

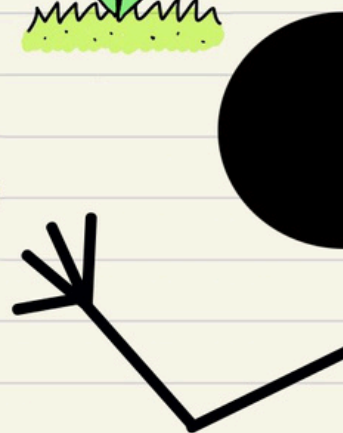
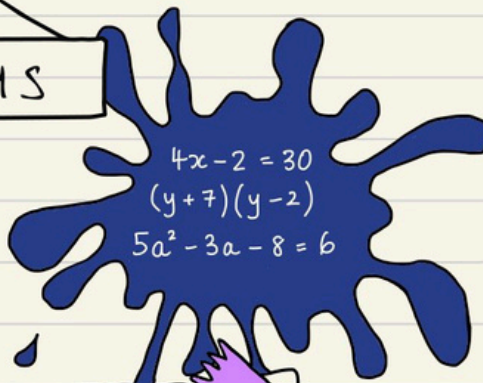
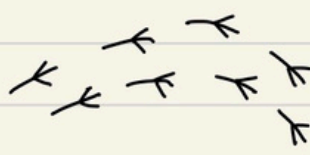
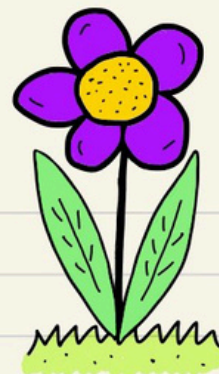
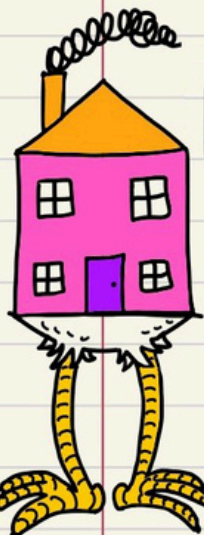
Lynn High School

SCIENCE

ENGLISH

MATHS

$$4x - 2 = 30$$
$$(y + 7)(y - 2)$$
$$5a^2 - 3a - 8 = 6$$



MATHS

SCIENCE

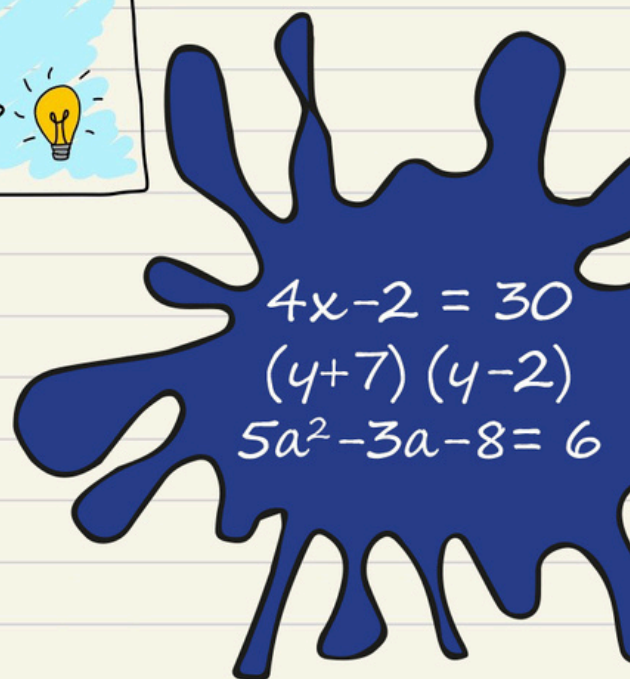
ENGLISH

# KS3 Revision Guide

January 2026



$$4x - 2 = 30$$
$$(y + 7)(y - 2)$$
$$5a^2 - 3a - 8 = 6$$



KS3 Exams

19  
JAN

23  
JAN

2026

# Why is being skilled at revision so important and how can you make it effective?

We acquire a great deal of knowledge and understanding at school, and throughout our lives more generally, but some of the most interesting and useful information we don't always remember. Being able to retain this knowledge builds confidence, gains understanding, can develop a passion for a subject, helps us do well in assessments and exams, and gives us opportunities beyond school as a result of a wider range of choices. Gaining knowledge and understanding of the world helps us develop opinions, empathise with other people and become rounded, interesting and socially responsible citizens.

We want you to do as well as you possibly can in your KS3 exams (and later on in your GCSEs, A' levels and Vocational qualifications). Revising properly is a crucial part of this because it means you experience a real sense of achievement in your own learning, and it also means your exam score is more likely to reflect your true knowledge and understanding in a subject. This helps your teacher to help you, by telling them which subject content you understand well already and which needs a bit more consolidation.

# Creating the right revision environment

- Find a quiet place to study – this should be away from younger siblings, pets and other distractions at home.
- Turn off the TV and your music, put your phone in another room so you are not tempted to pick it up every time you get a message or social media alert!
- Find a flat surface you can work on (this could be a desk or the kitchen table), find a chair to sit in that supports your back.
- Have the following items to hand: this KS3 revision guide, Knowledge Organisers, subject revision guides linked in the subject pages here (or other subject-specific materials), exercise books for the subject, pencil case, lined paper and a drink.
- Go to the toilet before you start.
- Create a timetable for your revision weeks, deciding at which time you are going to do your blocks of revision, and stick to it. Take a photo of your timetable and send to your parent/carer so they can help you stay on track.
- Plan 30 minutes of revision at a time and make sure you have at least a 10-minute break before doing another one. Aim for 45-60 minutes per day in the 3-4 school weeks before the exams, with perhaps a little more at the weekends.
- Be disciplined with yourself – it can be hard not to get distracted sometimes but just remember how great it will feel when you prove what you are capable of.



# Revision strategies

THERE ARE A VARIETY OF DIFFERENT REVISION STRATEGIES YOU CAN USE TO REVISE.

