

# Knowledge Organiser

**Year 8**

Cycle Three

2023-24



Week A	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1					
Period 2					
BREAK TIME					
Period 3					
Period 4					
LUNCH TIME & CANON					
Period 5			Electives 13:30-15:00		
Period 6					

Week B	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1					
Period 2					
BREAK TIME					
Period 3					
Period 4					
LUNCH TIME & CANON					
Period 5			Electives 13:30-15:00		
Period 6					

# Homework Expectations

## Why is homework important?

After extensive research the Education Endowment Foundation states that students who complete regular and purposeful homework can make more than five months additional progress during their time at school and consequently achieve significantly higher grades at GCSE.

## Why is your knowledge organiser important?

A knowledge organiser (KO) sets out the important, useful and powerful knowledge on a topic on a single page (Kirby, 2015). Your KO outlines the key powerful knowledge students need to be successful in the subject for that cycle.

Each week, students will be directed to learn specific parts of their knowledge organisers. This learning is often tested in your 'Do Now' activity.

The secret to success is to regularly revisit core knowledge. This helps transfer the knowledge from the short-term memory to the long-term memory. This not only helps to make it 'stick' but it also frees up our short-term memory for day-to-day learning and experiences.

## What are the homework expectations?

You now complete your homework in a pre-printed Homework Book as opposed to the blue books.

You will have 4-5 hours of homework per week. Sparx Maths will continue to be on Mondays.

You now have three subjects per evening rather than four subjects. See the timetable below.

Complete the page of Cornell notes using the guidance on page 5.

Complete your Sparx Maths workings on the dedicated pages in your Homework Book.

Your completed Homework Book will then be an excellent revision tool ahead of, and during, assessment week. You can cover your notes and work your way through you cue column of quiz questions to test your memory.

## Where can I get help and support with my homework?

- If you find it hard to complete work at home, there is a homework club in the library every day from 15:00-16:30 where teaching assistants are available.
- If you get stuck on a particular question in your homework, you can come at breaktime or lunchtime to G67 where there will be support staff and student prefects to help you ahead of the deadline.
- If you miss the homework deadline, there is a compulsory homework catch-up after school on the same day with support staff.

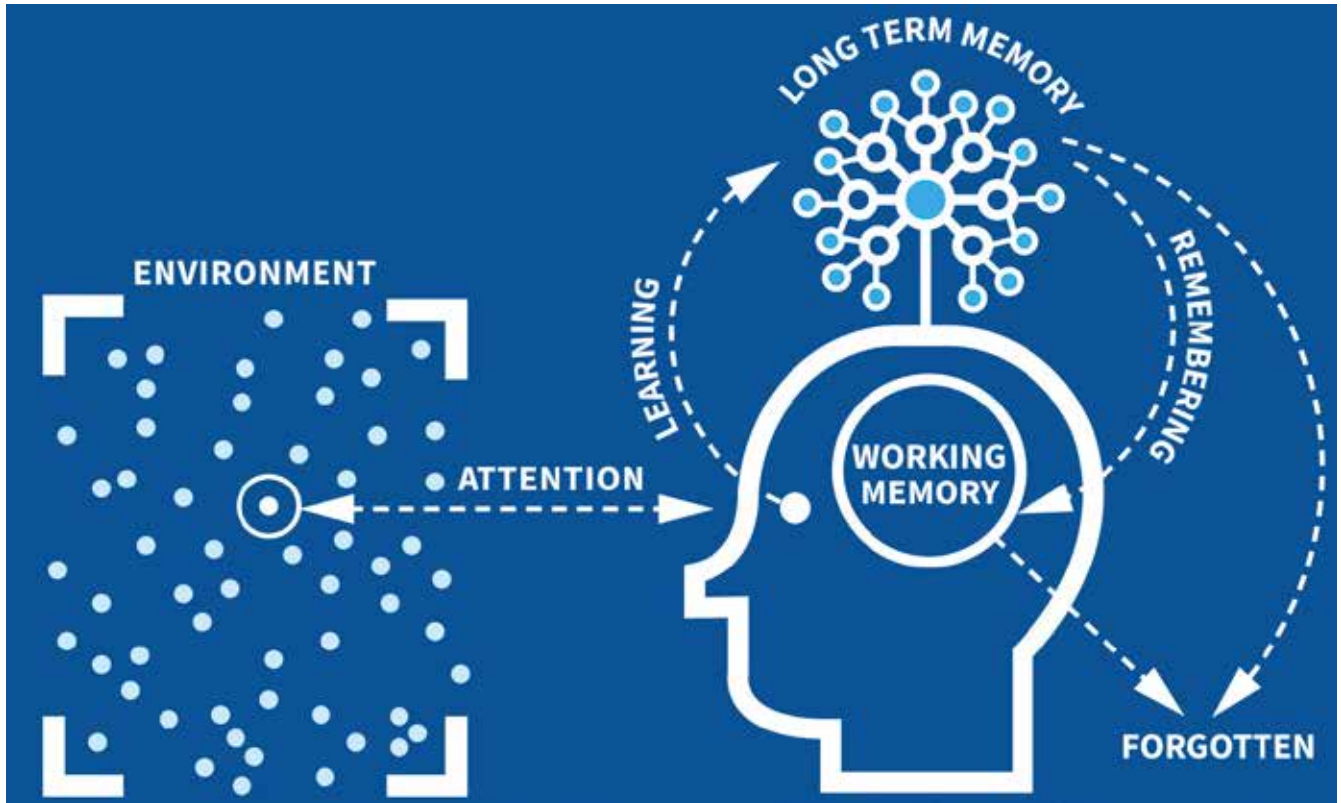
Week A	Subject 1	Subject 2	Subject 3	Subject 4
Monday	French / Spanish	History	Art	
Tuesday				
Wednesday	Sparx Science	Sparx Reader	JBACC	Geography
Thursday	Sparx Maths			
Friday	Sparx Science	English	Technology	

Week B	Subject 1	Subject 2	Subject 3	Subject 4
Monday	French / Spanish	History	Music	Drama
Tuesday				
Wednesday	Sparx Science	Sparx Reader	PE	Geography
Thursday	Sparx Maths			
Friday	Sparx Science	English	Computer Science	

\*Art and Design: in addition to your knowledge organiser work, you will be expected to complete some independent research into various artists and art techniques. This research is very important to get the most out of your learning in Art & Design. Your art teacher will explain what you need to do. This will be checked in your art lesson and not be checked in tutor time.

# This is how you learn

Your mind is split into two parts: the **working-memory** and the **long-term memory**. Everybody's **working-memory is limited**, and therefore it can very easily become overwhelmed. Your **long-term memory**, on the other hand, **is effectively limitless**.



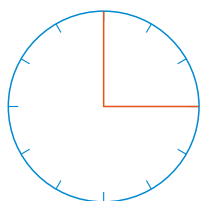
The Learning Model video



**Useful learning strategies to help you to remember knowledge:**

- a. Read - Cover - Write - Check:** Read the section (or week) of your knowledge organiser several times. Cover it so you can no longer see it. Write down as much as you can remember. Check your knowledge organiser again. What information did you recall and what did your memory not retain? Make any corrections and additions using your green pen.
- b. Flashcards** - using an A6 size card/paper, turn the information in your knowledge organiser into a series of questions and then write the corresponding answer on the back of the card. This means that you can test yourself. Simply writing everything on the card would have no impact on your memory and retention of the information.
- c. Flip and fold pages** - This may be useful when you have completed a series of weeks or at the end of the topic. On one page, write down all of your revision notes. Fold the paper in half and create a mind map of the most important information on one side. Fold it again and write all of the key vocabulary on one side. Fold for the final time and draw symbols and icons that would help you to remember the content of your full page.

- d. Elaboration** - For each of the points you are revising, develop them further by asking yourself questions e.g. why would the rainfall be 2000mm? Why might mime be used as a theatrical technique?
- e. Retrieval practice grid** - Many of you would have used these in history. Divide your page into three columns and nice lines. Write questions and answers for your chosen topic. Ask family members and friends to ask you the questions and you give them the answer, focusing on one column at a time. If you get it wrong, they need to tell you the answer and you repeat it. You now need to go back into the top of the column of nine questions and try again until you get them all correct. Move onto the next column. This would be a good grid to build up over the course of the 10 weeks of knowledge organiser homework so that you had one grid per subject!

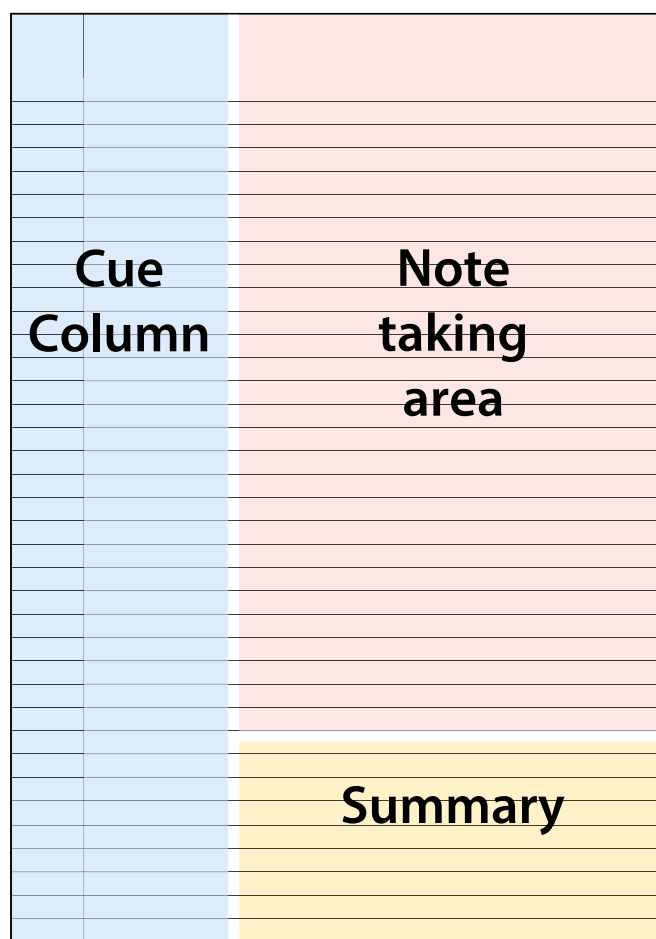


Repeat the processes above until you have spent 15-20 mins per subject per day. For example, repeated practices of 'Read - Cover - Write - Check' would be expected; not just one attempt.

## REMEMBERING: MASTERING YOUR MEMORY

### Cornell Notes

1. Divide your page into three sections like in this diagram.
2. In the note taking area, complete your work normally (if taking notes, try only to write down key information)
3. In the bottom section, summarise all the information in the note taking area into 3 bullet points
4. The Cue Column is where the magic happens - in this area, write a series of quiz questions about the notes you have written.
5. When revising, try to answer the quiz questions in the cue column before you read your notes. If you can do it, well done! You have **remembered** this. If not, you need to **learn** it again.
6. The Summary at the bottom of the page also strengthens the learning. It can be used as a prompt for you too try and remember the knowledge in the note taking area.



### Link to Learning

Cornell Notes are a note taking system that was developed at Cornell University in America.

It is specifically designed to help you initially strengthen your **learning** but perhaps more importantly, build in opportunities to **remember** what you have **learned**.

The Learning Model video



# Stop

STOP

*'They're not bullying you because of you, they're bullying you because of how they are'*

Jessie J

Bullying affects lots of people and can happen anywhere: at school, travelling to and from school, in sporting teams, in friendship or family groups.

**Bullying can take many forms including:**

- emotional abuse
- social bullying
- social media
- threatening behaviour
- name calling
- cyberbullying
- sexting

**Bullying includes REPEATEDLY:**

- people calling you names
- making things up to get you into trouble
- hitting, pinching, biting, pushing and shoving
- taking things away from you
- damaging your belongings
- stealing your money
- taking your friends away from you or leaving you out
- posting insulting messages or rumours, in person online
- threats and intimidation
- making silent or abusive phone calls
- sending you offensive texts or messages

# Speak

*'Blowing out someone else's candles doesn't make yours shine any brighter'*

Drake

**Speak to someone.**

No one has a magic wand, but we always do our best and we do really care.

Telling someone shares the problem. It helps you feel supported.

It is really important to tell someone, particularly if the bullying has been going on for a while or the strategies you've tried haven't worked.



You're **not** alone

Don't be afraid to tell an adult. **Telling isn't snitching!**



# Support

*'You always have to remember that bullies want to bring you down because you have something that they admire'*

Zak Efron

**What we do at St James to deal with bullying:**

- **Mentoring** is having a named person you can go to for support at school. Tutor/HOY/Refocus/Other
- **Restorative justice** brings all children involved together so everyone affected plays a part in repairing the harm and finding a positive way forward.



Any form of bullying will not be accepted at St James.





# The Four Types of Sexual Harassment

## Verbal/Written 1

Verbal or written remarks of a sexual nature about a person's clothing, personal behaviour or body.  
Sexually explicit statements, questions, jokes or anecdotes.  
Requesting sexual acts.  
Spreading rumours about a person's personal or sexual life.  
Coercion of sexual activity by threat or punishment.  
Excessive or unwelcome flirting.

## Physical 2

Impeding or blocking a person's physical movement.  
Inappropriate or unwanted touching or a person and/or their clothing.  
Non-consensual touching, kissing, hugging, patting, stroking or rubbing.  
Playing music or singing sexually offensive or degrading music.  
Purposefully brushing up against another person without consent.

## Non-Verbal 3

Looking a person's body up and down.  
Making derogatory gestures or facial expressions of a sexual nature.  
Frequently following or standing too close to a person on purpose.  
Whistling or staring in a sexually suggestive manner.

## Visual 4

Displaying sexually suggestive objects, images, videos, emojis, cartoons, words or calendars on screen or on physical items.  
Showing other people sexually suggestive text messages or emails.  
Sharing sexually inappropriate images or videos, such as pornography.

