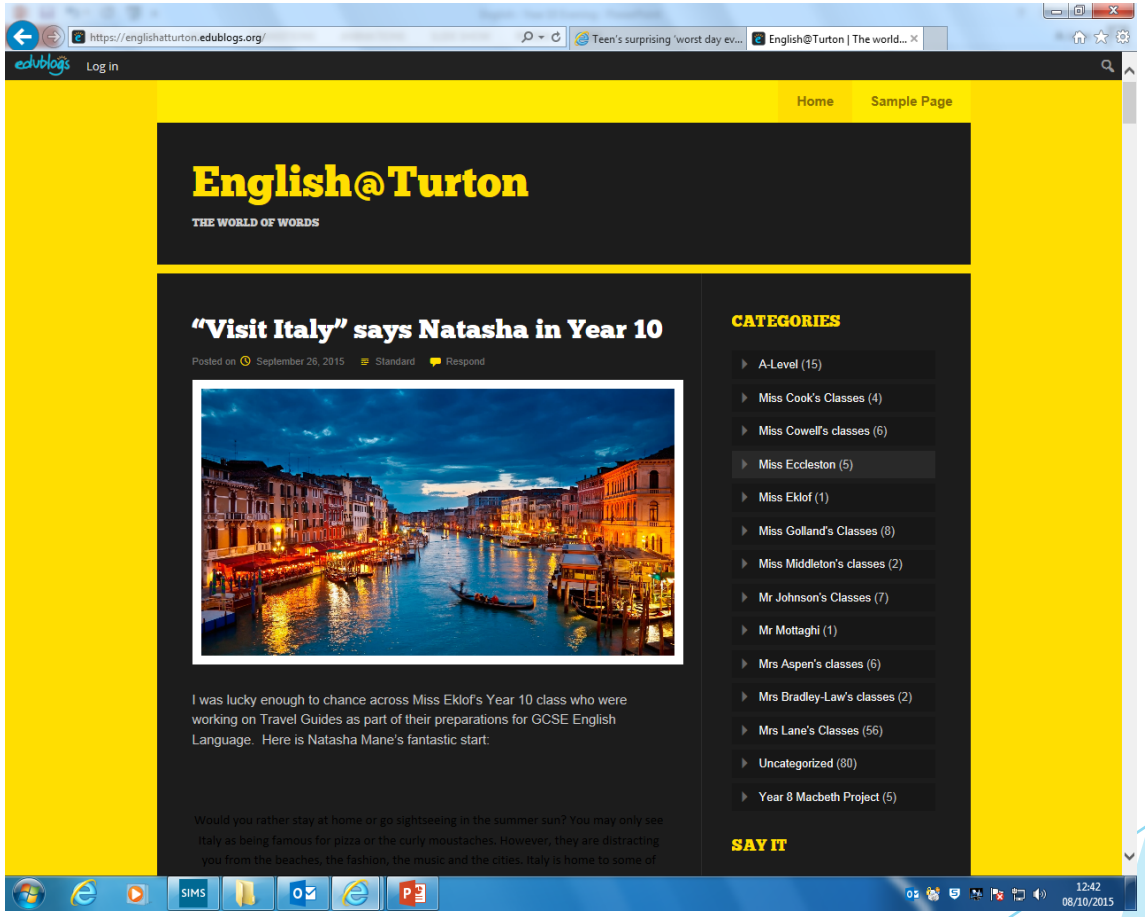
- Pieces set throughout year 10 and 11
- The same piece can have low, medium and high control segments.

Alice Lane

Head of English

Laugh-Learn-Love
Language & Literature
TURTON ENGLISH

The English Blog



www.englishatturton.edublogs.org

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Assessment in English

English Language – AQA

- 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

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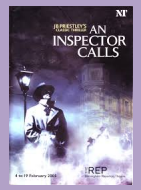
	Autumn	Spring	Summer
Year 9	❖ Of Mice and Men ❖ Romeo & Juliet 	❖ Reading non-fiction ❖ Writing non-fiction 	❖ Unseen poetry ❖ Oracy 
Year 10	❖ Unseen prose ❖ 19th century prose 	❖ Creative writing ❖ Anthology poetry 	❖ Reading non-fiction ❖ Writing non-fiction  *Year 10 exams*
Year 11	❖ Inspector Calls ❖ Revision of English Language  *Year 11 mocks*	❖ Shakespeare REVISION 	REVISION  *Language & Literature GCSEs*

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English Language

0 2 Look in detail at this extract from **lines 8 to 18** of the source:

The wind came in gusts, at times shaking the coach as it travelled round the bend of the road, and in the exposed places on the high ground it blew with such force that the whole body of the coach trembled and swayed, rocking between the high wheels like a drunken man.