## 3 essential revision strategies



**Look, cover, write, check** – a quick and easy method for testing yourself

**Brain dump**  
– organising and summarising information for better recall

**Quizmaster**  
– to test yourself and others and strengthen your memory

## Look, cover, write, check



**Look**



**Cover**



**Write**



**Check**

- Look at, and read, a section of your Knowledge Organiser a few times.
- Cover up the information (the definition of words for example).
- Write down what you can remember on a piece of paper
- Check to see what you missed

## Brain dump

**Look at, and read, a section of your KO a few times** (or if you feel confident about the topic already, you can miss this step!)



**Put your KO away** and mindmap everything you can remember about this topic – keep going until you run out of ideas!



**Check to see what you missed**, and add this in another colour.

**Repeat!**

## Quizmaster



**Look at, and read, a section of your KO a few times**



**Write 5-10 quiz questions based on the most important information** – start with openers like What is...? How does...? Where is...? What does...?



**Test yourself using your quiz** (or get someone else to test you!)



**Mark your answers** and fill in any mistakes



**Repeat the next day** or a few days later to make sure it has stuck!



# Knowledge Organisers



## WHAT IS A KNOWLEDGE ORGANISER?

Knowledge Organisers are documents that contain the key information, or 'threshold concepts' that you need to know for a particular subject.

They are usually about one side of A4 for each topic, and you should aim to memorise as much of the detail on the Knowledge Organiser as possible.



## Maximising Memory

There is currently a lot of academic interest in the role of memory, and how we can maximise its capacity and performance. One particularly effective method of helping facts to 'stick' is something called 'spaced practice', where a subject is returned to again and again.

## Recall information from memory

If not used effectively, the Knowledge Organisers will not yield the best results. The method that we endorse is a simple one: Look, Cover, Write, Check. This method is called self-quizzing.

## Still aren't sure how to revise?

Click [here](#) for a help video which explains how to use the 3 revision techniques we recommend in KS3:

**self quizzing** use this for mainly English & Science but also in Maths when using your Knowledge Organiser

**brain dump** use for English & Science

**mind-mapping** only use this for planning of answers to practice questions in English, we'd prefer you **not** to spend hours creating your own mind maps - it's more important to use the printed content you already have in KOs and use your time to use the **self-quizz** or **brain dump techniques** or complete **practice questions**.



## WHICH KNOWLEDGE ORGANISER?

The following pages include links to the relevant Knowledge Organisers for the Year 7, 8 and 9 January exams.



# Key Stage 3 English Revision



# Year 7

## TIPS FOR REVISING ENGLISH


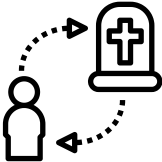


For your January exam, you are going to be answering a question focused on an extract from *The House with the Chicken Legs*. Within the exam you will be expected to read the extract, identify the techniques the writer uses, and explore the language and the writer's purpose.


You will be given 10 minutes reading and annotation time, 25 minutes writing time and 5 minutes proof reading time. In total your exam will be 40 minutes (50 minutes if you have extra time).

## Revision Techniques

- **Practice vocabulary** from your vocabulary list.
- **Quizzes from the Knowledge Organiser.**
- **Look, cover, write, check.**
- **Use your exercise book** and teacher feedback from previous work.
- **You will be set a targeted homework** the week before your exam to support your final revision.

## Themes to revise

|                       |   |   |
|-----------------------|---|---|
| <b>Supernatural</b>   |  | Baba Yaga is a supernatural being and her house with chicken legs magically moves around from place to place.   |
| <b>Life and death</b> |  | Marinka longs to live amongst the living but her role as future Yaga means she spends all of her time with the dead as she guides them into the stars. Ultimately, learning that even death can inspire us to embrace life and that death doesn't mean the end.   |
| <b>Loneliness</b>     |  | The only people Marinka meets are dead. Other than her grandmother, Baba Yaga, and her jackdaw Jack, Marinka is utterly alone and desperate for friendship.   |
| <b>Love</b>           |  | <p>Marinka is a young girl who is desperate for security. She feels loved by Baba Yaga but misses the love of her parents that she lost at a very young age.</p> <p>Marinka searches for love and security in friendship - the close friendship and love of her pet jackdaw; briefly her friendship with other characters she encounters on her journey to adulthood.</p> |

|                 |   |   |
|-----------------|---|---|
| <b>Betrayal</b> |  | <p>Marinka feels betrayed by her grandmother and is thrust into the adult world too soon. The difference between the act of betrayal and how that feels versus the feeling of being betrayed by someone you love.</p> |
|-----------------|---|---|

## Practice Questions

Below are two exam-style questions. Spend 5 minutes reading the extracts, highlighting useful quotations and then exploding your quotes like you have practiced in class! Remember – when you are exploding a quote we need to look at what each key word in the quote is suggesting about our characters!

### Q1 - How does Anderson present Marinka in the extract?

When I was younger I used to try to guess what their lives had been like, or what pets they might have had, but now I'm twelve years old I'm bored of that game. My gaze is drawn to the lights of the town glistening far below; a universe of possibilities.

I jump as Jack swoops out of the darkness and lands on the window sill next to me. His claws click against the wood and he ruffles his feathers. It sounds like the wind in the trees and I think of the freedom in the air.

"I wish I could fly down there, Jack." I stroke the back of his neck. "And spend an evening with the living." I think of all the things the living might be doing, things I've only read about in books but could actually do if I went to the town: run races or play games with other children; watch a show in a theatre surrounded by warm, smiling faces...

### Q2 - How does Anderson present Baba Yaga in the extract?

Baba is stirring a great cauldron of borsch over a roaring fire. She turns and smiles as I enter the room, an excited twinkle in her eyes. "You look lovely, my pchelka. Are you ready?"

I nod and force a smile, wishing I loved guiding as much as she does.

"Look." Baba glances at her chair where a violin sits, freshly strung and polished. "I finally got round to mending it. I hope one of the dead will play us some fresh tunes."  
"That would be nice."