Report any incidents of sexual harassment to a member of staff or email

[safeguarding@stjamesexeter.co.uk](mailto:safeguarding@stjamesexeter.co.uk)



# Support available to you

## If you feel at immediate risk of harm call 999 Police

### Safeguarding Concern - Help from our St James Safeguarding Team

You can email: [safeguarding@stjamesexeter.co.uk](mailto:safeguarding@stjamesexeter.co.uk)

If worried/anxious/ or just want to talk contact...

### Food Support

If your family need foodbank vouchers or help with free school meals please email

[foodsupport@stjamesexeter.co.uk](mailto:foodsupport@stjamesexeter.co.uk)

### Self-Isolating Support (families with vulnerable members/with symptoms)

If you need support for picking up prescriptions/ shopping or support for your parents/carers by a community volunteer due to your family self-isolating, please email [foodsupport@stjamesexeter.co.uk](mailto:foodsupport@stjamesexeter.co.uk)

### Mental Health Support Team

If you have concerns over your own or your family's mental health of you own or your family. Please complete a referral on additional form or call **07866159124**

### MASH

If you have any safeguarding concerns about a child, you can call MASH on **0345 155 1071**

### Childline

**0800 1111**

[www.childline.org.uk](http://www.childline.org.uk)

Free, 24-hour telephone helpline for children and young people anywhere in the UK. Get help and advice about a wide range of issues, talk to a counsellor online, send Childline an email or post on the message boards.

### The Mix

**0808 808 4994**

[www.themix.org.uk](http://www.themix.org.uk)

Essential support for under 25s. Phone, Email, Web support and Counselling.

[www.themix.org.uk/get-support/speak-to-our-team/crisis-messenger](http://www.themix.org.uk/get-support/speak-to-our-team/crisis-messenger) - The Mix's Crisis Messenger text service is available 24/7 and open to anyone aged 25 or under living in the UK.

If you're in crisis and need to talk, text **THEMIX to 85258**

### Samaritans:

Helpline: **116 123**

Email [jo@samaritans.org](mailto:jo@samaritans.org)

[www.samaritans.org](http://www.samaritans.org)

24hr service offering emotional support

### Runaway Helpline:

**116 000**

Email - [116000@runawayhelpline.org.uk](mailto:116000@runawayhelpline.org.uk)

[www.runawayhelpline.org.uk](http://www.runawayhelpline.org.uk)

Runaway Helpline is here if you are thinking about running away, if you have already run away, or if you have been away and come back. You can also contact the Helpline if you are worried that someone else is going to run away or if they are being treated badly or abused. You can call or text for free, 24 hours a day. It's all confidential.



## Shout

is an affiliate of Crisis Text Line® in the UK that provides free, confidential support, 24/7 via text. It's a free 24/7 texting service in the UK for anyone in crisis anytime. Text **85258**

## Kooth

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

Free, safe and anonymous support for young people.

Monday - Friday 12pm-10pm

Saturday - Sunday 6pm - 10pm

## YMCA - Children and Young People's Wellbeing Service

Wellbeing Practitioners provide uses CBT (Cognitive Behavioural Therapy) techniques and goal-setting to build up emotional wellbeing and resilience in young people and their families.

Self-referral:

<https://www.ymcaexeter.org.uk/cwpwellbeing/>

## Young Devon

Young Devon run a homelessness prevention scheme in Exeter; they can help 16 & 17yr olds and care leavers.

**01392 331666** and ask to speak to the Homeless Prevention Team or email

[yes.exeter@youngdevon.org](mailto:yes.exeter@youngdevon.org)

If you are under 18 call the Social Service Emergency Duty team **0345600 0388**

## Online support and advice:

<https://www.thinkuknow.co.uk/>

## Safeguarding/Welfare Concern

If students would like to report a Welfare or Safeguarding Concern to our Safeguarding Team, they can click on this link or follow the QR code: <https://forms.office.com/r/2DD9tAu7tN>

## Write a Statement

If students would like to report an incident to our Pastoral Support Team, they can click on this link: <https://tinyurl.com/5ct25wus>

# Online Support and Advice

- **Think before you post**

Don't upload or share anything you wouldn't want your parents, carers, teachers or future employers seeing. Once you post something, you lose control of it, especially if someone else screenshots or shares it.

- **Don't share personal details**

Keep things like your address, phone number, full name, school and date of birth private, and check what people can see in your privacy settings. Remember that people can use small clues like a school logo in a photo to find out a lot about you.

- **Watch out for phishing and scams**

Phishing is when someone tries to trick you into giving them information, like your password. Someone might also try to trick you by saying they can make you famous or that they're from a talent agency. Never click links from emails or messages that ask you to log in or share your details, even if you think they might be genuine. If you're asked to log into a website, go to the app or site directly instead.

- **Think about who you're talking to**

There are lots of ways that people try to trick you into trusting them online. Even if you like and trust someone you've met online, never share personal information with them like your address, full name, or where you go to school. Find out more about grooming.

- **Keep your device secure**

Make sure that you're keeping your information and device secure.

**More information can be found on our website:** <https://www.stjamesexeter.co.uk/about/safeguarding/>

## Reporting a safeguarding concern



## Write a statement





## CHUCK CLOSE *Facing Challenges*

### Facing a challenge

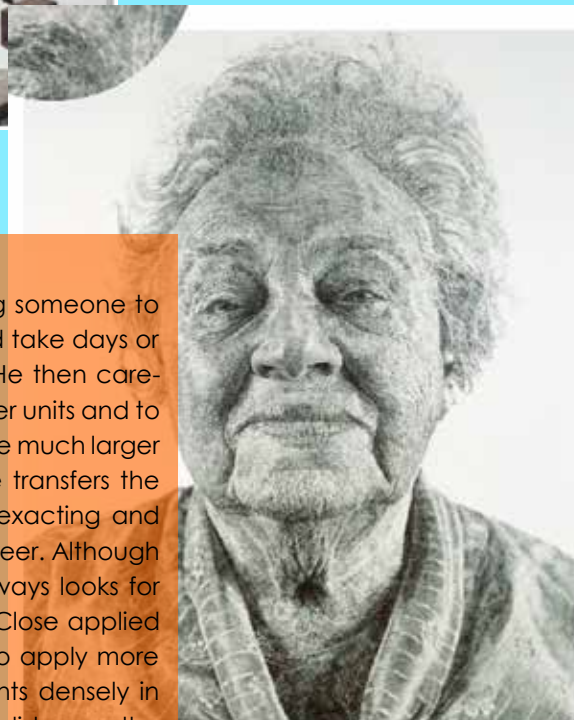
American artist Chuck Close is famous for painting giant portraits of heads. He's also well known for facing some big challenges in his life. Chuck Close suffers from the neurological disorder Prosopagnosia, or face-blindness, which impairs his ability to recognize faces. Growing up Close had severe learning disabilities that made it difficult for him to read. His ability and tenacious attitude for drawing and painting helped him to compensate for his struggles in other subjects. He impressed his teachers by creating elaborate art projects to show he really was interested in his school subjects. In 1988, Close suffered a severe spinal artery collapse. As a result, he has only partial use of his arms and legs, and he has to rely on a wheelchair. He now uses a chair lift and motorized easel that raises, lowers, and turns the canvas to allow him to work on all parts of a painting.



*"Almost every decision I've made as an artist is an outcome of my particular learning disorders. I'm overwhelmed by the whole. How do you make a big head? How do you make a nose? I'm not sure! But by breaking the image down into small units, I make each decision into a bite-size decision."*

### How Does He Do It?

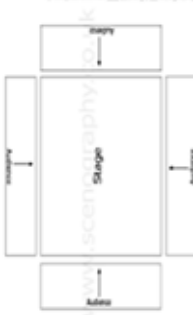
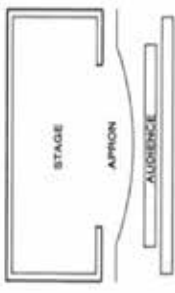
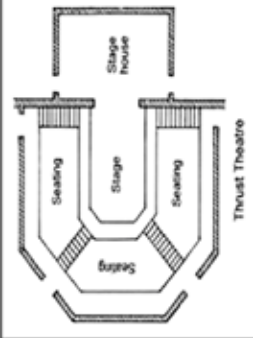
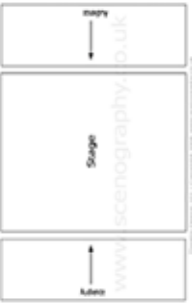
Close typically starts with a photograph. Instead of asking someone to sit in front of him while he paints, a slow process that could take days or months, Close takes several photographs of his subject. He then carefully selects one photo. He uses a grid to divide it into smaller units and to maintain the proportional scale between the photo and the much larger canvas. Often applying a grid to the canvas as well, he transfers the image square by square from photo to canvas. It's an exacting and painstaking process that Close has used throughout his career. Although Close continues to employ his photo-grid process, he always looks for new challenges. He even used fingerprints! For 'Frances', Close applied the paint to the canvas with his fingers, pressing harder to apply more pigment and pressing lightly for less. He placed fingerprints densely in some places and more sparingly in other areas. From a distance, the painting looks like a black-and-white photograph; up close her face dissolves into a sea of fingerprints



Year 8 Computing Cycle Three - Cyber Security

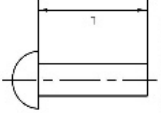
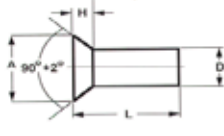
Week 1	Week 2	Week 3	Week 4	Week 5
<p>Data is raw facts and figures</p> <p>Data becomes information when it is given context and meaning.</p> <p>Data has become incredibly valuable to big companies. They can use it to form an idea about you as an individual and then market things to you with greater accuracy.</p> <p>Types of data that can be collected:</p> <ul style="list-style-type: none"> <li>» Personal info: Name, date of birth</li> <li>» Content: Images, status updates, emojis created</li> <li>» User behaviour: What pages you visited, groups you are a member of, what you have 'liked'</li> <li>» Data you have on others: Names of your friends and their numbers</li> </ul> <p>Laws that exist to protect your data:</p> <ul style="list-style-type: none"> <li>» Data Protection Act 2018</li> <li>» General Data Protection Regulation (GDPR)</li> </ul>	<p>Social engineering is a set of methods to deceive individuals into handing over information that they can use for fraudulent purposes.</p> <p>Phishing: A phishing attack is an attack in which the victim receives an email disguised to look as if it has come from a reputable source, in order to trick them into giving up valuable data.</p> <p>Blagging: An attack in which the perpetrator invents a scenario in order to convince the victim to give them data or money.</p> <p>Name Generator attacks: These are attacks in which the victim is asked to combine a few pieces of information or complete a short quiz to produce a name.</p> <p>Shouldering: Is an attack designed to steal a victim's password or other sensitive data. It involves the attacker watching the victim while they provide sensitive information.</p>	<p>Hacking is: Gaining unauthorised access to or control of a computer system</p> <p>DOS: This is a cyber attack when a criminal makes a computer system unusable for other people, by spamming it with requests until it crashes.</p> <p>DDoS: The same concept as DOS, except its many computers attacking rather than one.</p> <p>Brute Force attack: This is a form of attack that makes multiple attempts guess a users account information.</p> <p>White hat: White hat hackers choose to use their powers for good rather than evil.</p> <p>Black hat: Use their knowledge of hacking to break the law, for personal gain or just for fun.</p> <p>Grey hat: Grey hat hackers are a blend of both black hat and white hat activities.</p>	<p>Malicious software or Malware, is software that is designed to gain access to your computer with malicious intent.</p> <p>Malicious intent includes:</p> <ul style="list-style-type: none"> <li>» Disabling hardware</li> <li>» Data theft</li> <li>» Forced advertising</li> <li>» Sending email spam</li> <li>» Extorting money</li> <li>» Malware</li> </ul> <p>Categories of malware include:</p> <ul style="list-style-type: none"> <li>» Viruses</li> <li>» Trojans</li> <li>» Worms</li> <li>» Adware</li> <li>» Spyware</li> <li>» Ransomware</li> </ul> <p>Bots are automated programs that perform tasks repeatedly.</p> <p>Bots are a crucial part of the internet's infrastructure and perform useful tasks</p>	<p>You can protect yourself from Cyberattacks with a variety of methods;</p> <ul style="list-style-type: none"> <li>» Firewalls: A firewall checks incoming and outgoing network traffic. It scans the data to make sure it doesn't contain anything malicious and that it follows the rules set by the network.</li> <li>» Anti-malware: Anti-malware is software that scans any file that is able to execute code. The anti-malware will have a list of definitions of sequences of code that they are aware are malicious.</li> <li>» Auto-Updates: Auto-updates refers to software that automatically checks for available updates for the software you have on your computer.</li> <li>» User authentication: Having users enter usernames and passwords to prevent unauthorised access.</li> </ul>