The driver, muffled in a greatcoat to his ears, bent almost double in his seat in a faint attempt to gain shelter from his own shoulders, while the dispirited horses plodded sullenly to his command, too broken by the wind and the rain to feel the whip that now and again cracked above their heads, while it swung between the numb fingers of the driver.

The wheels of the coach creaked and groaned as they sank into the ruts on the road, and sometimes they flung up the soft spattered mud against the windows, where it mingled with the constant driving rain, and whatever view there might have been of the countryside was hopelessly obscured.

How does the writer use language here to describe the effects of the weather?

You could include the writer's choice of:

- words and phrases
- language features and techniques
- sentence forms.

[8 marks]

0 5 You are going to enter a creative writing competition.

Your entry will be judged by a panel of people of your own age.

Either: Write a description suggested by this picture:

Or: Write the opening part of a story about a place that is severely affected by the weather.

(24 marks for content and organisation
16 marks for technical accuracy)

[40 marks]

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How can you help?

1. Encourage good attendance
2. Encourage pupils to read (Take TV out of bedroom!?)
3. Take them to cultural events
4. Discuss with pupils useful websites
5. Check their planner/phone for homework
6. Correct basic literacy
7. During revision times get pupils to be active
8. Discuss memorisation – www.learningscientists.org
9. Set up a good place to work
10. Talk to us

Maths

Kelly Leonard &
Paul Sexton

Helping your child get the best from their GCSE

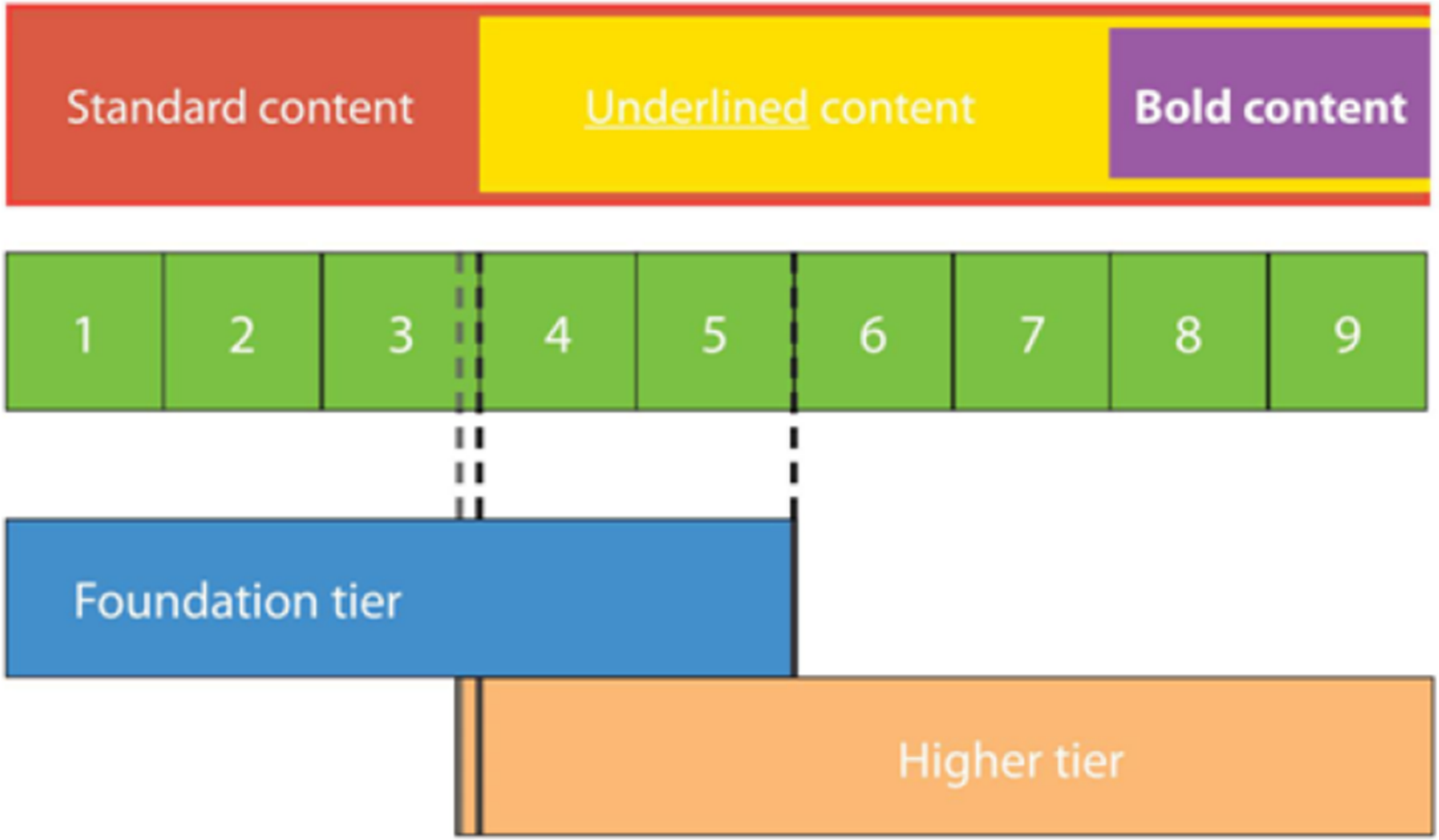
A Turton Guide to Year 10 & 11 Mathematics …