The prospect of new music would have excited me not so long ago, but these days, no matter which of her old musical instruments Baba fixes up, the nights spent guiding all feel the same. "Shall I pour the kvass?" I look at the table, where an army of stout glasses are waiting to be filled with the dark, pungent drink.

"Yes, please." Baba nods. I push my way through the steamy sour smells as she wails a song off-key, swaying a spoonful of the bright red beetroot soup up to her lips.

"More garlic," she mutters and throws a handful of raw cloves into the mix.



# Writing Structure

When you are putting together your quote explosions into paragraphs, it is best to make sure that you have

- **A clear point** – Anderson presents Marinka as... when she...
- **Add your quote** – Anderson writes "..."
- **Overall and method** – Overall, the simile here suggests...
- **Zoom 1** – The word "... demonstrates... But, this could also convey...
- **Zoom 2** – Finally, the word "... furthers this sense of ... because... This tells us that Marinka is

Now try to use a quote from question 1, and the paragraph structure here to write a response!

# Year 8

## TIPS FOR REVISING ENGLISH

For your exam you will be asked to write an analytical response to one of the poems you studied before Christmas, in your English lessons.

You will be given a clean copy of the poem and asked how the speaker is presenting their ideas of love.

You will have 45 minutes in total. 10 minutes should be spent planning, in detail, all of your ideas. You must then spend 30 minutes writing. Then leave 5 minutes at the end to re-read your work.

## Revision Techniques

Your first part of your revision is to go back over the 5 poems you studied in class and revise their overview, context and key lines. Your exam will be on ONE of these 5 poems:

- Porphyria's Lover
- Sonnet 130
- Valentine
- I Am Trying to Break Your Heart
- Human Interest

Quizzes from the Tainted Love Poetry Knowledge Organiser. Look, cover, write, check. Use your exercise book and teacher feedback from previous work.

You will be set a targeted homework the week before your exam to support your final revision.

## Practice Questions

1. How does the speaker present ideas about obsessive love in Porphyria's Lover?
2. How does the speaker challenge traditional ideas about love in Valentine?
3. How does the speaker feel about love in I Am Trying to Break Your Heart?

## Paragraph Structure

To make sure you hit all of the mark scheme points accurately, your paragraphs should include:

- **A clear point** – The speaker feels ... about ... because...
- **Add your quote** – The poet writes "..."
- **Overall and method** – Overall, the simile here suggests...
- **Zoom 1** – The word "... " demonstrates... But, this could also convey...
- **Zoom 2** – Finally, the word "... " furthers this sense of ... because... This tells us that the speaker feels...
- **Context** – This idea of love is/is not traditional in this time period because...

# Year 9

## YEAR 9 EXAM

**The exam:** You will write an argument that is based on a statement, similar to those you have practiced throughout the Morality of the Modern Age scheme.

You will have **45 minutes** to complete your tasks.

- The first 15 minutes will be a short analysis task and this will be worth 5marks.
- You will read, highlight and annotate two quotations from the short extract and write two paragraphs of quotation explosion.




**You should then move on to question 2.**

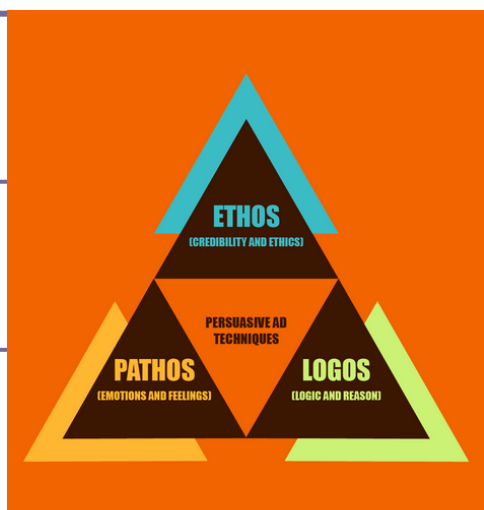
- Spend 5 minutes planning your task.
- You will write your response in 20 minutes, aiming for at least 2-3 paragraphs of detailed writing.
- You will be assessed on the quality of your writing and the accuracy of your grammar and punctuation and should use a range of techniques.

## Revision Techniques

- Use flashcards to remember your language techniques. Practice finding these in the extracts provided and applying these for effect in creative and descriptive writing.
- Revise varied sentence openers and sentence starters to help add variety in your writing and make it seem interesting.
- Practice your writing by completing the practice tasks
- Use the short paragraphs to practice analysis skills.

## Key Knowledge

|        |   |  |
|--------|---|--|
| PATHOS |  | The means of persuasion that appeals to the emotions of an audience.                             |
| ETHOS  |  | The believability and credibility of a speaker - this encourages the audience to listen.         |
| LOGOS  |  | The means of persuasion by demonstration of logical proof or reasoning that is real or apparent. |



Use techniques to help you achieve ethos, logos and pathos:

| Language Techniques        | Definition  | Example   |
|----------------------------|---|---|
| <b>Rhetorical question</b> | A question asked in order to prompt further thought or to make a point rather than to get an answer.          | If not me, then who? If not now, then when?   |
| <b>Emotive language</b>    | Words or phrases deliberately used to evoke a powerful feeling from the reader i.e. sympathy, anger, outrage. | I find the notion that I am not worthy of voting for my country's next leader because of my age, both demeaning and deeply insulting. |

| Language Techniques                          | Definition   | Example  |
|--|--|--|
| <b>Statistic and facts</b>                   | A fact that is supported by numerical data.<br>Facts are information that can be proved to be true.                              | The Trussell Trust's foodbank network distributed 1,332,952 three day emergency food supplies to people in crisis, a 13% increase on the previous year. 484,026 of these went to children.   |
| <b>Flattery</b>                              | Deliberately complimenting the reader.   | The very fact that you are reading this article suggests that you are compassionate and understanding of the plight of your fellow man.  |
| <b>Hyperbole</b>                             | Deliberately exaggerated language.   | He was so obnoxious; I was hoping he would be arrested on the spot and given a very long prison sentence purely for not saying please or thank you.  |
| <b>Eye-witness quotation/ expert opinion</b> | Direct speech from a person who witnessed an event or direct speech from someone who has an in-depth understanding of the topic. | The British Nursing Association said the move was "hugely concerning" and a stark example of the "extreme workforce pressure" at NHS emergency services, which are facing rising demand while recruitment and retention of nurses gets harder. |