Year 8 Drama Cycle Three

Week 1	Week 3	Week 5	Week 7	Week 9
<p><b>KEYWORDS</b></p> <p><b>Devising</b> is the creation of an original performance.</p> <p><b>Stimulus:</b> A stimulus is something that an actor will create their piece of work from. This can be a picture, poem, music, words etc.</p> <p><b>Theme:</b> A theme of a piece of drama is what it is truly about at its core. Recurring topic</p> <p><b>Practical exploration:</b> What the actor does to get their ideas moving</p> <p><b>Monologue:</b> A long speech from a character to the audience to reveal inner thoughts and feelings</p> <p><b>Dialogue:</b> The spoken word of characters in a script</p> <p><b>Climax:</b> The height of the drama, everything builds to this point- it is dramatic and exciting</p> <p><b>Cross cutting:</b> When 2 scenes happen on the stage at the same time normally in different locations</p> <p><b>Narration:</b> Spoken word which gives the audience more information about the scene</p> <p><b>Flashback/Flash forward:</b> When the timing of the story travels back to the past or into the future</p> <p><b>Brief:</b> an outline of a performance requirements</p> <p><b>Target Audience:</b> Who a performance is aimed at</p>	<p><b>ELEMENTS OF DRAMA</b></p> <p><b>Lighting:</b> Can be used to draw focus to the character, section of story, atmosphere or to highlight something in the scene</p> <p><b>Props:</b> Any object in the scene which is used by an actor but not part of the costume or set</p> <p><b>Costume:</b> The clothing worn by an actor to reveal things about their character</p> <p><b>Sound &amp; Music:</b> This could be song, singing, sound effects and percussion. Can be used for dramatic effect and creating atmosphere.</p> <p><b>Make Up:</b> Enhances the features of the performer so audience can connect with them anywhere in the audience</p> <p><b>Set:</b> The space where the performance takes place and can give an indication of physical location</p>	<p><b>STAGE CONFIGURATIONS</b></p> <p><b>In the round:</b></p>  <p><b>Proscenium arch:</b></p>  <p><b>Thrust stage:</b></p>  <p><b>Traverse stage:</b></p> 	<p><b>Blocking:</b> Planning out where the actors will move around the stage, and planning out physical and vocal skills in the drama</p> <p><b>Using stage areas:</b> Using the different areas of the stage can show the audience how important a scene is, or it can show the relationship of characters.</p> <p><b>Forum Theatre:</b> Forum theatre encourages audience interaction and explores different options for dealing with an issue.</p> <p><b>Dress rehearsal:</b> A dress rehearsal is where the actors will rehearse their performance while in costume, make up. This helps them plan out where and when they will need their costumes.</p> <p><b>Tech rehearsal:</b> A technical rehearsal is where the actors, director, lighting crew and sound crew rehearse the performance before the first live performance.</p>	<p><b>PERFORMANCE SKILLS</b></p> <p><b>Physical characterisation skills</b> - All the ways the actor changes their body to portray their character (posture, gestures, gait, facial expressions).</p> <p><b>Vocal Characterisation skills</b> - The way the actor changes their voice to show their character (pitch, pace, pause, volume, accent).</p> <p><b>Projection:</b> Using the correct vocal technique to ensure everything is heard by the audience.</p> <p><b>Proxemics:</b> Using the space to non verbally tell the audience things about the character.</p> <p><b>Learning lines:</b> Ensuring the actors knows their lines and cues so the pace is engaging.</p> <p><b>Focus and clarity:</b> Ensuring all dialogue and actions are as exaggerated and clear as possible.</p>

Year 8 Engineering Design & Technology Cycle Three

ROTATION 2 - Moved from Photography at Feb 1/2 term

Week 2	Week 4	Week 6	Week 8	Week 10
<p><b>KNOW YOUR WORKSHOP SAFETY</b></p> <p>Make sure you always follow the rules of the workshop.</p> <p>Wear goggles on machines and when hammering</p> <p>Only use a machine when you are confident, have permission and have seen a demonstration to use it</p> <p>Wear an apron</p> <p>Tie you hair back</p> <p>Do not run in the workshop</p> <p>Only the person using the machine should stand in the yellow/black safety area</p> <p>Always switch a machine off and wait for it to slow down after use</p> <p>Do not shout in the workshop</p> <p>Do not talk when you are using a machine</p> <p>Remove loose clothing and jewellery</p>	<p><b>KNOW HOW TO CREATE AND FORM METAL IN THE WORKSHOP</b></p> <p><b>Templates</b> - a shaped piece of material used as a pattern for processes such as cutting out, shaping, or drilling.</p> <p><b>Jigs</b> - a device that holds a piece of work and guides the tool operating on it. Used for drilling, bending and many other things</p> <p><b>Wasting</b> - when you cut out a shape, file it, drill it etc you are wasting because you produce waste. That makes a saw for example a wasting tool.</p>	<p><b>KNOW YOUR FIXING HEADS</b></p> <p>We form rivets in this project but these head shapes are available in screws, bolts and rivets.</p> <p>Snap Head Dome shaped, sticks out from the surface</p>  <p>Countersunk Head Sits flush with the surface, Needs pre-drilling</p>  <p>There are many other screw head shapes including Pan head and cheese head.</p>	<p><b>KNOW ABOUT CAD</b></p> <p>CAD stands for Computer Aided Design. Designers and Engineers use CAD to draft, design and develop ideas</p> <p>2D CAD is good for layout, graphic design and web design. It also used which can run laser cutters and other 2D CAM machines.</p> <p>3D CAD modelling is used model and develop products and components by designers and engineers. It helps to visualise the designs and check for errors. It even allows you to test and simulate where parts may fail in use.</p> <p><b>KNOW ABOUT CAM</b></p> <p>CAM stands for Computer Aided Manufacture.</p> <p>CAM allows for the consistently accurate machining of parts and products.</p> <p>These can be subtractive techniques where you remove material from a block or additive techniques like 3D printing where you build up a part in thin layers.</p>	<p><b>ADVANTAGES OF CAD/CAM</b></p> <ul style="list-style-type: none"> <li>» More consistent accuracy.</li> <li>» Increased speed for large numbers.</li> <li>» Lower wages as less staff needed.</li> <li>» Ease of development of new designs/editing</li> <li>» High skilled workers needed to oversee machines.</li> <li>» Products should be of increased quality.</li> <li>» Products are able to be produced more quickly</li> </ul> <p><b>DISADVANTAGES OF CAD/CAM</b></p> <ul style="list-style-type: none"> <li>» Equipment can be expensive to buy and set up.</li> <li>» Lower numbers of workers needed so possible job losses.</li> <li>» System relies on good IT equipment.</li> <li>» Some hand skills will be lost.</li> </ul>

Year 8 Engineering Design & Technology Cycle Three - Pictures for week 2-10



MAKE SURE YOU KNOW WHAT ALL THESE TOOL ARE CALLED



Below are topics from Cycle 2 KO that will come up in your end of Cycle 3 assessment. Use your C2 KO to help identify the tools if you have forgotten.

**KNOW YOUR METALS**

Ferrous metals contain iron and non-ferrous metals do not.

KEY FE METALS  
STEEL

CAST IRON  
CARBON STEEL

KEY NON FE METAL

COPPER

ALUMINIUM

TIN

ZINC

LEAD

TITANIUM

**KNOW YOUR ALLOYS**

An alloy is defined as metal made by combining two or more metallic elements, especially to give greater strength or resistance to corrosion.

KEY ALLOYS  
STAINLESS STEEL  
(IRON, Ca & CHROME/NICKEL)

BRASS

(COPPER & ZINC)

BRONZE

(COPPER & TIN)

YOU MIGHT LIKE TO USE AND RECORD THE EXAMPLES ON THE FOLLOWING PAGE TO HELP YOU.

**KNOW YOUR HAND TOOLS**

HACK SAW/ Junior HACKSAW - for cutting metal by hand.

It has very fine , hard teeth so it can cut through most workshop materials.

ENGINEERS VICE - Used to clamp your work-piece when you are using metal or other hard materials.

FILES - For removing smaller amounts and preparing surfaces.

Use next page to record all the sections of files that are available

YOU MIGHT LIKE TO DRAW AND LABEL THE DIAGRAMS ON THE FOLLOWING PAGE TO HELP YOU

**KNOW HOW TO MARK OUT METAL**

SAWS, FILES etc are all 'wasting' tools so they produce waste when used i.e. METAL SWARF/FILINGS. Cut on the waste side of the line.

To measure and mark out accurately in the workshop you should use a SCRIBER, an ENGINEERS TRI SQUARE and a STEEL RULE.

Drill centres should all be marked using a CENTRE PUNCH and BALL PEIN HAMMER on the back of an ENGINEERS VICE.

YOU MIGHT LIKE TO DRAW AND LABEL THE DIAGRAMS ON THE FOLLOWING PAGE TO HELP YOU

Year 8 English Cycle Three - Animal Farm

<p><b>Week 1</b> <b>Context, Plot &amp; Vocabulary</b></p>	<p>'Animal Farm' was written in 1945. It was written by George Orwell. Orwell was born in 1903.</p>	<p><b>Chapter One</b> The animals gather to listen to old Major. He gives them a vision of a life without man.</p>	<p><b>Allegory</b> – a story with two meanings. It has a literal meaning, which is what actually happens in the story. But it also has a deeper meaning. The deeper meaning is often a moral. It teaches you a lesson about life.</p>
<p><b>Week 2</b> <b>Context, Plot &amp; Vocabulary</b></p>	<p>'Animal Farm' was influenced by the events of World War II. Orwell wanted to write about the cruel leaders of Europe during World War II. 'Animal Farm' is an allegory for the events of the Russian Revolution.</p>	<p><b>Chapter Two</b> The animals rebel and overthrow Jones. The commandments are written.</p>	<p><b>Tyrant</b> – someone who has total power and uses it in a cruel and unfair way. A tyranny is a situation in which a leader or government has too much power and uses that power in a cruel and unfair way.</p>
<p><b>Week 3</b> <b>Characters, Plot &amp; Vocabulary</b></p>	<p>Napoleon – 'a large, rather fierce-looking Berkshire boar, the only Berkshire on the farm, not much of a talker, but with a reputation for getting his own way.' Snowball – 'a more vivacious pig than Napoleon, quicker in speech and more inventive, but was not considered to have the same depth of character.'</p>	<p><b>Chapter Three</b> The animals' first harvest is a success. The pigs keep the milk and apples to themselves.</p>	<p><b>Rebellion</b> – a rebellion is a situation in which people fight against those who are in charge of them.</p>
<p><b>Week 4</b> <b>Characters, Plot &amp; Vocabulary</b></p>	<p>Squealer – 'with very round cheeks, twinkling eyes, nimble movements, and a shrill voice. He was a brilliant talker, and when he was arguing some difficult point he had a way of skipping from side to side and whisking his tail, which was somehow very persuasive. The others said of Squealer that he could turn black into white.'</p>	<p><b>Chapter Four</b> The Battle of the Cowshed; Jones attempts to reclaim the farm.</p>	<p><b>Harvest</b> – the time when crops are cut and collected from fields.</p>
<p><b>Week 5</b> <b>Characters, Plot &amp; Vocabulary</b></p>	<p>Boxer – 'an enormous beast, nearly eighteen hands high, and as strong as any two ordinary horses put together. . . in fact he was not of first-rate intelligence, but he was universally respected for his steadiness of character and tremendous powers of work.'</p>	<p><b>Chapter Five</b> Snowball and Napoleon debate the windmill. Napoleon uses dogs to chase Snowball from the farm. Napoleon makes himself leader.</p>	<p><b>Corrupt</b> – when people use their power in a dishonest way order to make life better for themselves.</p>

## Year 8 English Cycle Three - Animal Farm

<p><b>Week 6</b> <b>Plot &amp; Vocabulary</b></p>	<p><b>Chapter Six</b> Work begins on the windmill. The pigs move into the farmhouse. Winds destroy the windmill.</p>	<p><b>Propaganda</b> - Information that is meant to make people think a certain way. The information may not be true.</p>	<p><b>If you have time, revise the context information from Weeks 1 &amp; 2.</b></p>
<p><b>Week 7</b> <b>Plot &amp; Vocabulary</b></p>	<p><b>Chapter Seven</b> Work on the windmill starts again. Napoleon demands eggs from the hens. Napoleon slaughters animals at the show trials.</p>	<p><b>Cult of personality</b> - a cult of personality is where a leader convinces people to worship him or her and treat them like a god.</p>	<p><b>If you have time, revise the vocabulary from Weeks 1-3.</b></p>
<p><b>Week 8</b> <b>Plot &amp; Vocabulary</b></p>	<p><b>Chapter Eight</b> Napoleon betrays Mr. Pilkington and sells timber to Mr. Frederick. Frederick pays with counterfeit money. Frederick attacks the farm. The animals suffer losses in the Battle of the Windmill. The windmill is destroyed.</p>	<p><b>Treachorous</b> - If you betray someone who trusts you, you could be described as treacherous.</p>	<p><b>If you have time, revise the vocabulary from Weeks 4-7.</b></p>
<p><b>Week 9</b> <b>Plot &amp; Revision</b></p>	<p><b>Chapter Nine</b> Boxer is sold to the knacker's yard.</p>	<p><b>Revise the content from weeks 1-4.</b></p>	
<p><b>Week 10</b> <b>Plot &amp; Revision</b></p>	<p><b>Chapter Ten</b> The pigs are leaders on the farm. They start walking on two legs and carrying whips. There is no difference between the pigs and the humans they sought to overthrow at the start of the novel.</p>	<p><b>Revise the content from week 5 onwards.</b></p>	



Year 8 French Cycle Three - Key Verbs

WEEK 1

sortir - to go out, going out  
 nous sortons - we go out / are going out  
 vous sortez - you (pl) go out / are going out  
 venir - to come, coming  
 nous venons - we come / are coming  
 vous venez - you (pl) come / are coming  
 sans - without  
 s'il te plaît - please  
 s'il vous plaît - please (formal)  
 possible - possible  
 seul - alone  
 salut - hi  
 le papa - dad  
 la maman - mum

WEEK 2

choisir - to choose, choosing  
 réussir - to pass, passing (an exam)  
 remplir - to fill, filling  
 définir - to define, defining  
 le blanc - gap, blank  
 l'examen - exam  
 le lycée - high school  
 la note - mark  
 le cahier - exercise book  
 alors - so, well, then

WEEK 3

finir - to finish, finishing  
 nourrir - to feed, feeding  
 le chat - cat  
 le dimanche - Sunday  
 le lundi - Monday  
 le mardi - Tuesday  
 le mercredi - Wednesday  
 le jeudi - Thursday  
 le vendredi - Friday  
 le samedi - Saturday  
 l'heure (f) - hour  
 la minute - minute

WEEK 4

le feu - fire  
 les feux - fires  
 l'hôpital (m) - hospital  
 les hôpitaux - hospitals  
 le jeu - game  
 les jeux - games  
 le journal - newspaper  
 les journaux - newspapers  
 l'oiseau (m) - bird  
 les oiseaux - birds  
 le réseau - network  
 les réseaux - networks

