

Ashby School Transition to GCSE Activity booklet

Name:

Transition KS3—GCSE

This booklet is designed to support you with your transition from Key Stage 3 (Y9) to GCSE (Y10). The activities should help to introduce you to the GCSE subjects you are taking. Please work through the activities in here over the summer ,ready to bring back to your relevant subject teachers in August/September.

Many of the activities in here are based around the Ashby Core 4 Strategies for learning and revising.

- Mind Map
- Flash Cards
- Brain Dump
- Self Quizzing

You will have been introduced to these concepts during PD lessons this term but if you need any reminders about how they work, you can find videos and other resources here:

<https://ashbyschool.org.uk/revision>

Core 4 Booklet:

<https://ashbyschool.org.uk/uploads/files/Ashby%20Core%204%20Booklet%20to%20print.pdf>

Subject	Tick when completed
English	
Maths	
Science	
History/Geography	
French/German	
Option 1 =	
Option 2 =	
Option 3 =	

Contents

- English
- Maths
- Science
- Geography
- History
- French
- German

Alphabetical by option subject:

- Art
- Business
- Computer Science
- Design and Technology
- Drama
- Engineering
- Food
- Media
- Music
- PE GCSE and PE CNAT
- Philosophy and Ethics
- Psychology
- Textiles

Ozymandias by Percy Shelley

ENGLISH ACTIVITY:

1. Where do you think this story is from if it comes from an 'antique land'?

4. What is a "visage"?

Visage: _____

Why is it "shattered"?

CHALLENGE 1 THINKING:
"Passions" are emotions – How does the traveller know that the sculptor must have understood Ozymandias quite well?

CHALLENGE 2 THINKING:
Two contrasting aspects of Ozymandias' character are revealed here. What are they?

9. What technique is used here?

2. Find out some information about the context of the poem, what kind of poet Shelley was and who Ozymandias was and write it in here:

3. What does "trunkless" and "vast" mean?

Trunkless = _____

Vast = _____

5. What do we learn about Ozymandias from these descriptions?

6. What technique is used here?

7. What does this imperative show about how Ozymandias chose to rule his kingdom?

8. What technique is used here?

I met a traveller from an antique land
Who said: 'Two **vast** and **trunkless** legs of stone
Stand in the desert. Near them, on the sand,
Half sunk, a **shattered visage** lies, whose **frown**,
And **wrinkled lip**, and **sneer** of **cold command**,
Tell that its **sculptor well those passions read**
Which yet survive, stamped on these lifeless things,
The hand that mocked them and the heart that fed.

And on the pedestal these words appear --

"My name is Ozymandias, **king of kings**:"

Look on my works, ye Mighty, and despair!"

Nothing beside remains. Round the decay

Of that colossal wreck, **boundless and bare**

The **lone and level sands stretch far away.**'

10. What do you think the poet suggesting about the power of nature here, compared to human power?

CHALLENGE 3 THINKING:
How and why is nature 'boundless and bare'?

REFLECTION: What are your impressions of Ozymandias as a ruler? Write 3 of your own adjectives to describe him:

Now match quotations that support the adjectives below:

Tyrannical: " _____ "

Arrogant: " _____ "

Ruthless: " _____ "

Maths

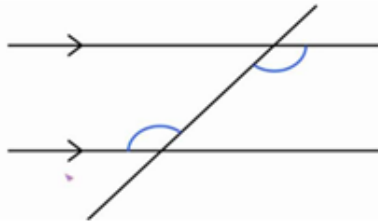
Create Flashcards for the following:

Match the words to the pictures and then write a definition

A



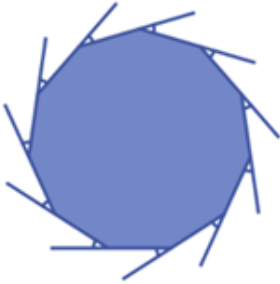
B



C



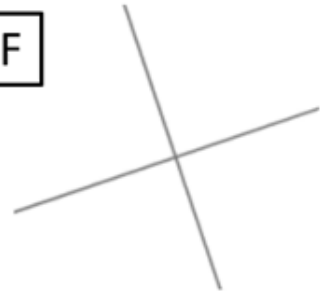
D



E

$$3.8 \times 10^3$$

F



Hexagon

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Trapezium

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Standard Form

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Perpendicular Lines

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Exterior Angles

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Alternate Angles

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Science

Over the last two terms of Year 9 you will have been working on your first GCSE science topics. Now produce a set of revision flash cards for the topics you have been taught.