### Structure your writing:

| Paragraph structure   | Sentence examples   |
|---|---|
| <b>An opening idea that links to the question/continues your argument.</b>                  | Building on the latter idea....<br>Whilst this idea is important, it is also crucial that we consider.... |
| <b>An example that supports your point/idea.</b>  | This became clear to me when....<br>Consider the example of...<br>This is especially true of...           |
| <b>An explanation of how your example and point work together to support your argument.</b> | This indicates that.....<br>You must recognise that.....<br>It is evident that....                        |
| <b>Link back to the question.</b>   | Ultimately.....<br>Considering the latter.....<br>With this mind...                                       |

# Revision tasks for analysis practice

Prepare for question 1 of the exam by annotating and exploding 2-3 quotes from each extract that help you to answer the question.

You can then use the SQA structure to practice paragraphs.

## Extract 1

### How has the writer used language here to create concern for the environment?

Environmental destruction is accelerating at an alarming pace, driven largely by human activity that depletes natural resources faster than they can recover. Forests, which absorb carbon dioxide and support most of the world's terrestrial wildlife, are disappearing rapidly—according to the UN Food and Agriculture Organisation, around 10 million hectares of forest are lost every year, an area roughly the size of Iceland. This loss not only worsens climate change but also threatens food security, clean water, and biodiversity. If our planet's life-support systems are being stripped away on such a massive scale, how long can humanity continue to thrive while ignoring the damage it causes?

## Extract 2

### How has the writer used language here to encourage change?

Why does ocean plastic feel like such a distant problem? Because most of us don't see it—until we do. A marine biologist once described cutting open a young seabird during a routine study and finding its stomach packed with bottle caps, plastic shards, and a lighter, leaving no room for food at all. That single moment captures the heartbreak hidden beneath the waves: plastic does not simply disappear; it chokes, poisons, and starves marine life in silence. We ask ourselves why this matters, and the answer is painfully clear—every discarded bottle and wrapper carries a ripple of suffering into ecosystems that cannot speak but are slowly suffocating all the same.

## Extract 3

### How has the writer used language here to create sympathy?

Animal testing remains one of the most emotionally charged practices in modern science, because it places living, feeling creatures in the path of human progress. Each year, over 100 million animals worldwide—including mice, rabbits, and dogs—are used in laboratory experiments, many of which involve pain, confinement, or premature death. These animals cannot consent or understand why they suffer; they experience fear and distress in sterile cages far from anything familiar or comforting. At the same time, scientific reviews show that around 90% of drugs that pass animal tests fail in human clinical trials, raising serious questions about both the ethics and effectiveness of this approach. When compassion and evidence both suggest the need for change, it becomes hard not to sympathise with the silent creatures paying the price for methods that may no longer be the best we have.



# Structuring your analysis response

**S:** find a technique that the writer has used for effect. E.g.: fact, statistic, rhetorical question etc.

**Q:** include a supportive quotation

**AAA:** zoom into different key words and techniques from the quote.

## Sentence stems:

The writer has used a **[embed technique]** to create...

This is shown in the quotation “\_\_\_\_\_”

This suggests,

Furthermore the **[technique]** reveals...

The **[technique]** also shows...

# Revision tasks for writing practice

Prepare for question 2 of the exam by writing your own speeches for the tasks below.

Remember, punctuation and sentence structure is important, as well as using a range of techniques to achieve ethos, pathos and logos.

“Human beings are destroying the environment beyond repair, and not enough is being done to stop it.”

- **Task:**

Write an article for a school or online magazine in which you explain your views on environmental destruction.

“Plastic pollution in the oceans is one of the most shocking environmental crimes of our time.”

- **Task:**

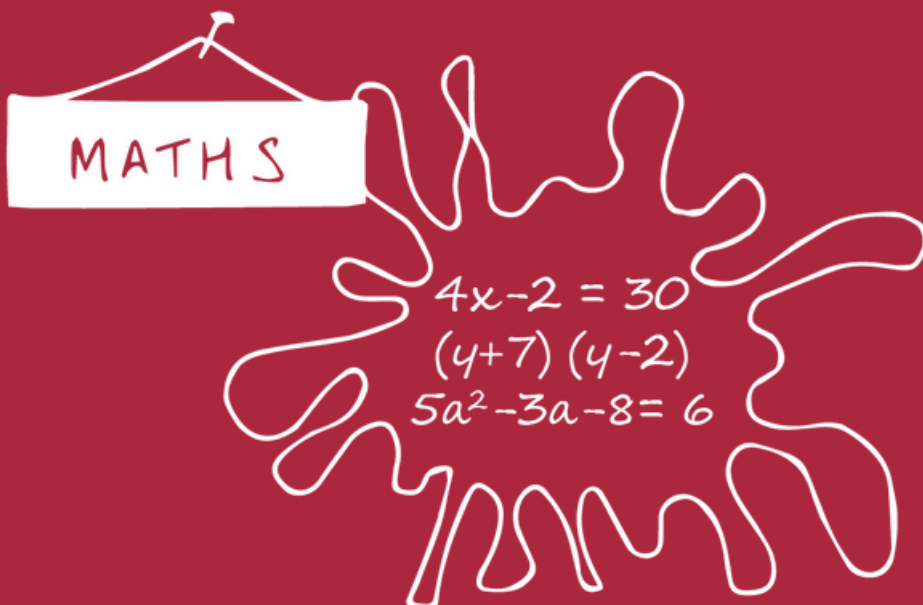
Write a speech for a youth climate conference in which you argue your point of view on ocean plastic pollution.

“Animal testing is cruel, outdated, and should be banned entirely.”