WEEK 4

idéal - ideal (m)  
 idéale - ideal (f)  
 idéaux - ideal (mpl)  
 international - international (m)  
 internationale - international (f)  
 internationaux - international (mpl)  
 local - local (m)  
 locale - local (f)  
 locaux - local (mpl)  
 social - social (m)  
 sociale - social (f)  
 sociaux - social (mpl)  
 autre - other  
 même - same  
 plusieurs - several

WEEK 6

l'Italie (f) - Italy  
 l'italien (m) - Italian language  
 italien - Italian nationality (m)  
 italienne - Italian nationality (f)  
 plus - more  
 moins - less  
 aussi - also, as  
 que - than, that, what?  
 mince - thin

WEEK 7

dangereux - dangerous (m)  
 dangereuse - dangerous (f)  
 gentil - kind (m)  
 gentille - kind (f)  
 gros - fat (m)  
 grosse - fat (f)  
 meilleur - better  
 pire - worse  
 sûr - safe (m)  
 sûre - safe (f)

WEEK 8

la décision - decision  
 le soin - care  
 dur - hard (m)  
 dure - hard (f)  
 facilement - easily  
 lentement - slowly  
 mal - badly  
 mieux - better  
 vite - quickly  
 l'Espagne (f) - Spain  
 espagnol (m) - Spanish language  
 espagnole - Spanish nationality (m)  
 espagnole - Spanish nationality (f)

WEEK 9

dépendre - to depend, depending  
 dépendre de - to depend on, depending on  
 entendre - to hear  
 répondre - to answer, answering  
 répondre à - to answer someone, answering someone  
 l'annonce (f) - announcement  
 la conversation - conversation  
 le message - message  
 le soleil - sun  
 le temps - time, weather

WEEK 10

Revision of Cycle 3 Vocabulary

Year 7 Geography Cycle Three Knowledge Organiser

Key vocabulary

- Processes of Erosion:
- Abrasion:** Material carried by the river hits the sides and bed breaking bits off.
- Attrition:** Rocks and stones bang against each other chipping bits off.
- Hydraulic action:** The force of water pushing into cracks in the rock, breaking bits off.
- Corrosion/Solution:** Rocks dissolving in the water. Rivers then transport this material through;
- Suspension:** water carrying fine particles.
- Solution:** Dissolved material being carried in water.
- Traction:** Boulders and rocks rolling along the bed.
- Saltation:** Small pebbles and stones bouncing along.

Week 1 - Drainage Basin

A river is water flowing downhill in a channel. Much of the landscape has been shaped by rivers. A **drainage basin** is an area of land which feeds a river. All of the precipitation that falls in this area will into the river system. Within the drainage basin you find the following features; **Watershed:** the outer edge of the drainage basin. **Channel:** A landform that contains a river at the bottom of a valley. **Source:** The start of the river. **Tributary:** A small river that joins a larger river. **Confluence:** The point where two rivers join. **Mouth:** The point where the river enters the ocean.

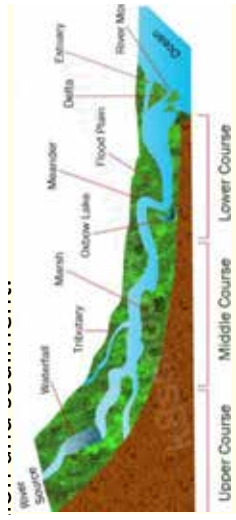


Week 2 - Upper Course

Most rivers share similar characteristics in gradient (steepness) and shape and are split into three sections; **Upper, middle and lower course.** The upper course is usually steep with the water having a lot of energy. This causes vertical erosion resulting in steep valley sides and a narrow valley floor. This is called a **V-shaped valley.** The river winds its way through the hills but does not have the power to cut through them so leaves bit of land sticking from the valley sides. These are called **interlocking spurs.** Another feature of the upper course are **waterfalls** which form where there is hard and soft rock. Soft rock is eroded more easily, leaving an overhang of hard rock. As the soft rock erodes further a plunge pool is created.

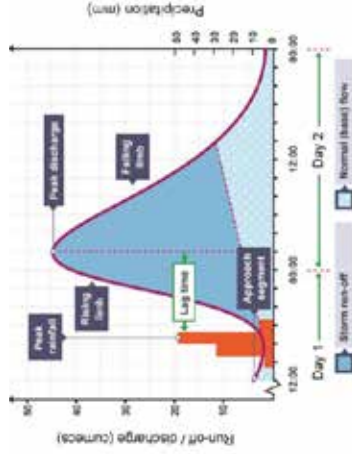
Week 3 - Middle - Lower Course

In the middle course the river has more energy and a high volume of water. The gradient here is gentle and lateral erosion has widened the river channel. The river channel has also deepened. **Meanders** form and slowly move across the landscape due to lateral erosion. Eventually the channel cuts through leaving an **ox-bow lake.** In the lower course, the river channel is now deep and wide and the landscape around it is flat. The energy of the water is low so lots of deposition takes place and **floodplains**, areas that regularly flood and **estuaries** form. In the lower course, the velocity of the water is the fastest due to less friction and sediment.



Week 4 - Hydrographs

**Discharge:** The amount of water flowing through a river. A hydrograph shows two graphs - a bar chart showing rainfall, usually from a storm and a line graph showing discharge from before, during and after the rain storm. A **hydrograph** shows how a river is affected by a storm and how long it takes rainwater to enter the river system.



Week 5 - Flooding

A river floods when the water normally flowing in the channel overflows its banks and spreads out onto the surrounding land. This causes major problems for people living close to the river. Physical causes of flooding: heavy rainfall, long periods of rain, snowmelt, steep slopes, **impermeable** rock (doesn't allow water through), very wet, saturated soils, **compacted** or dry soil. Human factors increasing flood risk: **Urbanisation** - because towns and cities have more **impermeable** surfaces. **Deforestation** - because removing trees reduces the amount of water **intercepted** and increases **runoff**.

Year 7 Geography Cycle Three Knowledge Organiser

Key vocabulary

**Fair Trade:** Fairtrade means that the producer receives a guaranteed and equitable price for their product regardless of the price on the world market.  
**Sustainable:** To meet the needs of the present without compromising future generations meeting their own needs.



Week 6 - Boscastle

**Boscastle** is a small coastal settlement in the south west of England. It flooded in August **2004**, washing cars and buildings into the sea and putting peoples' lives in danger.  
**Causes:** Heavy localised rainfall - 89 mm of rain fell in an hour and saturated ground from previous rainfall. The landscape upstream of Boscastle, a steep-sided valley, acted as a funnel directing vast volumes of water into the village. Narrow river channels in the village itself.  
**Responses:** £4.5 million has been spent on a flood defence scheme and includes better drainage, sewerage and land regrading. The car park has been raised in height and acts as a barrier. The river channel has been made deeper and wider so it can hold more water.

Week 7 - Bangladesh

**Bangladesh (LIC)** in Asia and it is frequently affected by flooding. In **2007**, flooding made 9 million people homeless & approximately 1,000 people died from drowning and diseases. **Causes:** Cyclones cause coastal flooding, low-lying land, melt water from the Himalayas, deforestation, monsoon rains and increasing urbanisation. **Immediate responses:** Food aid from the Government and other countries; water purification tablets, repairing embankments, rescuing people, seeds given to farmer whose crops were destroyed. **Long-term responses:** Building embankments, building raised flood shelters, flood warning systems, emergency planning, dams planned and deforestation reduced.

Week 8 - Ethiopia

Population: **111 million people (2021)**  
 Capital: **Addis Ababa** with 5 million inhabitants.  
 The country is located on the African continent in a central and eastern position on the **Horn of Africa**. Ethiopia is a **landlocked** country and its six neighbouring countries.  
 The country entirely lies within the tropical latitudes, thus the lowlands have **tropical savannah** or **desert climate** while the higher mountain plateau experiences a more temperate climate.  
 The lowest point in Ethiopia is the **Danakil Depression** which is 125 m/ 410 ft below sea level. This is the hottest place on our planet, considering the average annual temperature!

Week 9 - The Blue Nile

Ethiopia's longest river is the **Blue Nile**.  
 The river has a length of 2,574 m or 8,444 ft and originates in Lake Tana. Ethiopia's largest inland lake is **Lake Tana**.  
 Ethiopia has built the **Grand Ethiopian Renaissance dam GERD**, a \$4.5bn (£3.6bn) mega-project on the Blue Nile river that runs from Lake Tana in Ethiopia to meet the White Nile in Khartoum, flowing north into Egypt.



Week 10 - Fair Trade

Ethiopia is one of the poorest countries in the world.  
 The economy in Ethiopia is mainly driven by **agriculture** and fisheries due to the favourable climate in many regions and the many rivers of the country. Coffee is the biggest export product of Ethiopia.  
**Oromia Coffee Farmers Co-operative Union (OCFCU)**, the largest **Fairtrade** coffee producer in Ethiopia, was founded in 1999.  
 They are dedicated to promoting **environmental stewardship and social justice** in their communities. Women hold prominent positions throughout the organisation and all six varieties of OCFCU's award-winning coffee are produced with **organic** techniques in bird-friendly conditions.

Year 8 History Cycle Three - What was Britain's involvement with Slavery?

Week	Knowledge	Week
1 - Key Dates	<p>1562 - The first British slave ship made its journey across the Middle Passage</p> <p>1787 - The Abolition committee is founded in Britain</p> <p>1789 - Olaudah Equiano published autobiography</p> <p>1804 - Haiti gains its independence after a slave revolt</p> <p>1807 - Parliament passed an act that abolished Britain's role in the trading of slaves</p> <p>1831-32 - There was a major slave revolt in Jamaica</p> <p>1833 - Parliament passed an act that abolished slavery in the British Empire.</p>	6 - Key people
2 - Triangular Trade 1	<p>Britain had industrial goods, but wanted sugar and tobacco. America had sugar and tobacco, but wanted workers. Africa had people, but wanted industrial goods.</p>	7 - Life of a slave
3 - Triangular Trade 2 - Recap		8 - William Wilberforce
4 - Key Dates	<p><b>Abolition</b> - literally to bring to an end; in this context the campaign to end the slave trade and slavery</p> <p><b>Colonisation</b> a process of one country taking over another in order to exploit it</p> <p><b>Enslaved Person</b> a servant devoid of freedom and personal rights, one who is the property of another whether by capture, purchase or birth</p> <p><b>Gold Coast</b> the name given to an area of the West African coast by early European traders who traded for gold</p> <p><b>Middle Passage</b> the second stage in the transatlantic slave trade, on which ships carried enslaved Africans from Africa to either the Caribbean islands or the Americas</p>	9 - Abolition in Britain 1
5 - Key words 2	<p><b>New World</b> term given by Europeans to the Americas and the Caribbean Islands, in contrast to the 'Old World' of Europe, Asia and Africa; when they landed in the Americas Europeans considered them to be new lands, ignoring those that already lived there.</p> <p><b>Overseer</b> person on a plantation paid a wage to organise work of slaves</p> <p><b>Plantation</b> a large area of farmland, or estate, planted with particular crops</p> <p><b>Rebellion</b> organized armed resistance against established government or authority</p> <p><b>Segregation</b> separation of people, especially in the use of public facilities, employment, education, and housing; usually with a denial of political rights for the excluded group</p> <p><b>Shackles</b> metal hoops and chains put round the necks, wrists and ankles of (usually male) enslaved people to restrain them.</p>	10 - Abolition in Britain 2

**Ignatius Sancho** - Well known 18th century black Briton, and the first to vote in an election

**William Grenville** Prime Minister of Britain from 1806-1807 who signed the act to abolish slave trade

**Olaudah Equiano** Freed slave who lived in London as a prominent anti-slavery campaigner

**Thomas Clarkson** Leading campaigner against slavery and the slave trade

**Toussaint L'Ouverture** Leader of the rebellion on St Domingue, later Haiti

Granville Sharp - Chairman of the committee to abolish the Slave Trade

**Domestic Vs Plantation** - slaves fell into these two different types. Domestic slaves were butlers, cooks and maids, who had to look after the plantation owner, his family and his house. Plantation slaves were those who worked 18 hour days on the plantations growing cotton and tobacco. Domestic slaves were usually treated better than plantation slaves.

**Accommodation** - slaves lived in wooden shacks with mud floors, with up to as many as 15 people sharing 1 room. There was no furniture and old rags would be used to make beds.

**Family** - Slaves had no legal protection, therefore marriages and families could be broken up lawfully by their owners. Many used this as a threat to control slave behaviour. 32% of slave marriages were dissolved by masters selling slaves away from the family home.

- >> Famous abolitionist (fought to abolish slavery)
- >> born on 24th August 1759.
- >> In 1780 Wilberforce became Member of Parliament
- >> He joined a religious group called the Clapham Sect and he became increasingly interested in social issues and reform.
- >> William Wilberforce was partly responsible for Slave Trade Act (1807), which made the slave trade illegal.
- >> The Slave Trade Act of 1807 didn't free those individuals who were enslaved before 1807. Freedom was granted to all of the slaves in the British Empire in 1833, following the Slavery Abolition Act.

Britain was one of the first countries to abolish slavery. It introduced the Slavery Abolition Act in 1833. This abolished slavery throughout the British Empire. An anti-slavery law remains in force to this day. These factors all helped the abolition of slavery

**Politics** - Granville Sharp used the law courts to try and give slaves their freedom. He fought many court cases, e.g. the Zong ship. Slavery was becoming legally unacceptable. Slaves in Britain went to court to get their freedom. By the early 1800s most judges set these slaves free. The law of the land was turning against the idea of slavery

**Economics** - Sugar plantations were closing as cheap sugar could be bought from Brazil and Cuba. People argued that slaves would work harder if they were freed and paid.