In 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

	Foundation tier	Higher tier
Number	25%	15%
Algebra	20%	30%
Ratio, proportion and rates of change	25%	20%
Geometry and measures	15%	20%
Probability	15%	15%
Statistics		


Standard content
Underlined content
Bold content
1
2
3
4
5
6
7
8
9
Foundation tier
Higher tier

Changes to subject content

Subject content introduced in the new GCSE includes:

- know the exact values of $\sin\theta$ and $\cos\theta$ for $\theta = 0°, 30°, 45°, 60°$ and $90°$; know the exact value of $\tan\theta$ for $\theta = 0°, 30°, 45°$ and $60°$ (Foundation and Higher tier)
- use inequality notation to specify simple error intervals due to truncation or rounding (Foundation and Higher tier)
- Venn diagrams (Foundation and Higher tier)
- work with percentages greater than 100% (Foundation and Higher tier)
- recognise and use the equation of a circle with centre at the origin; find the equation of a tangent to a circle at a given point (Higher tier only)
- find approximate solutions to equations numerically using iteration (Higher tier only)
- interpret the gradient at a point on a curve as the instantaneous rate of change; apply the concepts of average and instantaneous rate of change (gradients of chords and tangents) in numerical, algebraic and graphical contexts (Higher tier only)

Changes to subject content

Previously Higher tier content now included at Foundation tier includes:

- trigonometric ratios
- calculate with and interpret standard form ($A \times 10^n$), where $1 \leq A < 10$ and n is an integer
- apply addition and subtraction of vectors, multiplication of vectors by a scalar, and diagrammatic and column representations of vectors
- factorising quadratic expressions of the form $x^2 + bx + c$, including the difference of two squares
- using $y = mx + c$ to work with straight lines on graphs

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

Year 10

Wb Mon	15 weeks
	AUTUMN TERM
01/09/2014	Algebra 1- Basic notation, substitution, Simplifying expressions
08/09/2014	Algebra 1- Solving linear equations, expanding single brackets
15/09/2014	Algebra 1- Factorising, expanding 2 brackets, factorising into 2 brackets
22/09/2014	Algebra 1- Quadratics, inclusing solving
29/09/2014	Algebra 2- Sequences
06/10/2014	Shape 1- Angles and properties of shapes
13/10/2014	Shape 1- Angles and properties of shapes
20/10/2014	Shape 1- Basic circle theorems
27/10/2014	HALF TERM
03/11/2014	Shape 2- Vectors
10/11/2014	Shape 3- Perimeter, area and units of measure
17/11/2014	Revison and Assessment 1
24/11/2014	Number 1 Integers and Decimals - Ordering, calculations, rounding
01/12/2014	Number 1- Standard Form
08/12/2014	Number 2- Fractions (4 operations)
15/12/2014	Number 2- Fractions (reciptocals)
	END OF TERM