- **Task:**

Write an article for a national newspaper expressing your opinion on animal testing.

# Key Stage 3 Maths Revision



## TIPS FOR REVISING MATHS

- **Use Knowledge Organisers** and the Read, Cover, Write, Check, Correct method to learn key definitions and formula.
- **Do the targeted Mathswatch** revision homeworks set by your teacher, these are the most similar questions to the tests.
- **Use websites** such as Mathswatch, Corbett Maths, Mr Barton's Maths and BBC Bitesize to target topics you have struggled with and practise questions on them.
- **Practice using your calculator efficiently.**
- **Copy down your examples** from class again and justify each step in your teacher's solution.
- **Ask your teacher** about any work that you have not understood and ensure you practise it again.
- **Use your January Assessment Feedback Sheet** to highlight your weaker topics and then use the websites above to practise questions on these areas.
- **Find past papers online from AQA and Edexcel** and attempt them in test conditions. Please bear in mind that these will be GCSE papers and will be most appropriate for Year 9. Practise, Practise, Practise!

## Past Paper Questions & Mark Schemes

### AQA GCSE Maths Past Papers

<https://www.aqa.org.uk/find-past-papers-and-mark-schemes>

### Sample question papers also available on mathswatch

These will be issued by Miss Dunne and notification given on Class Charts.

## Useful Websites

### Mathswatch

[www.vle.mathswatch.co.uk/vle/](http://www.vle.mathswatch.co.uk/vle/)

Please see your maths teachers for log-in details

### Maths Made Easy

[www.mathsmadeeasy.co.uk](http://www.mathsmadeeasy.co.uk)

### BBC Bitesize

KS3 Maths - BBC Bitesize

### Maths Genie (Year 9 only)

[www.mathsgenie.co.uk](http://www.mathsgenie.co.uk)

(choose GCSE revision)

### Revision Maths

[www.revisionmaths.com](http://www.revisionmaths.com)

### Mr Barton's Maths

<http://www.mrbartonmaths.com/>

### Corbett Maths

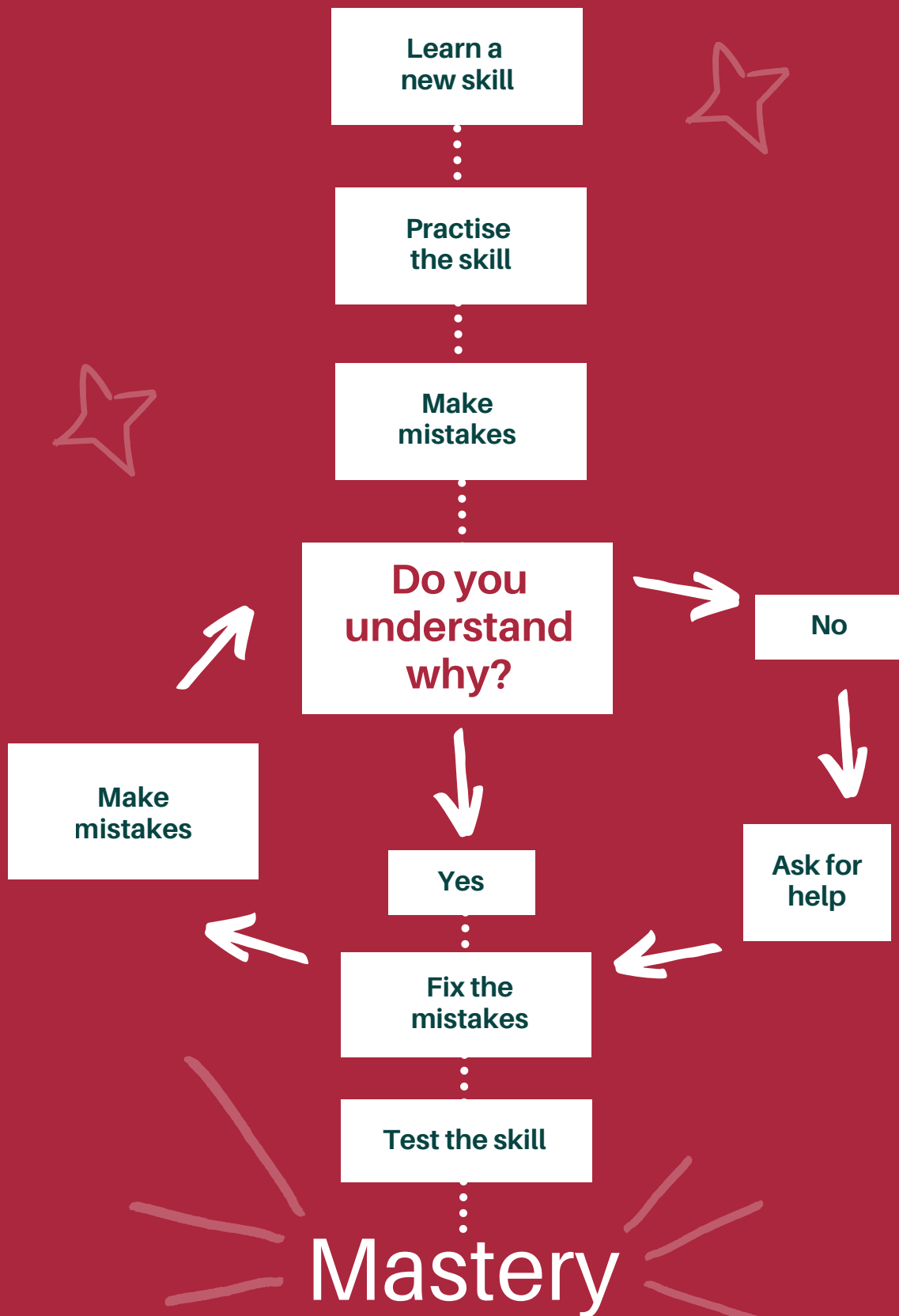
[www.corbettmaths.com](http://www.corbettmaths.com)

### Sparx

[www.sparxmaths.uk](http://www.sparxmaths.uk)

(topic codes for the videos can be found on the maths revision lists)

# How to learn Maths



# Maths Revision List

All Year 7 and Year 8 Maths exams will last 45 minutes non-calculator.