**Religion** - Christian groups, such as the Quakers, thought that slavery was a sin against God and religion

**Beliefs and Ideas** - The Society for the Abolition of the Slave Trade was set up in 1787. Anti-slavery petitions were signed in British towns

**Media** - Thomas Clarkson collected evidence against slavery. He spread his message all over the country by publishing posters, pamphlets and making public speeches. Hannah More was a member of the Abolition Society. She wrote poems and books about the horrors of the slave trade, and convinced many of the need to ban it.

Year 8 JBACC Cycle Three - Healthy Connections

Week 1 & 2	Week 3 & 4	Week 5 & 6
<p><b>Attraction</b> - Feeling drawn towards someone, often romantically.</p> <p><b>Attachment</b> - Feeling connected to someone. Attachment is an important factor in long-term relationships (romantic and otherwise).</p> <p><b>Intimacy</b> - Closeness with someone. People often assume that intimacy is about sex, but in reality there are many different forms of intimacy and not all are sexual or romantic.</p> <p><b>Self-control</b> - the ability to control oneself, in particular one's emotions and desires, especially in difficult situations.</p> <p><b>Self-image</b> - the idea we have of our abilities, appearance, and personality.</p>	<p><b>Conflict</b> - Disagreement or argument between two people or a group. Learning to manage conflict in a kind and healthy way is essential to maintain good relationships and friendships.</p> <p><b>Compromise</b> - Agreement or settlement of a dispute which involves both sides making concessions (doing something they have been asked to do or accepting something even if it is not their ideal outcome).</p> <p><b>Assertiveness</b> - Being confident in stating your opinions or feelings whilst still considering those of others.</p> <p><b>Consent</b> - Permission for something to happen or to do something. Consent must be given freely and without pressure.</p>	<p><b>Lesbian</b> - A woman who is attracted to other women</p> <p><b>Gay</b> - A lesbian, or a man who is attracted to other men.</p> <p><b>Bisexual</b> - Someone who is attracted to both men and women.</p> <p><b>Pansexual</b> - Someone whose attraction to other people is not based on sex or gender.</p> <p><b>Straight</b> - Someone who is attracted to people who are a different gender to them (e.g. a man who is attracted to a woman).</p>
WEEK 7 & 8	WEEK 9 & 10	ASSESSMENT TECHNIQUE
<p><b>Grooming</b> - When someone builds a relationship, trust and emotional connection with a young person so they can manipulate, exploit or abuse them</p> <p><b>Harassment</b> - unwanted behaviour which you find offensive or which makes you feel intimidated or humiliated.</p> <p><b>Pornography</b> - Any visual or written representation of sexual images or activities. It is illegal for people under 18 to be exposed to pornography.</p> <p><b>Nudes</b> - A picture sent from one person to another, depicting their naked or partially naked body. Nudes are classed as a type of pornography, and images of someone under 18 would be classed as child pornography which is illegal for anyone to view or possess.</p>	<p><b>Marriage</b> - A legal union between two people, often with religious significance.</p> <p><b>Arranged marriage</b> - A marriage in which two people are brought together by their families, having been chosen for each other. Whilst the families are very involved in introducing the couple, the couple have free choice over whether to go ahead with the marriage.</p> <p><b>Forced marriage</b> - A marriage which takes place against the will of one or both people getting married. This includes pressuring or threatening a person to make them go ahead with the marriage.</p> <p><b>Cohabitation</b> - When two people in a romantic relationship, who are not married, live together.</p> <p><b>Coercive control</b> - An act or a pattern of acts of assault, threats, humiliation and intimidation or other abuse that is used to harm, punish, or frighten their victim.</p>	<p>The perfect 12-marker:</p> <p><b>Paragraph 1* - AGREES</b> with the statement Point, Evidence, Explanation, Link</p> <p><b>Paragraph 2* - DISAGREES</b> with the statement Point, Evidence, Explanation, Link</p> <p><b>Paragraph 3 - CONCLUSION</b> Overall, I think... I think this because...</p> <p>*One of these paragraphs will include an EVALUATION of the argument This is a strong/weak argument because...</p>

# Maths - Sparx

## Expectations:

Sparx homework is set at 2pm each Monday

50% of the compulsory and target tasks need to be completed by 7.30am on Thursday morning. Failure to do so will result in an invitation to a compulsory Sparx catch up session facilitated by maths staff after school from 3-4pm each Monday until work is up to date.

100% completion is expected by Monday morning at 7.30am. This work will be checked by your teacher during the day. Failure to complete the work/incomplete book work (including workings) /workings for outstanding historical homework will result in an after school detention for 1 hour on the same day (Monday) between 3-4pm.

General support sessions for homework are held in the library (check relevant days for your year group).

Sparx only support sessions are held on a Thursday after school on the Maths corridor. Students can receive additional Sparx support by watching the attached videos in full, followed by requesting their Maths teacher's assistance (please ensure you have already attempted the question and give adequate lead time to receive help before the deadline on Monday - i.e. before break time on Friday).

Sparx Coordinator: Mrs Pugh (AJP)

Action	When
Homework set for all year groups	14:00 Monday
50% Compulsory <b>AND 50% TARGET</b> completed or compulsory catch up issued	07:30 Thursday
Homework due. Any incomplete work results in a detention after school 3-4pm. Parents are contacted by admin team and notified about detention.	07:30 Monday

Homework

Thursday 1<sup>st</sup> June 2024

Task 1	Task 2
D40 $12 + 13 = \underline{25}$ ✓	E41 $P(\text{yellow}) = \frac{3}{6}$ ✗
E50 $4 \times 3 + 2 \times 5 =$ $12 + 10 = \underline{22}$ ✓	F51 $P(\text{black}) = \frac{4}{8}$ $= \frac{1}{2}$ ✓
F60 $\left( \begin{array}{l} 12 : 18 \\ \div 6 \\ \hline 2 : 3 \end{array} \right)$ ✓	G61 All the marbles are green. The probability of choosing a purple marble is <u>impossible</u> ✓
H70 $\frac{1}{14} + \frac{1}{7} = \frac{1}{7}$ ✗	H71 $P(\text{odd}) = \frac{3}{5}$ ✓
J90 $\frac{1}{8} + \frac{1}{4} = \frac{1}{8} + \frac{2}{8}$ $= \frac{3}{8}$ ✓	

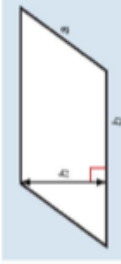
Year 8 Maths Cycle Three - Foundation Formula Quiz

Areas

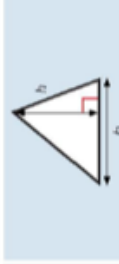
Rectangle =



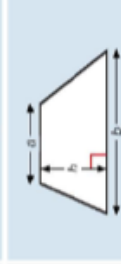
Parallelogram =



Triangle =



Trapezium =



Circles

Circumference =



Area of a circle =

Volumes

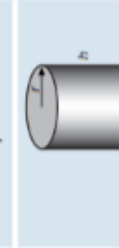
Cuboid =



Prism =



Cylinder =

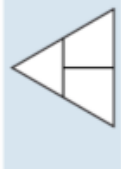


Compound measures

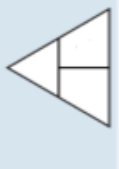
Speed =



Density =

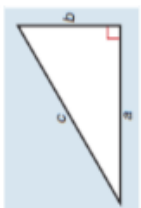


Pressure =



Right-angled triangles

Pythagoras' Theorem  
For a right-angled triangle,



Trigonometric ratios (new to F)

$\sin x^\circ =$    $\cos x^\circ =$    $\tan x^\circ =$



Angles formed by parallel lines



Foundation Formula Quiz

Constructing Pie Charts

The angle to draw for each sector is

Angle =

Angles in Polygons

Sum of Interior Angles =

Where  $n$  is the number of sides of the shape

Exterior Angles add up to

One exterior angle in a REGULAR polygon =

Interior + Exterior =

Other useful formu-

gradient =

% change =

Types of numbers

SQUARE NUMBERS

CUBE NUMBERS

PRIME NUMBERS

**Areas**

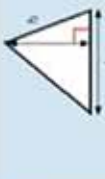
Rectangle =  $l \times w$



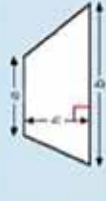
Parallelogram =  $b \times h$



Triangle =  $\frac{1}{2} \times b \times h$

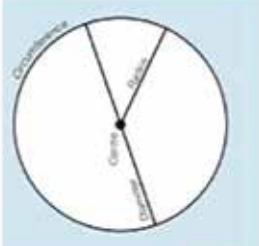


Trapezium =  $\frac{1}{2} (a + b)h$



**Circles**

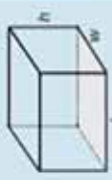
Circumference =  $\pi \times \text{diameter} = \pi d$   
 $2 \times \pi \times \text{radius} = 2\pi r$



Area of a circle =  $\pi \times \text{radius squared} = \pi r^2$

**Volumes**

Cuboid =  $l \times w \times h$



Prism =  $\text{area of cross section} \times \text{length}$

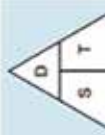


Cylinder =  $\pi r^2 h$

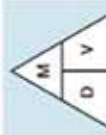


**Compound measures**

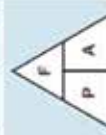
Speed =  $\frac{\text{distance}}{\text{time}}$



Density =  $\frac{\text{mass}}{\text{volume}}$

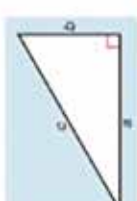


Pressure =  $\frac{\text{force}}{\text{area}}$



**Right-angled triangles**

Pythagoras' Theorem  
 For a right-angled triangle,  
 $a^2 + b^2 = c^2$

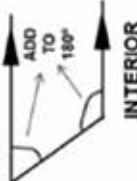


**Trigonometric ratios (new to F)**

$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}$ ,  $\cos x^\circ = \frac{\text{adj}}{\text{hyp}}$ ,  $\tan x^\circ = \frac{\text{opp}}{\text{adj}}$



**Angles formed by parallel lines**



ALTERNATE

CORRESPONDING

INTERIOR

**Foundation Formula Quiz**

**Constructing Pie Charts**

The angle to draw for each sector is

$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360^\circ$

Angles in Polygons

Sum of Interior Angles =  $(n - 2) \times 180^\circ$

Where  $n$  is the number of sides of the shape

Exterior Angles add up to  $360^\circ$

One exterior angle in a REGULAR polygon =  $\frac{360^\circ}{n}$

Interior + Exterior =  $180^\circ$

**Other useful formulae**

gradient =  $\frac{\text{change in } y}{\text{change in } x}$

% change =  $\frac{\text{difference}}{\text{original}} \times 100$

**Types of numbers**

**SQUARE NUMBERS**

→ 1, 4, 9, 16, 25, 36, 49, 64, 81, 100 etc  
(1x1) (2x2) (3x3) (4x4) (5x5) (6x6) (7x7) (8x8) (9x9) (10x10)

**CUBE NUMBERS**

→ 1, 8, 27, 64, 125 etc  
(1x1x1) (2x2x2) (3x3x3) (4x4x4) (5x5x5)

**PRIME NUMBERS**

→ 2, 3, 5, 7, 11, 13, 17, 19, 23, 29 etc



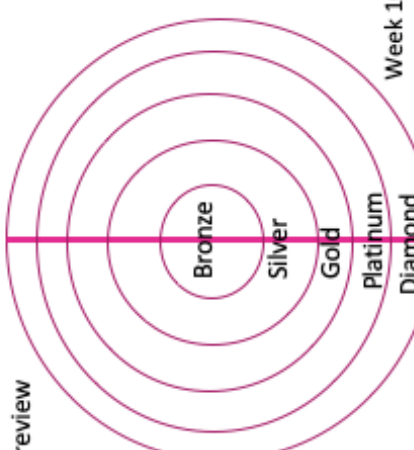
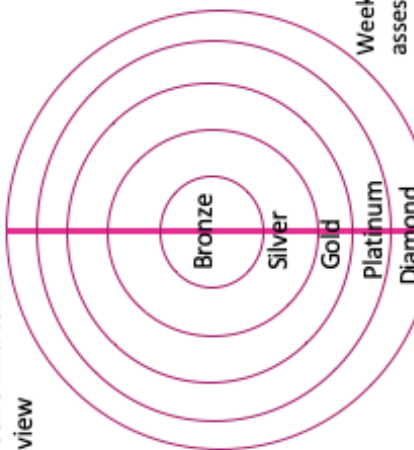
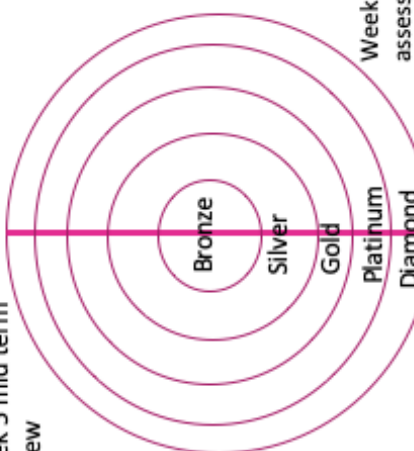