	11 weeks
	SPRING TERM
05/01/2015	Shape 3- Perimeter, area and units of measure
12/01/2015	Shape 3- Area (including area and circumference of a circle) and of compound shapes
19/01/2015	Shape 3- Volume, sectors and [illegible] lengths
26/01/2015	Algebra 3- Equation of a str[illegible] graphs
02/02/2015	Algebra 3- Equation of a st[illegible] graphs
09/02/2015	Algebra 3- Other types of[illegible]
16/02/2015	HALF TERM
23/02/2015	Handling data 1- Data c[illegible] Handling data 2- Aver[illegible]
02/03/2015	Handling data 2- Aver[illegible]
09/03/2015	Handling data 3- Re[illegible]
16/03/2015	Revison
23/03/2015	Revision and
	END OF TE[illegible]

	13 weeks
	SUMMER TERM
13/04/2015	Handling data 3- Representing data
20/04/2015	Handling data 3- Representing data
27/04/2015	Number 3- Percentages
04/05/2015	Number 3- Percentages
[illegible]015	Number 3- Percentages

Key Stage 4 Scheme of Work – Year 10

21. Handling Data 3 – Representing Data

Foundation Learning	5		3-4		1-2	
SUPPORT GRADE E - G		**CORE GRADE D - C**		**CORE GRADE B**		**EXTENSION GRADE A – A***
• Compare distributions shown in charts and graphs	E	• Compare distributions shown in charts and graphs	D/C	• Compare distributions shown in charts and graphs	B	• Compare distributions shown in charts and graphs
• Read information from and draw bar charts and duel bar charts	F	• Draw an ordered stem and leaf diagram and show the key	D	• Draw and read information from bar charts and histograms of equal class width.	B	• Draw and interpret box plots
• Read information from and draw pictograms	F	• Draw a scatter diagram	D	• Understand the difference between a Histogram and a bar chart	B	• Draw histograms from frequency tables with unequal class widths
• Interpret a simple pie chart	F	• Use a line of best fit and use it to make predictions (interpolate and extrapolate)	C	• Choose an appropriate way to display discrete, continuous and categorical data.	B	• Read information from a histogram with unequal class widths including finding the frequency table
• Draw a pie chart (for categorical data)	E	• Interpret a scatter diagram and appreciate that correlation is a measure of the strength of association between two variables	C	• Draw a cumulative frequency diagram	B	• Find the median, quartiles and interquartile range from a histogram
• Read information from stem and leaf diagrams	E	• Appreciate 'zero correlation' does not necessarily mean 'no correlation' but 'no linear relationship)	C	• Find the median and interquartile ranges from cumulative frequency diagrams	B	
• Recognise the different types of correlation	E	• Draw and read information from frequency polygons for discrete data	D	• Use a cumulative frequency diagram to solve problems	B	