Students will require: pen, pencil, ruler, rubber, pencil sharpener, protractor and a pair of compasses

## Year 7

### CORE & EXTENSION (SETS 1A, 1B, 2A & 2B)

- Factors, multiples, primes, cubes and squares (U211 & M322)
- Rounding to significant figures and estimating (M994, M131 & M878)
- Prime factorisation. HCF and LCM (M108 & M365)
- Writing and simplifying algebraic expressions (U105)
- Expanding single brackets (M237)
- Factorising into single brackets (M100)
- Probability of events occurring (M332 & M206)
- Multiplication and division (M187 & M354)
- Reading train timetables (M963)
- Area and Perimeter of rectangles (M390 & M635)
- Area of trapezia, area of circles (M705 & M231)
- Angles on a straight line, around a point, in a triangle, in parallel lines and in regular polygons (M818, M351, M606 & M653)



**[CLICK HERE](#)**  
**[to view the current](#)**  
**[KS3 Knowledge](#)**  
**[Organiser](#)**

## Year 7

### CORE & SUPPORT (SETS 3A & 3B)

- Addition and subtraction (M928 & M347)
- Multiplication and division (M187 & M354)
- Adding with negative numbers (M106)
- Rounding to the nearest 10,100,1000 (M111)
- Probability of events occurring (M332 & M206)
- Prime factors (M108)
- Working with time (M627)
- Factors, multiples, primes, squares and cubes (U211 & M322)
- Money (M681)
- Reading train timetables (M963)
- Simplifying in algebra (U105)
- Angles around a point, on a straight line and angles in triangles (M818 & M351)
- Expanding single brackets (M237)
- Area of triangles and rectangles (M610 & M390)



**[CLICK HERE](#)**  
**[to view the current](#)**  
**[KS3 Knowledge](#)**  
**[Organiser](#)**

# MATHS topics you need to revise for the exam

## Year 8

### CORE & EXTENSION (SETS 1A, 1B, 2A & 2B)

- Non calculator percentages (M476)
- Squares and square roots (M135)
- Fractions of amounts
- Adding, subtracting, multiplying and dividing fractions (M835, M157 & M110)
- Fractions, decimals, percentages equivalence (M958)
- Percentage increase/decrease (U773)
- Percentage change (M476)
- Equivalent fractions, ordering fractions (M410 & M335)
- Prime factorisation (M108)
- Writing expressions
- Substituting into expressions (M327)
- Expanding single and double brackets and simplifying (M237, M792 & M960)
- Factorising into single brackets and quadratic expressions (M100 & M908)
- Simplifying algebraic fractions (M754)
- Angle properties on a straight line, around a point, in parallel lines (M818 & M606)
- Bearings (M416)
- Area of triangles, parallelograms, circles and parts of circles (M610, M291, M231 & M169)



**[CLICK HERE](#)**  
**[to view the current](#)**  
**[KS3 Knowledge](#)**  
**[Organiser](#)**

## Year 8

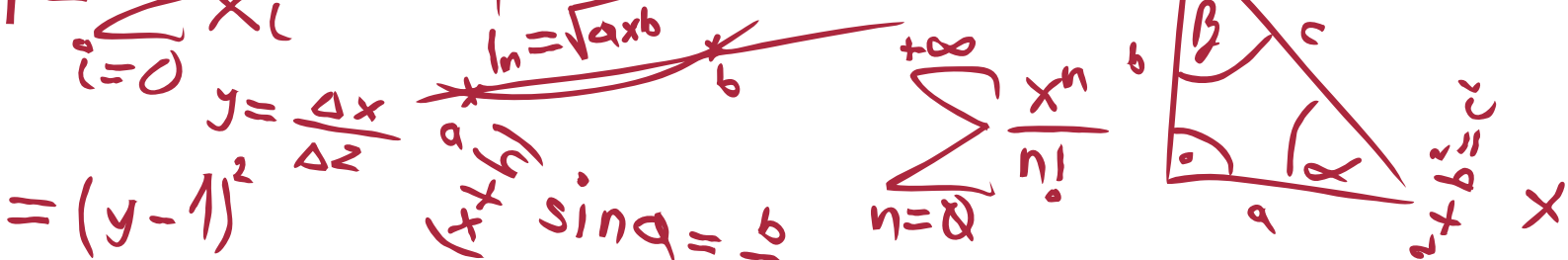
### CORE & SUPPORT (SETS 3A & 3B)

- Place value of numbers (M704)
- Rounding to nearest 10,100,1000 (M111)
- Non calculator percentages (M476)
- Prime factors (M108)
- Adding, subtracting, multiplying and dividing fractions (M835, M157 & M110)
- Rounding to significant figures and estimating (M994, M131 & M878)
- Squares and square roots (M135)
- Fractions of amounts
- Equivalent fractions, ordering fractions (M410 & M335)
- Angles properties around a point, on a straight line (M818)
- Long multiplication (M187)
- Writing expressions and Collecting like terms (U105)
- Finding the mean, range and mode from a list of data and a table (M940, M328, M841 & M127)
- Expanding single brackets and simplifying (M237, M792)
- Substitution (M327)
- Factorising single brackets (M100)
- Find the area and perimeter of rectangles (M390 & M635)
- Find the area of a trapezium (M705)
- Find the area and perimeter of circles and semicircles (leaving answer in terms of ) (M231 & M169)



**[CLICK HERE](#)**  
**[to view the current](#)**  
**[KS3 Knowledge](#)**  
**[Organiser](#)**





All Year 9 Maths exams will last 55 minutes Non-calculator.

Students will require: pen, pencil, ruler, rubber, pencil sharpener, protractor and a pair of compasses.