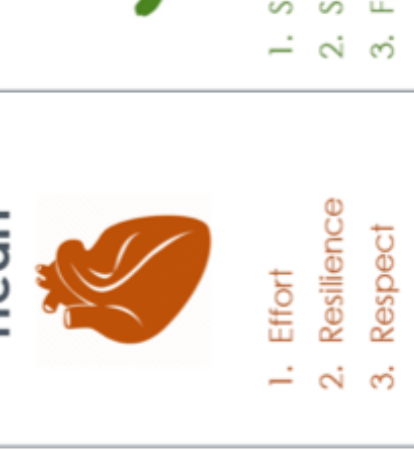




WK 1	<p><b>Musician</b> – someone who plays an instrument, <b>Composer/Song Writer</b> – someone who writes songs for themselves or others to perform/record, <b>Record Producer</b> – someone who makes songs/albums with artists in a studio, <b>Conductor</b> – someone who helps direct an ensemble of musicians, <b>Live Sound Technician</b> – someone who deals with the sound at live events or on the fly in recording studios, <b>Roadie</b> – someone who works on tour moving equipment in and out of venues, <b>Instrument Technician</b> – someone who looks after instruments for artists/performers.</p> <p><b>Artistic Manager</b> – someone who could potentially manage every part of an artist’s professional life, <b>Venue Manager</b> – someone who organizes people who work in venues, <b>Studio Manager</b> – someone who organizes people who work in studios, <b>Promoter</b> – someone who will promote someone’s work, <b>Marketer</b> – someone who can work with people to create a brand and strategy to sell that brand, <b>A&amp;R (artist and repertoire)</b> – someone who finds artists for record labels, they can also help manage the artist, <b>Sound Engineer</b> – someone who helps to manipulate sound in particular spaces and has a lot of knowledge about live sound, <b>Session Musician</b> – someone who performs with a variety of different artists and doesn’t belong to a set band/artist.</p>
WK 3	<p><b>Mastering Engineer</b> – someone who works to create the finished product after it’s been recorded in the studio, <b>Manufacturer</b> – someone who creates CDs and other things like merchandise, <b>Music Journalist/Blogger</b> – someone who writes reviews on all things in music, from new guitars to new bands, <b>Broadcaster</b> – someone who works to get the music product out on a network (TV, radio, internet), <b>Software Programmer/App Developer</b> – someone who works to create musical software for the music industry, <b>DJ</b> – someone who plays artist’s music, either on radio or at live events, <b>Retailer</b> – someone who stocks CDs or merchandise, <b>Distributor</b> – someone who helps to distribute all things to do with music.</p> <p><b>Full Time</b> – work that requires you to be there for a set time, you get privileges like sick pay and holiday pay, <b>Part Time</b> – same as full time but reduced hours, <b>Freelance/Self employed</b> – you get work for yourself, often well paid but doesn’t have the privilege of sick pay or holiday pay</p> <p><b>Large Venues</b> – huge stadiums or sport grounds that seat up to 100,000, <b>Medium venue</b> – royal albert hall, the O2, they seat smaller numbers like 4,000 – 15,000, <b>Small Venues</b> – bars, pubs and clubs that seat numbers in the low thousands or hundreds, <b>Health, Safety and Security</b> – Laws and regulations that venues must follow to help keep their employees and customers safe.</p>
WK 5	<p><b>Recording Companies/Record Labels</b> – Large multinational organisations that make albums/songs/records, <b>Major Labels</b> – Universal or Sony are examples, <b>Sub Labels</b> – a branch of a bigger label, <b>Independent Labels</b> – labels that are not controlled by any of the larger record labels, <b>Music Publishing</b> – artists publish work using these organisations, <b>Self Publishing</b> – when an artist publishes their own work, <b>Promotion Companies</b> – companies who advise and help promote artist’s work (TV, radio, social media), <b>PR and Marketing Companies</b> – companies that help create a brand and image for an artist, <b>Hire and Transport Companies</b> – companies that provide equipment for lighting, sound, other amenities like loo facilities and catering, and companies that move this stuff around and transport it.</p> <p><b>gencies</b> – companies that work for musicians and provide advice and protection, <b>Unions</b> – large organisations set up to protect works right in the music industry, <b>Trade Bodies</b> – large organisations that are created and funded by its members to work for the rights of the Apeople within that body.</p>
WK 7	<p><b>Dynamic microphone</b> – a robust mic used for very loud sounds like drums, amplifiers or brass instruments, <b>Condenser microphone</b> – a sensitive mic used for quieter sounds like acoustic guitar or vocals, <b>EQ</b> – an effect to control the level of different frequencies, <b>Compression</b> – an effect to control the level of loud and quiet sounds on a recording, <b>Reverb</b> – an effect that emulates that given sound/track/song in a given space, for example a large church, <b>Distortion/fuzz/overdrive</b> – an effect that boosts the signal to create a controlled distorted sound</p> <p><b>Microphone stand</b> – piece of equipment to hold a mic, <b>XLR lead</b> – cable that connects microphones, <b>Jack lead</b> – cable that connects guitars, electric keyboards or electric drum kits, <b>Acoustic foam boards</b> – boards that help dampen sound when recording live, <b>Pop shield</b> – a filter that helps reduce plosive sounds, <b>Recording booth</b> – a space to record live sounds</p>
WK 9	<p><b>Mixing</b> – process of adding effects and then pan and balance the song, <b>Mastering</b> – process to export the final recording with some small tweaks, <b>Mix down</b> – process of exporting the song to a given format, MP3, WAV or similar</p> <p><b>Dynamic microphone</b> – a robust mic used for very loud sounds like drums, amplifiers or brass instruments, <b>Condenser microphone</b> – a sensitive mic used for quieter sounds like acoustic guitar or vocals, <b>EQ</b> – an effect to control the level of different frequencies, <b>Compression</b> – an effect to control the level of loud and quiet sounds on a recording, <b>Reverb</b> – an effect that emulates that given sound/track/song in a given space, for example a large church, <b>Distortion/fuzz/overdrive</b> – an effect that boosts the signal to create a controlled distorted sound</p>
Extra	<p><b>Microphone stand</b> – piece of equipment to hold a mic, <b>XLR lead</b> – cable that connects microphones, <b>Jack lead</b> – cable that connects guitars, electric keyboards or electric drum kits, <b>Acoustic foam boards</b> – boards that help dampen sound when recording live, <b>Pop shield</b> – a filter that helps reduce plosive sounds, <b>Recording booth</b> – a space to record live sounds, <b>Mixing</b> – process of adding effects and then pan and balance the song, <b>Mastering</b> – process to export the final recording with some small tweaks, <b>Mix down</b> – process of exporting the song to a given format, MP3, WAV or similar.</p>

Year 8 Physical Education Cycle Three

**PE Assessment**

In PE we assess using Head, Heart, Hands. Across the year you will self assess along with being given a summative level. At the end of term we will spend time to reflect each area and then using the assessment wheel (below) you will shade in your current level for each of the 3 stands in PE. Once you have completed this reflect on the following three questions:

1. What level am I currently at?
2. Where do I want to be?
3. How do I get there?

<p><b>Week 5 mid term review</b></p>  <p><b>Week 5 mid term review</b></p>	<p><b>Week 5 mid term review</b></p>  <p><b>Week 5 mid term review</b></p>	<p><b>Week 5 mid term review</b></p>  <p><b>Week 5 mid term review</b></p>
<p><b>Week 10 Self assessment</b></p>  <p><b>Week 10 Self assessment</b></p>	<p><b>Week 10 Self assessment</b></p>  <p><b>Week 10 Self assessment</b></p>	<p><b>Week 10 Self assessment</b></p>  <p><b>Week 10 Self assessment</b></p>
<p><b>Head</b></p>  <ol style="list-style-type: none"> <li>1. Leadership</li> <li>2. Knowledge</li> <li>3. Analysis</li> <li>4. Decision Making</li> <li>5. Tactical</li> </ol>	<p><b>Heart</b></p>  <ol style="list-style-type: none"> <li>1. Effort</li> <li>2. Resilience</li> <li>3. Respect</li> <li>4. Motivation</li> <li>5. Commitment</li> </ol>	<p><b>Hands</b></p>  <ol style="list-style-type: none"> <li>1. Skill Development</li> <li>2. Skill Application</li> <li>3. Fitness Levels</li> <li>4. Technique</li> <li>5. Competitive</li> </ol>

Year 8 Physical Education Cycle Three - Intra-Personal Skills				
1 - Behaviour	2 - Empathy	3 - Patience	4 - Adaptability	5 - Coping with Pressure
<p><b>Behaviour:</b> Is the way we act or conduct ourselves appropriate to the environment. In PE and sport there are rules and ways in which someone should behave. Is the way we act or conduct ourselves appropriate to the environment. In PE and sport there are rules and ways in which someone should behave.</p> <p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>» What does positive behaviour in PE look like?</li> <li>» How did you demonstrate it in a recent PE lesson?</li> <li>» How does behaviour in PE and sport impact performance?</li> </ul> <p>Please answer all questions in your KO books.</p>	<p><b>Empathy:</b> Can be defined as the ability to understand and share the feelings of another.</p> <p>Empathy is important in PE because it helps us understand how others are feeling so we can respond appropriately to the situation. When working in a group we should consider the feelings of others in order to share ideas and improve performance.</p> <p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>» Why is it important for a coach or leader to understand and demonstrate empathy?</li> <li>» How did you demonstrate it in a recent PE lesson?</li> <li>» How might you demonstrate it in school?</li> </ul>	<p><b>Patience:</b> The ability to remain calm when dealing with a difficult or annoying situation, task or person.</p> <p>In PE, some skills can require patience to learn and master. Working in a team might require patience to support them to improve or listen to instructions.</p> <p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>» How have you demonstrated patience in a recent lesson?</li> <li>» How can the concept of patience support your learning in another subject?</li> <li>» How can showing patience support you outside of school?</li> <li>»</li> </ul>	<p><b>Adaptability:</b> If you want to work on developing the right mindset for not giving up, then you have to be able to not only accept change, but to thrive in it. Look at change as an opportunity to learn something new, to meet new people, and to improve in PE.</p> <p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>» What is adaptability in PE and sport?</li> <li>» How can it support learning in PE?</li> <li>» How can it support development outside of PE?</li> </ul>	<p><b>Coping with Pressure:</b> Coping with pressure is the conscious effort to minimize something causing stress. In PE, sport and in life we will have to cope with stressful situations. In PE it might be a deadline to create a routine, in sport it might be the pressure to win or take a penalty.</p> <p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>» How have you coped with pressure in a recent PE lesson?</li> <li>» How did others in the class support you? How did you help them?</li> </ul>

Year 8 Spanish Cycle Three

WEEK 1

lo - him, it (m)  
 la - her, it (f)  
 dejar - to leave, to let (give permission)  
 seguir - to follow, following  
 sigo - I follow, am following  
 acompañar - to go with, to accompany  
 policía - police, police officer  
 parar - to stop, stopping  
 cocina - kitchen  
 saludar - to greet, greeting  
 besar - to kiss, kissing

WEEK 2

me - myself, to me  
 te - yourself, to you  
 le - to him/her/it  
 quitar - to take away, to take off  
 lleno - full (m)  
 llena - full (f)  
 tirar - to throw, throwing  
 caja - box  
 regalar - to give, giving  
 vacío - empty (m)  
 vacía - empty (f)  
 reloj - watch  
 tarjeta - card

WEEK 3

gustar - to please, to be pleasing to  
 difícil - difficult  
 importar - to matter, to be important to  
 interesar - to interest, to be interesting to  
 fácil - easy  
 preocupar - to worry, to be worrying to  
 encantar - to delight, to be delightful to  
 molestar - to annoy, to bother  
 alegrar - to make happy

WEEK 4

querer - to want, to love  
 encontrar - to find, finding  
 volver - to return, returning  
 esperar - to wait (for), waiting (for)  
 historia - story  
 mes - month  
 llorar - to cry, crying  
 mamá - Mum  
 gritar - to shout, shouting  
 papá - Dad  
 frío - coldness

WEEK 4

nuestro - our (m)  
 nuestra - our (f)  
 tan - so (for emphasis)  
 hijo - son  
 hija - daughter  
 médico - doctor (m)  
 médica - doctor (f)  
 conocido - well-known (m)  
 conocida - well-known (f)  
 científico - scientist (m)  
 científica - scientist (f)

WEEK 6

veintín - twenty one  
 treinta - thirty  
 tío - uncle  
 tía - aunt  
 abogado - lawyer (m)  
 abogada - lawyer (f)  
 débil - weak  
 músico - musician (m)  
 música - musician (f)

WEEK 7

que - that, than  
 menos - less  
 ¿de verdad? - really?  
 entrar - to go in, to enter  
 vale - ok  
 peor - worse  
 ambiente - atmosphere  
 prestar - to lend, lending  
 enfermo/a - ill, sick  
 cansado/a - tired  
 emocionado/a - excited  
 enojado/a - angry

WEEK 8

este - this (m)  
 esta - this (f)  
 parecer - to seem, to appear  
 tipo - type  
 precio - price  
 guardar - to keep, keeping  
 mitad - half  
 marca - brand  
 ligero/a - light  
 práctico/a - practical  
 pagar - to pay, paying  
 euro - euro  
 falda - skirt

WEEK 9

hice - I did, I made  
 hiciste - you did, you made  
 hizo - s/he/it did, s/he/it made  
 viejo - old  
 fondo - back, end (of an area)  
 evitar - to avoid, avoiding  
 dentro - inside  
 fuego - fire  
 mayo - May  
 junio - June  
 habitación - bedroom  
 jardín - garden  
 daño - harm, damage  
 estadio - stadium  
 campo - countryside, pitch  
 fila - line

WEEK 10

fuí - I went  
 fuiste - you went  
 fue - s/he/it went  
 historia - story, history  
 zona - area, zone  
 apoyar - to support, supporting  
 simplemente - simply  
 celebrar - to celebrate, celebrating  
 directo - direct  
 septiembre - September  
 diciembre - December  
 octubre - October  
 colegio - school, college  
 avión - plane  
 noviembre - November  
 principalmente - mainly, principally

Year 8 Combined Science Cycle Three

Sparx Science Homework

All Science homework is set on Sparx Science (<https://sparxscience.com/>). The tasks go live every Friday morning at 8am and are expected to be completed by 8am the following Friday morning.

Students have science slots in their homework timetable (twice per week, 15 minutes each). This is the suggested time to complete this work to help them with their time management. However they may complete the work at any other time during the week if they wish to.

Sparx Science will set students different questions depending on their previous achievements, and the topics they need to learn. Therefore each student will have slightly different tasks to complete. We would like students to complete 100% of their tasks. However, if they are regularly taking longer than the timetable time to complete this work then they can talk to their Science teacher for support.

Support is available from students' science teachers and through a support session every Wednesday after school in the Science corridor. Students can also attend homework club every day in the library if they need some help.