	A
	A
	A
	A
	A*

Exam Style Question

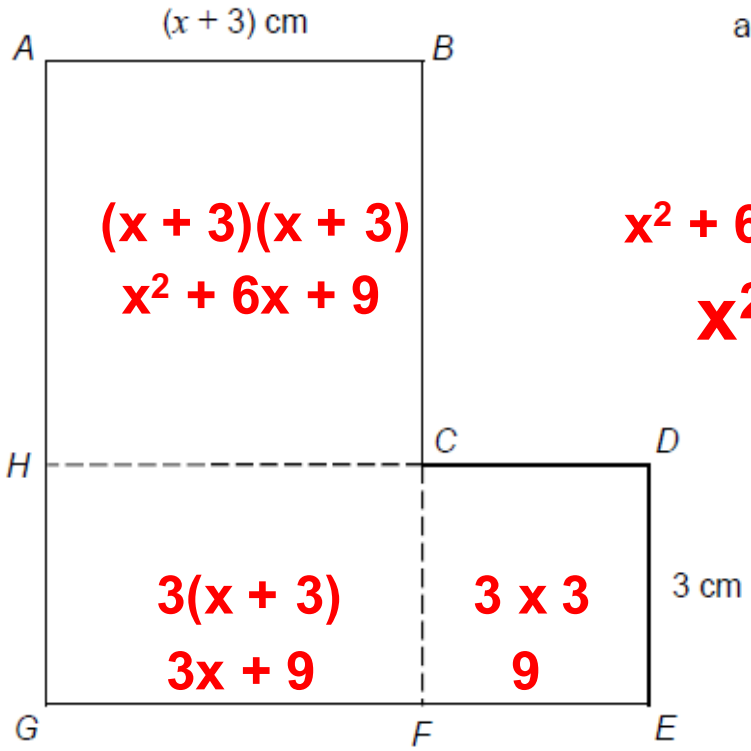
- On the next slide there is a question which has been taken from a new Foundation paper
- A slightly different question could have been asked in a less complex way. For example;
- Expand and simplify $(x + 3)(x + 7)$
- However, the question is testing a deeper understanding of the topic of expanding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

ABCH is a square.

HCFG is a rectangle.

CDEF is a square.

They are joined to make an L-shape.



Show that the total area of the L-shape, in cm^2, 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

percentage

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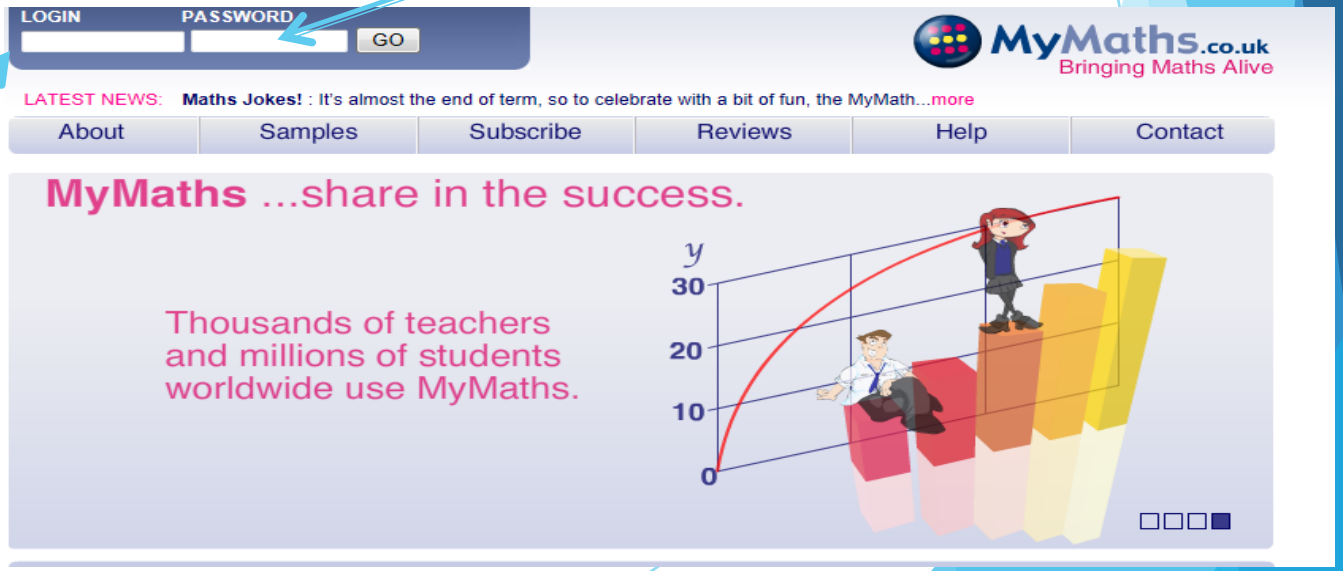
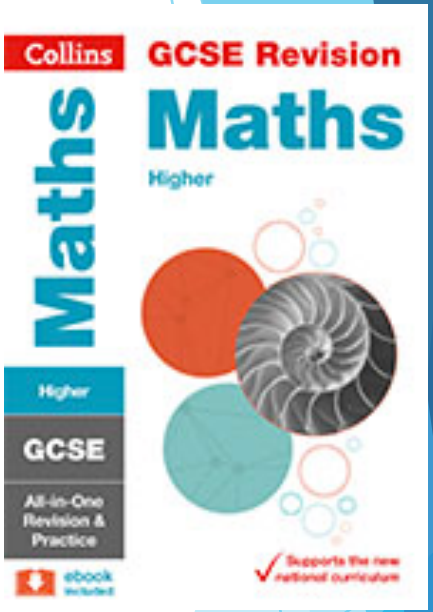


Revision

- 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.