## Year 9

### CORE & EXTENSION (SETS 1A, 1B, 2A & 2B)

- Rounding to significant figures and estimating (M994, M131 & M878)
- Nth term and linear sequences (U498)
- Error Intervals (M730)
- HCF and LCM (M698 & M227)
- Writing expressions
- Solve linear equations with unknowns on both sides (M554)
- Factorise and solve quadratic equations (M908)
- Rearranging formula (M242 & M983)
- Expanding single and double brackets and simplifying (M237 & M960)
- Factorising into single brackets (M100)
- Simplifying algebraic fractions (U298)
- Simplifying ratios (M885)
- Find the area of a trapezium, circles, parts of circles, and compound shapes (M705, M231, M430 & M269)
- Volume of cuboids (M765)
- Probability trees (M299 & M572)
- Sample space diagrams (M718)



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## Year 9

### CORE & SUPPORT (SETS 3A & 3B)

- Addition and subtraction including decimals (U478)
- Multiplication and division including decimals (M803 & M491)
- Factors, multiples, primes, squares and cubes (U211 & M322)
- Money (M681)
- Fractions, decimals, percentages equivalence (M958)
- Nth term and linear sequences (U498)
- Equations of lines and midpoints (E538 & M622)
- Rounding to significant figures and estimating (M994, M131 & M878)
- Angles properties around a point, on a straight line (M818)
- Representing data in charts and graphs (M460)
- Writing expressions
- Expanding brackets and simplifying (M237)
- Simplifying in algebra (U105)
- Factorising single brackets (M100)
- Solve linear equations including with brackets (M902)
- Properties of special triangles (Q763)



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# Key Stage 3 Science Revision



# KS3 SCIENCE REVISION

The Science exam for all years will last 45 minutes.

Your Science exam will be one paper and will cover all the content you've learned so far this year from all 3 sciences: Biology, Chemistry and Physics. You will need to make sure that you have revised all of this content in preparation for the exam. All questions will be exam-style. In the Year 9 paper there may be extended writing questions (maximum 6 marks). For the exam you will need to bring a calculator, ruler, pen and pencil. You will be provided with a periodic table.

## TIPS FOR REVISING SCIENCE

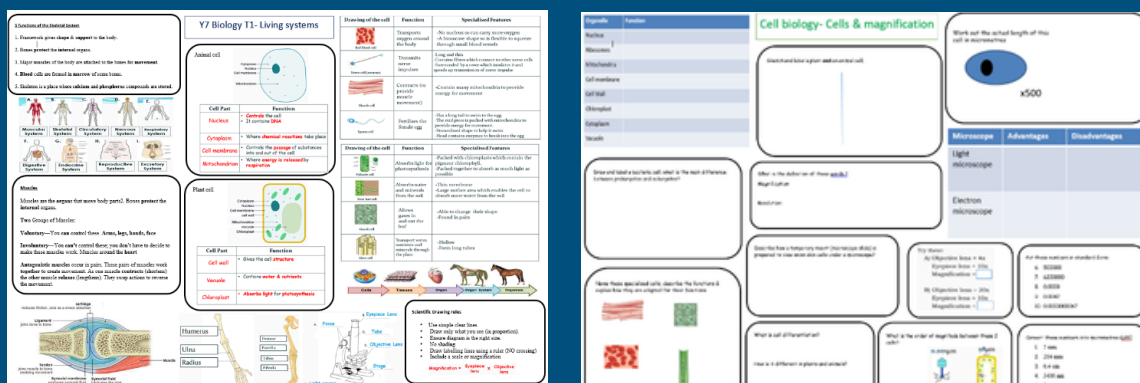
Remember... revision is all about **testing yourself**. Copying out notes is an activity that will not help you revise no matter how wonderful they look. If you make flash cards or mind-maps you must then **test yourself** on these if the knowledge is to embed itself effectively in your long-term memory.

Use your Knowledge Organisers for each of the topics on pages 22-24 and use the **LOOK, COVER, WRITE, CHECK** technique to help memorise the knowledge. You could also get a friend or family member to quiz you on the content of the Knowledge Organiser.

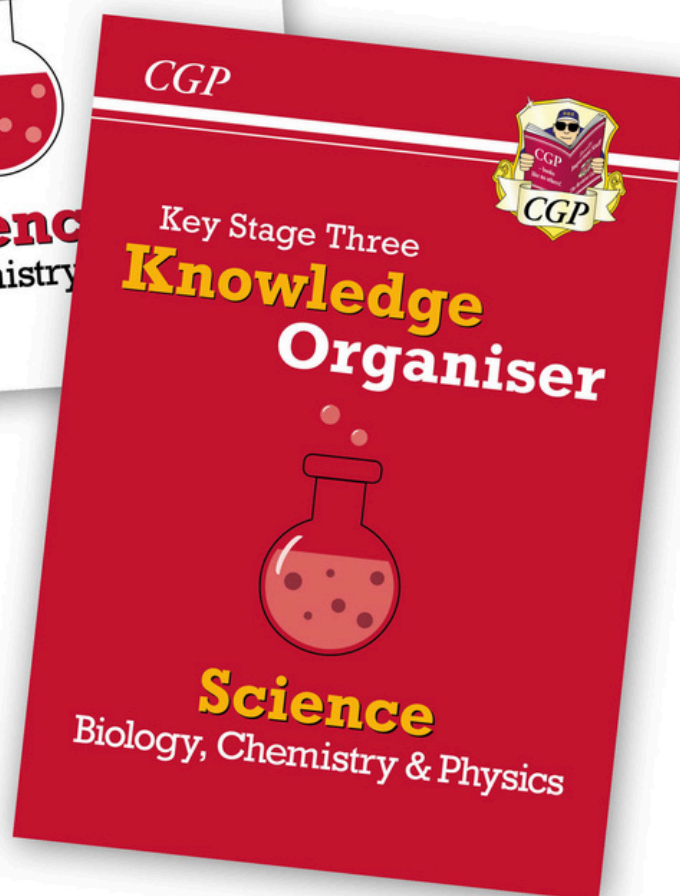
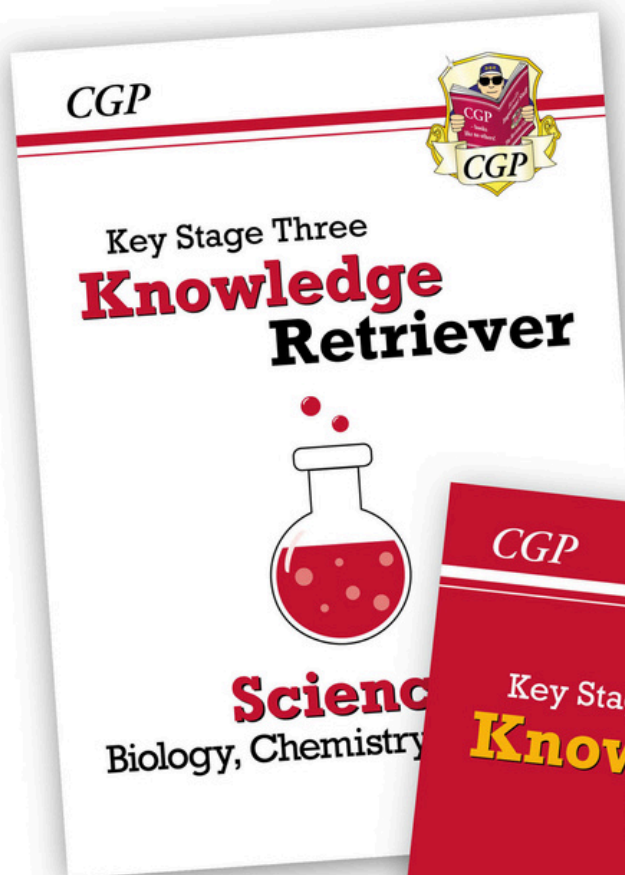
A Seneca assignment will be set for you which covers all of the content for your exam. This assignment will be posted on Class Charts. This is a compulsory assignment. You should aim for >80% on all sections. You do not have to complete the assignment all in one go. If you are having any trouble accessing Seneca please speak to your class teacher. Seneca is an excellent way to test yourself and get yourself prepared for your exam.