Sparx Science is currently being trialled by St James so if you experience any issues with the platform, or have any feedback, please contact Rob Morse ([rob.morse@stjamesxeter.co.uk](mailto:rob.morse@stjamesxeter.co.uk)).

Week 1

- Waves** transfer energy without transferring matter. They can be either:
  - Mechanical** - they need a medium to travel through e.g. sound waves or seismic waves.
  - Electromagnetic** - disturbances in electric and magnetic fields. E.g. Light or X-rays.
- Waves can be described in terms of their **Amplitude, Wavelength, Frequency and Period**.
- Transverse waves:** the direction of energy transfer is perpendicular (at right angles) to the direction the particles oscillate.
- Longitudinal waves:** the direction of energy transfer is parallel to (in line with) the direction the particles oscillate.
- Wave speed,  $v$ , can be calculated as:  

$$v \text{ (m/s)} = \frac{\text{distance travelled by wave (m)}}{\text{time taken (s)}}$$

$$v \text{ (m/s)} = \text{wavelength, } \lambda \text{ (m)} \times \text{frequency, } f \text{ (Hz)}$$

Week 2

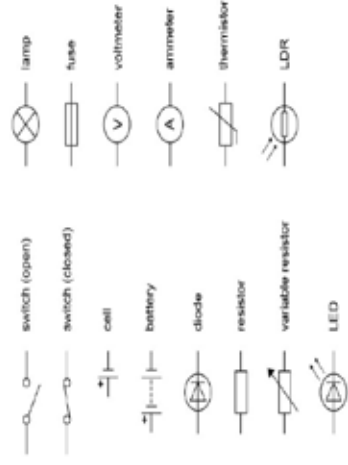
- Sound waves are caused by vibrating objects.
- The greater the **amplitude** of a sound wave, the greater **volume** of the sound.
- The greater the **frequency** of a sound wave, the higher the **pitch** of the sound.
- Sound waves travel at different speeds depending on the medium. **The speed of sound in air is 343 m/s.**
- Refraction** occurs at the boundary between two mediums of different density as waves change speed.
- Waves will **reflect** off of a solid surface:
  - Diffuse reflection** - waves are scattered in many directions by a rough surface.
  - Specular reflection** - waves all reflect in the same direction from a shiny surface.
- Law of reflection:** angle of incidence = angle of reflection

Week 3

- The **Electromagnetic (EM) Spectrum** consists of:
  - Radio waves, Microwaves, Infrared (IR), Visible light, Ultraviolet (UV), X-rays, Gamma rays.**
- All EM waves travel at the **speed of light,  $3 \times 10^8$  m/s** through a vacuum.
- The longer the wavelength of an EM wave, the lower the frequency.
- All EM waves have a variety of uses including communication, cooking and medical applications.
- Some EM waves are harmful and can cause burns or damage your eyes. UV, X-rays and Gamma Rays are **ionizing radiations** and can cause cancer.

Week 4

- Rubbing two **insulating materials** together will cause the build up of a **static electric charge** as electrons are transferred.
- Components** in an electric circuit can be represented using **circuit symbols**:



Year 8 Combined Science Cycle Three		
Week 5	Week 6	Week 7
<p>1. Electrons carry the electric charge in an <b>electric current</b>.</p> <p>2. Current through a component can be measured in a circuit using an <b>ammeter</b> connected in line with a component.</p> <p>3. Current is always <b>conserved</b> in a circuit - the current leaving the positive terminal and arriving at the negative terminal is the same.</p> <p>4. For a current to flow, the circuit must be complete.</p> <p>5. <b>Potential difference</b> (pd) across a component in a circuit can be measured using a <b>voltmeter</b> connected across a component.</p> <p>6. The greater the pd across a component, the higher the current through it will be.</p>	<p>1. <b>Series circuits:</b> components are arranged one after another - there is only one route for the current to take. Current is the same through all components. Pd across the individual components in the circuit adds up to the total pd across the power supply.</p> <p>2. <b>Parallel circuits:</b> components are arranged on separate branches of the circuit - current flows along different branches when it reaches a junction. Current through the main circuit is divided across the separate branches. Pd across each branch is the same as the pd across the supply.</p> <p>3. <b>Resistance</b> occurs when charges collide with the particles which make up the wire.</p>	<p>1. The power of an object is the energy that it transfers per second. It is measured in <b>Watts (W)</b></p> <p>2. <b>Power (W) = Energy transferred (J) ÷ time (s)</b></p> <p>3. The power transferred by an appliance depends on the potential difference across it and the current flowing through it</p> <p>4. <b>Power (W) = current (A) x Potential difference (V)</b></p>
Week 8	Week 9	Week 10
<p>1. Most cables have three wires: <b>Neutral wire</b> = blue. This wire completes the circuit and the potential difference is 0V <b>Live wire</b> = brown. This wire carries the voltage and has a potential difference of 230V <b>Earth wire</b> = green and yellow. This wire is for safety and has a potential difference of 0V.</p> <p>2. Fuses are another safety device. If the current is too high, the fuse melts.</p> <p>3. Circuit breakers are another safety device. They are quicker than a fuse and are reset, so do not need to be replaced.</p>	<p>1. All magnets have two poles - a <b>north pole</b> and a <b>south pole</b></p> <p>2. All magnets produce a <b>magnetic field</b> - a region where other magnets or magnetic materials exert a force</p> <p>3. Magnetic field lines always go from <b>north to south</b></p> <p>4. The closer together magnetic field lines are, the stronger the magnetic field</p> <p>5. Two poles that are the same will <b>repel</b>. Two poles that are different will <b>attract</b></p> <p>6. You can use a <b>plotting compass</b> or iron filings to show magnetic field lines</p>	<p>1. The <b>Solar System</b> is made up of <b>The Sun</b> (a star) and the <b>Planets</b> that orbit it. Other objects include moons, the asteroid belt and man-made <b>satellites</b>.</p> <p>2. Planets and moons are kept in orbit by <b>gravity</b>. The larger an object is, the greater its gravitational pull.</p> <p>3. Objects weigh less on smaller planets such as Mars, but would weigh more on larger planets such as Jupiter. Weight, <math>w</math>, can be calculated as: <math display="block">w = m \times g</math> (N) (kg) (N/kg)</p> <p>4. <b>Seasons</b> occur due to the Earth's tilt as it orbits the Sun. It is summer in the hemisphere tilting towards the Sun.</p> <p>5. <b>Day and night</b> occur due to the Earth's rotation. It is day on the side of the Earth facing the Sun.</p>

Year 7 Food Technology Cycle Three

Key Vocabulary

- » Danger Zone This term used to describe the temperature range from 5-63 C where food is most at risk of developing harmful bacteria.
- » High risk foods : Pathogenic bacteria will multiply the most in these foods.
- » Mise en Place: is a french term for getting your ingredients and equipment ready before you start any cooking.
- » Quality points: these give you an idea of what you need to do to make sure that you produce a culinary masterpiece! They tell you what the food should be like at different stages.
- » Sensory descriptors: A sensory descriptor is a label used to describe a specific sensory property of an ingredient. Descriptors can communicate accurate words for the aroma, appearance, texture and taste of food.
- » Gelatinisation: this process occurs when starch granules are heated in a liquid, causing them to swell and burst, which results in the liquid thickening.
- » Food miles: How far our food has travelled to get to your plate.
- » Sustainability: Food sustainability means producing food in a way that protects the environment and communities so that we and future generations can still enjoy them.
- » Seasonal: Seasonal eating means eating (or preserving food e.g. freezing / pickling / making jam) with food fairly quickly after it is harvested in the local area.
- » Empty calories: If a food does not contain nutrients or if the calories from sugar and fats outweigh the nutrients in the food, it's considered to be 'empty' calories

Week 1

THE 4 C'S OF FOOD SAFETY

- » C – Good hygiene prevents CROSS CONTAMINATION
- » C – Effective CLEANING removes harmful bacteria and stops them spreading
- » Effective CHILLING prevents harmful bacteria multiplying
- » C – Thorough COOKING kills bacteria

CROSS-CONTAMINATION

prevention involves keeping raw and cooked food separate to avoid transferring bacteria.



Week 2

COOKING

- To reduce the risk of food poisoning, hot food must be served steaming hot, that is above 63°C.
- » Cooking food thoroughly to a minimum core temperature of 75 C will ensure most bacteria is destroyed.
  - » When cooking burgers, sausages, portions of pork and chicken, there should be no pink meat. They should also be steaming hot inside and the juices should run clear when cooked.
  - » Steak or other cuts of beef or lamb can be eaten less well done as long as they have been properly sealed. Sealing the meat will kill any bacteria on the outside.
  - » Leftovers should not be re-heated more than once. They must be served steaming hot and should be used within 48 hours from when it was made. (24 hours for rice dishes).

Week 3

CHILLING

- » Bacteria will multiply most rapidly within the 'danger zone' temperature range. Reducing the temperature below 5°C slows the reproduction of microorganisms. Cold temperatures do not kill bacteria.
- » High-risk food, such as meat, fish and dairy products plus opened bottles, jars or tubes, should be stored below 5°C. Eggs should be stored in a cool, dry place. Ideally, eggs should be stored in the fridge.
- » Leftovers should be cooled as quickly as possible within two hours and then stored in the fridge below 5°C.

Week 4

CLEANING

'Clean as you go' means people make sure that they clean the area and utensils they have been working in or with, as they prepare food. This avoids build-up of mess and leads to better hygienic conditions. Areas which need particular attention are: surfaces that come into contact with food, e.g. chopping boards, utensils; surfaces that come into contact with hands, e.g. cupboard and fridge doors.

Year 7 Food Technology Cycle Three

Week 5

**BENEFITS OF STARCHY CARBOHYDRATES**

Starchy carbohydrate usually provides 4kcal per gram.  
 Starchy foods, sometimes called 'carbs', include bread, pasta, rice, breakfast cereals, oats and other grains.  
 Starchy foods, especially wholegrains, feature as a main food group or a staple all over the world.  
 Starchy foods also make an important contribution to our intakes of essential nutrients such as B vitamins, folate, iron and calcium.  
 Carbohydrates contain roughly half the calories of fat. It's best for our health to go for wholegrain options of starchy foods (such as wholemeal bread, wholewheat pasta, brown rice) regularly and to eat potatoes with skins as these are a key source of fibre. Don't add too much saturated fat, for example creamy pasta.

Week 6

**GOVERNMENT'S 8 TIPS FOR HEALTHY EATING**

1. Base your meals on starchy foods.
2. Eat lots of fruits and vegetables.
3. Eat more fish, including a portion of oily fish each week.
4. Cut down on saturated fat and sugar.
5. Try to eat less salt - no more than 6g a day for adults.
6. Get active and try and maintain a healthy weight.
7. Drink plenty of water.
8. Don't skip breakfast

Use the Eatwell Guide to help you maintain a Balanced, healthy diet..



Week 7

**SUGAR IN THE DIET**

There are different types of sugar including 'table sugar' (sucrose), fructose (found in fruit) and lactose (found in milk).  
 Sugars provides 4kcal (calories) per gram  
 Sugars can be divided into 'free' and 'intrinsic' sugars.  
 Intrinsic sugars are those found naturally in dairy foods like milk or in fresh, cooked, or dried fruit and vegetables. We do not need to cut down on these kinds of sugars.  
 Free sugars include all added sugars in foods and drinks and the sugars present in honey, syrups, fruit juices, smoothies, and fruit juice concentrates.  
 Consuming too much free sugars is linked with tooth decay and with consuming more calories than we need, which can lead to weight gain.

Week 8

**DIET AND TEENAGERS**

**Bone Health**  
 Calcium is important for strong bones. Vitamin D is needed for calcium to be absorbed from food. Ensure your diet contains milk and dairy.  
**Anaemia**  
 Iron is vital for making red blood cells. Anaemia develops if the body's stores of iron are too low making you feel tired and lacking in energy. Sources include red meat, beans, such as red kidney beans, edamame beans and chickpeas, nuts, dried fruit. Vitamin C foods enhances iron absorption levels.

Week 9

**DIET AND HEALTH**

There is a link between a poor diet, and the risk of developing some diseases.  
 Diet and CHD ( Coronary Heart Disease)  
 It is believed that 80% of CHD and strokes could be prevented by changes to lifestyle factors, such as diet, physical activity and smoking.  
 Changes to the diet to reduce the risk of CHD include:  
 increasing oily fish intake;  
 reducing salt intake;  
 increasing fruit and vegetables;  
 decreasing alcohol consumption.