“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 us:

Email: leonardk@turton.uk.com

or Mr P Sexton
(Acting Head of 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)

Are the Sciences getting more difficult?

- Yes!
- Greater maths content.
- Greater level of complexity of concepts.
- Huge number of specialist terms.

Key words/ terms: From one topic (atomic Structure)	Fairly familiar words: atoms, symbols, elements, compounds, mixtures, formula, word equation, symbols equation, particle, Periodic Table, metal, non-metal, solid, liquid, gas, properties, melting point, boiling point, chemical process (change), physical process (change), filtration, distillation, chromatography, crystallization, modelling, reactivity. New words: Alpha particle, Niels Bohr, James Chadwick, Dmitri Mendeleev, proton, neutron, electron, mass number, atomic number, isotopes, nanometers, radius, nucleus, energy levels, shells, abundance, Noble Gases, Alkali Metals, Halogens, molecules, scattering, displacement, Purification, relative mass, relative charge, relative atomic mass, electronic structure, plum pudding model, nuclear model, aqueous.

Will students study all 3 Sciences?

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

Trilogy:

Biology

Chemistry

Physics

Triple Sciences Option:

1. Atomic structure and the periodic table (page 17)
2. Bonding, structure, and the properties of matter (page 26)
3. Quantitative chemistry (page 36)
4. Chemical changes (page 43)
5. Energy changes (page 51)
6. The rate and extent of chemical change (page 55)
7. Organic chemistry (page 61)
8. Chemical analysis (page 70)
9. Chemistry of the atmosphere (page 75)
10. Using resources (page 80)

1. Energy (page 17)
2. Electricity (page 22)
3. Particle model of matter (page 31)
4. Atomic structure (page 35)
5. Forces (page 42)
6. Waves (page 58)
7. Magnetism and electromagnetism (page 66)
8. Space physics (physics only) (page 71)

1. Cell biology (Page 16)
2. Organisation (Page 24)
3. Infection and response (Page 31)
4. Bioenergetics (Page 37)
5. Homeostasis and response (Page 41)
6. Inheritance, variation and evolution (Page 51)
7. Ecology (Page 66)
8. Key ideas (Page 76)

How many GCSEs could I achieve?

- Depends!
- Most students will follow two GCSE courses
- One set in each band will follow a three GCSE course if they have opted for it.

Which courses do you follow?

- AQA Trilogy (8464) for the 2 GCSE
- AQA Biology (8461), Chemistry (8462), Physics (8463) for the Triple Science route.

Are all GCSE courses now examined terminally?

- Yes!
- All the Science exams will be in May/ June 2018 with no GCSEs at the end of Year 10 (but there will be formal assessments).

Does the tier of entry affect the grades obtainable?

- Yes!
- Higher Tier allows grades in the range 5-9
- Foundation Tier allows grades in the range of 1-5
- 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?

- 6 assessments for the Trilogy route…
  - 2 for Biology, 2 for Chemistry, 2 for Physics
  - 6 lots of one hour 15 minutes long externally assessed exams
    [each one worth 16.7% of the total]
- 6 assessments for the Triple Science route…
  - 2 for Biology, 2 for Chemistry, 2 for Physics
  - 6 lots of one hour 45 minutes long externally assessed exams
    [each one worth 50% of the GCSE]

Does the Trilogy (two GCSE) route limit options in Sixth Form?

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

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).
  - AQA website (specifications, specimen papers).
  - Youtube and twitter.
- Good attendance of students.

Useful Resources:

Web based:

- Trilogy Specification;
- Triple GCSE Science specifications (Biology, Chemistry, Physics)
- 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.

Any Questions?