## REVISE FROM THE KNOWLEDGE ORGANISERS OR SUMMARY MAPS

Use the **read/cover/write/check** technique on one box at a time from your term 1 knowledge organizers. You can also ask a someone at home to quiz you on these. Please don't waste time copying out your knowledge organizer - remember you have to **test yourself** for your revision to be effective!



# KS3 Knowledge Organisers



You have been given this Knowledge Organiser and Knowledge Retriever with questions relevant to the KS3 Science curriculum. If for any reason you don't have one, please get in touch with your Science teacher.

Use the topic list in this revision guide to find the relevant pages in your red and white books. You should read one box at a time in your red book, then cover it up and try to reproduce it from memory in your white book - this should not be a copying exercise! Once you have done this for a whole page, you can have a second go in your white book, attempting a whole page at a time. Remember to check your use of keywords each time.

# Science topics you need to revise for the exam

## Year 7

### Science

#### Biology

##### TERM 1: LIVING SYSTEMS

- Using microscopes
- Plant & animal cells
- Specialised cells
- Organisation of cells
- The skeletal system
- Muscles



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#### Chemistry

##### TERM 1: STATES OF MATTER & SEPARATING TECHNIQUES

- States of matter
- The particle model
- Changing states
- Pressure & diffusion
- Pure mixtures and solutions
- Filtering & evaporation
- Distillation
- Chromatography



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#### Physics

##### TERM 1: FORCES

- Forces
- Mass & weight
- Balancing forces
- Friction
- Speed
- Distance-time graphs
- Speed-time graphs



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# Year 8

## Science

### Biology

#### TERM 1: BIOENERGETICS

- Photosynthesis
- Gas exchange in plants
- The respiratory system
- Aerobic & anaerobic respiration
- The circulatory system
- Blood vessels
- Effects of exercise



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### Chemistry

#### TERM 1: ACIDS & ALKALIS

- Acids and alkalis
- Hazard symbols
- pH scale and universal indicator
- Acids and metals
- Neutralisation
- Acids and carbonates
- Naming salts
- Uses of acids & alkalis



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### Physics

#### TERM 1: LIGHT & SOUND

- Waves
- Reflection and refraction
- Colours and filters
- Sound
- The ear and hearing
- Ultrasound and infrasound



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### Biology

#### TERM 1: CELLS

- Animal & plant cells
- Microscopy
- Microscopy calculations
- Use of a light microscope
- Specialised animal cells
- Specialised plant cells
- Cell differentiation
- Exchange surfaces
- Surface area to volume ratio



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### Chemistry

#### TERM 1: RATE AND EXTENT OF CHEMICAL CHANGE

- Collision theory
- Calculating rate of reaction
- Concentration theory
- Temperature on rate of reaction
- Surface area
- Catalysts



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### Physics

#### TERM 1: ENERGY

- Energy stores and transfers
- Efficiency
- Work done
- Kinetic and gravitational energy
- Electrical energy
- Power and electrical power



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# Notes

**MY EXAM DATES ARE:**

**ENGLISH:** \_\_\_\_\_

**MATHS:** \_\_\_\_\_

**SCIENCE:** \_\_\_\_\_

**NOTES:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Notes

[illegible]

# Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# Notes

This image shows a full page of blank, lined paper. It features approximately 28 horizontal blue or grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings on the page.

# USEFUL

## CONTACTS



### SUBJECT STAFF

Miss L Melia, Y7/8 Lead for English  
Miss L Penketh, Y9 Lead for English  
Mrs S Doncaster, KS3 Lead for Maths  
Mr J Blackburn, KS3 Lead for Science

### OTHER STAFF

Miss T Taylor, Head of Y7  
Miss N Carrington, Pastoral Manager Y7  
Mr W Barnett, Head of Y8  
Mrs N Purslow, Pastoral Manager Y8  
Mrs S Levy, Head of Y9  
Mrs T Williams, Pastoral Manager Y9

All staff emails have the same format: first initial followed by surname and then @lymmhigh.org.uk