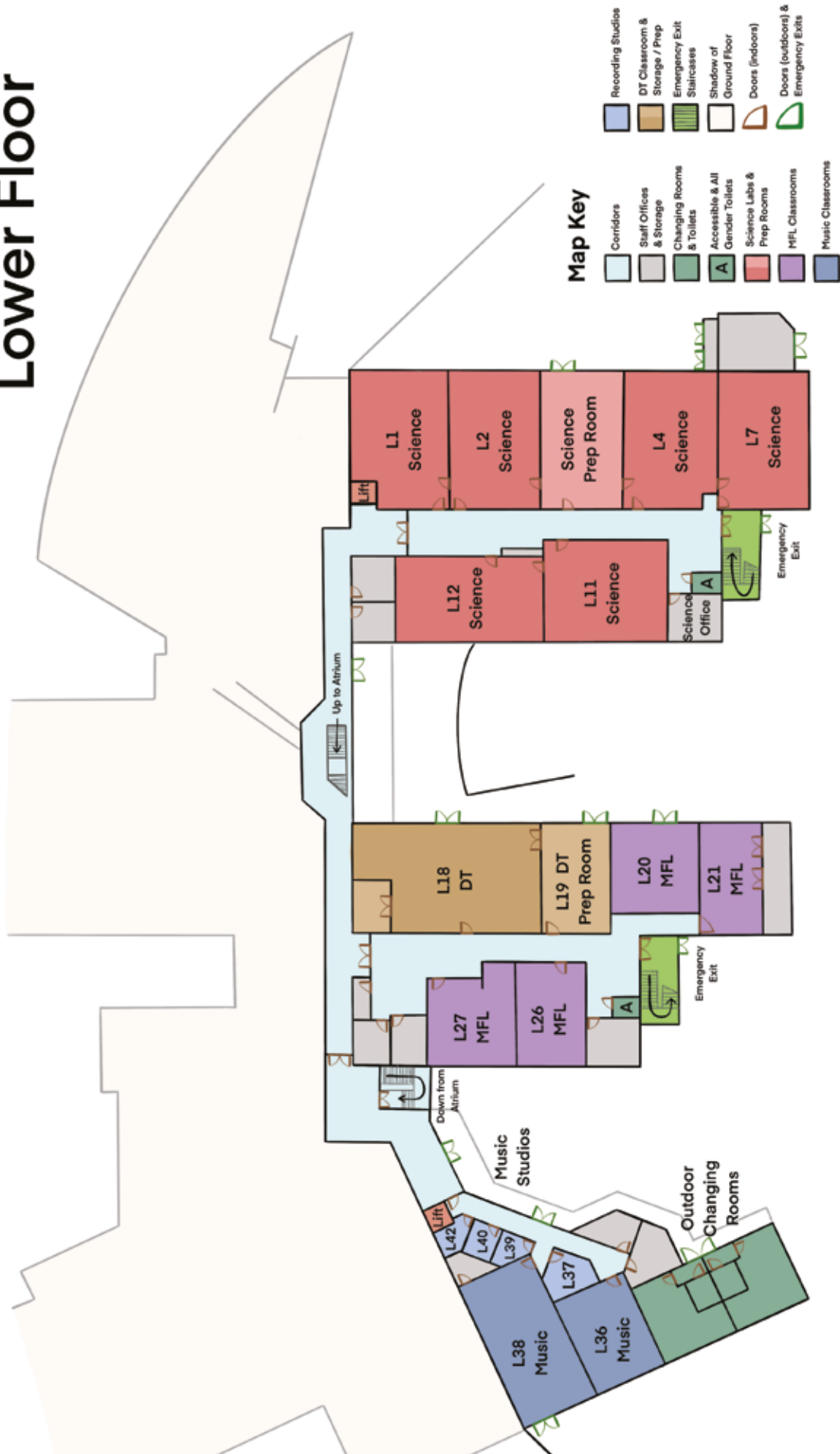
Week 10

**RAISING AGENTS**

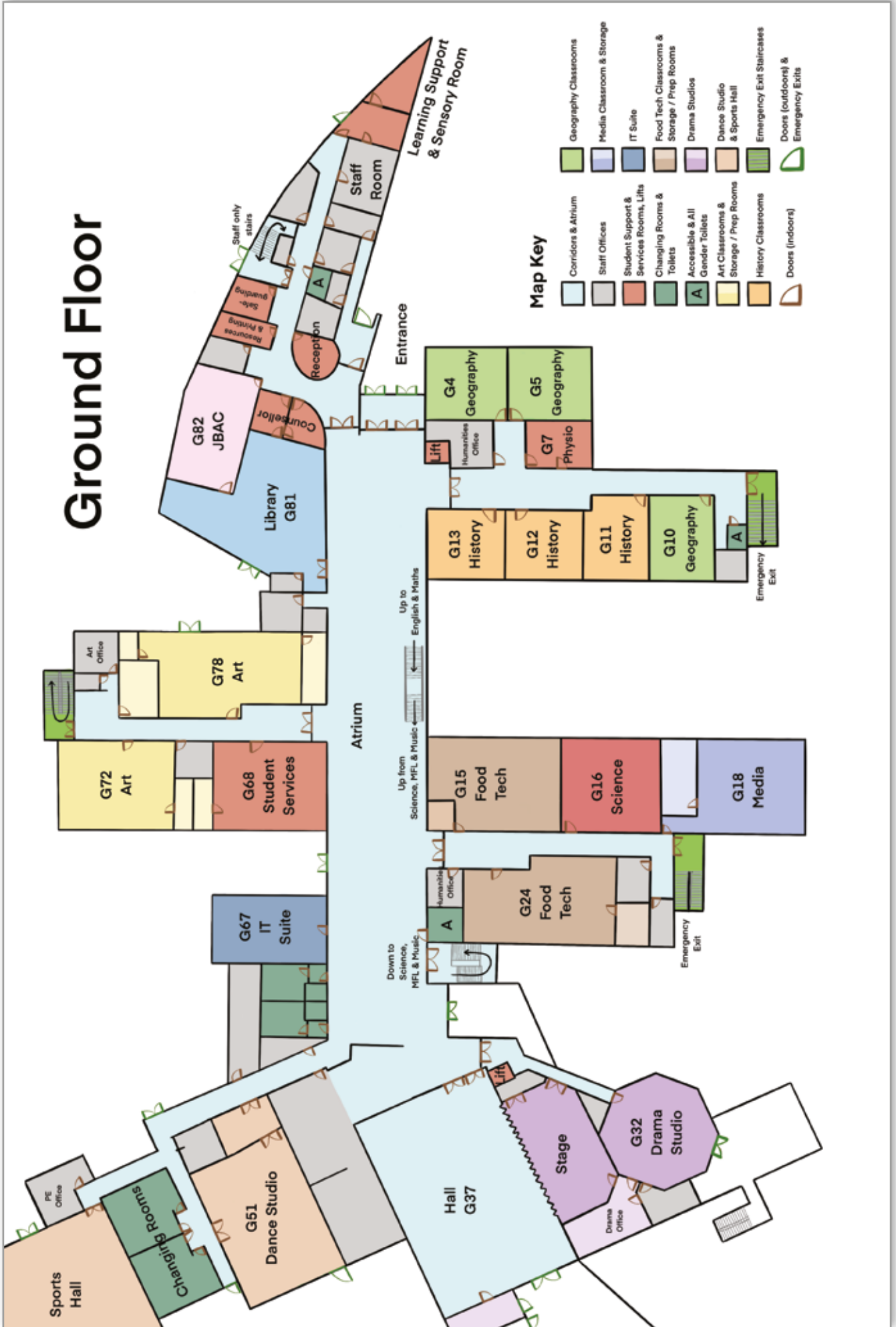
Raising agents include anything that causes rising within foods and are usually used in baked goods. Raising agents can be:  
 biological, e.g yeast;  
 chemical, e.g baking powder;  
 mechanical, e.g adding air through beating or folding.



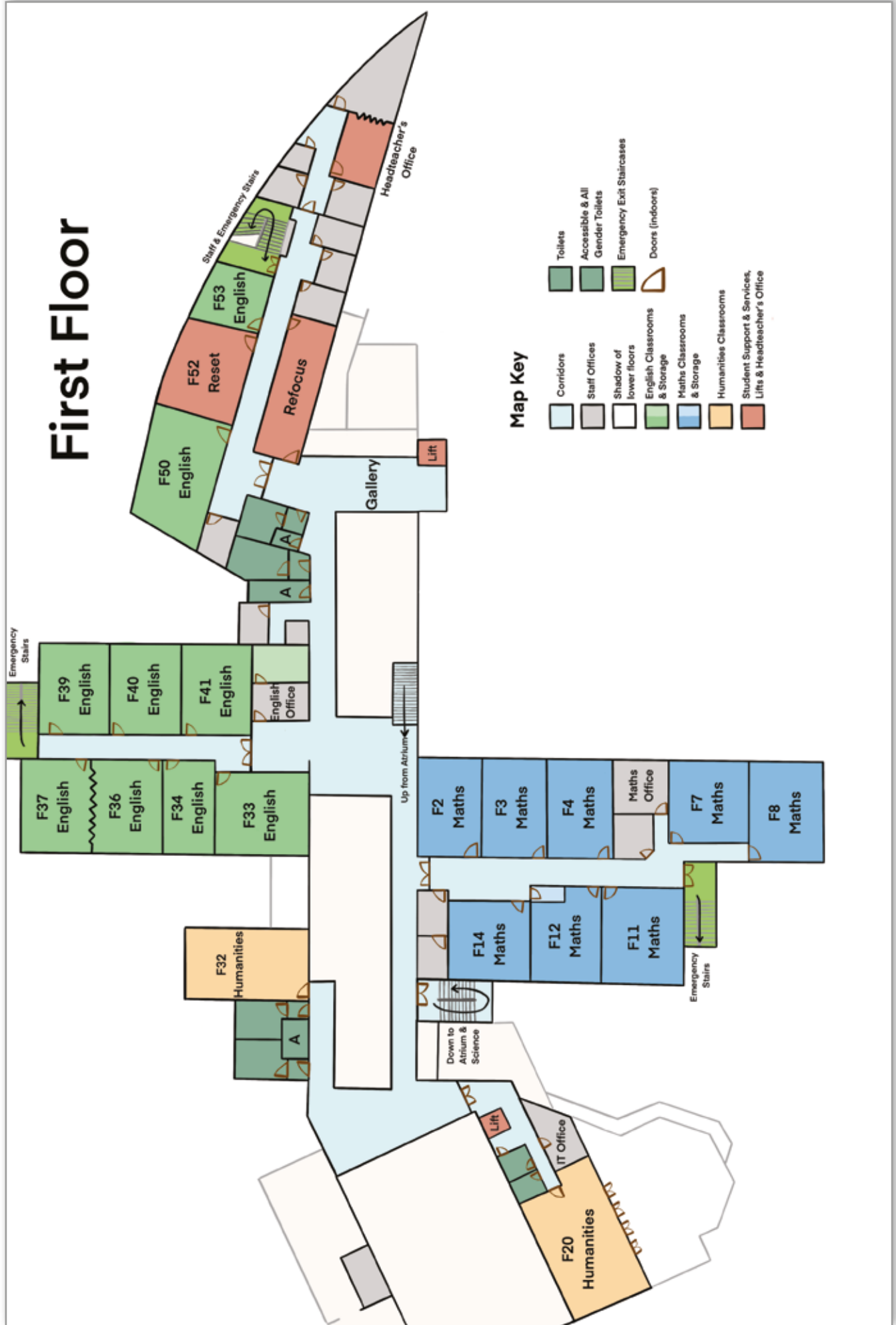
# Lower Floor

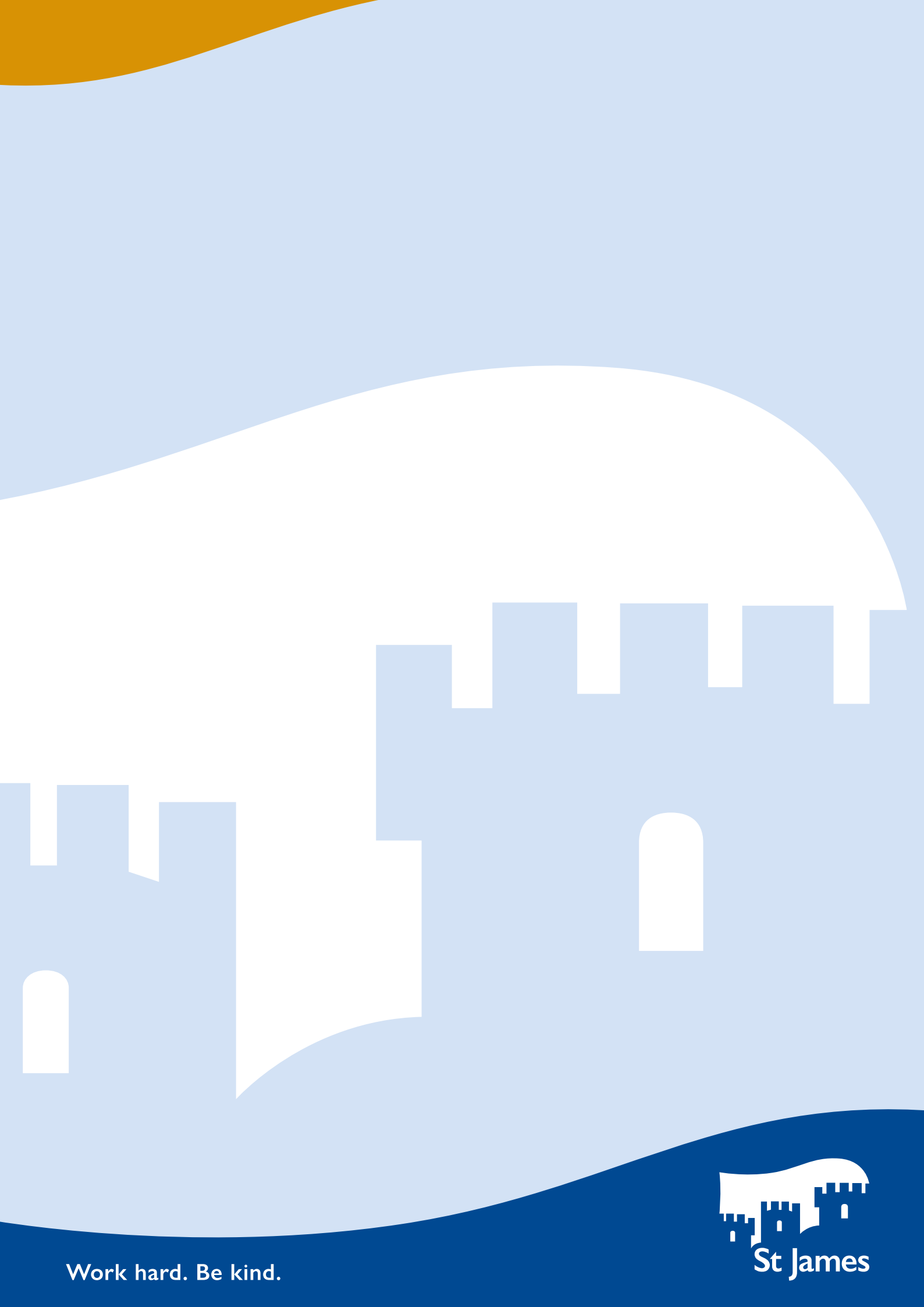


# Ground Floor



# First Floor





Work hard. Be kind.