If you need help with how to produce the flash cards, watch the video on the Ashby School website at www.ashbyschool.org.uk/revision

Bring your flash cards with you to your first Year 10 lessons and show your teachers.

Sources of information to use are:

Freesciencelessons.co.uk videos

These videos are excellent for creating flash cards. Watch a video and try to create a bullet point summary using the key scientific words.

<https://www.freesciencelessons.co.uk/gcse-biology-paper-1/cell-biology/>

www.freesciencelessons.co.uk/gcse-chemistry-paper-1/atomic-structure-and-the-periodic-table/

www.freesciencelessons.co.uk/gcse-physics-paper-1/energy/



BBC Bitesize website

There are revision guides, podcasts, videos, quizzes and past exam questions on this site.

- Biology

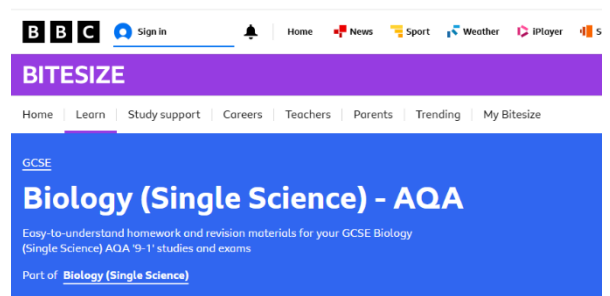
www.bbc.co.uk/bitesize/examspecs/zpgcbk7

- Chemistry

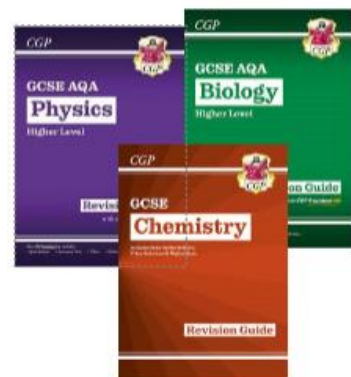
www.bbc.co.uk/bitesize/subjects/zs6hvcw

- Physics

www.bbc.co.uk/bitesize/subjects/zpm6fg8



CGP Revision guides



Science

Biology

Cell Biology

1. Draw and label a plant and animal cell
2. Draw and label a prokaryotic cell
3. Give three differences between prokaryotic and eukaryotic cells
4. Draw and label an example of a specialised cell. Explain how it is adapted to its function.
5. Describe the three processes of movement into and out of cells (diffusion, osmosis and active transport)
6. Define what a stem cell is
7. Describe the two types of microscopes and explain the advantage of using an electron microscope
8. Describe the stages of the cell cycle

Infection and Response

1. Name the 4 types of pathogen
2. Define what communicable disease means
3. Describe how the spread of i) HIV ii) Measles can be prevented
4. Describe some plant defences.
5. Describe what an antibiotic does
6. When new drugs are developed researchers are checking the drug for efficacy, side effects and dosage. Define each of these words.

Chemistry

Atomic Structure and the Periodic Table

- 1) Draw and label the plum-pudding model of an atom.
- 2) Draw and label the nuclear model of an atom. Annotate one similarity and one difference between the two models.
- 3) Draw a modern structure of an atom and label the three sub-atomic particles. Highlight their charges and relative masses.
- 4) Draw an outline of a periodic table, label:
 - a. Metals and non-metals
 - b. Alkali metals
 - c. Halogens
 - d. Noble gases
- 5) Which separation technique would you use for (in each case draw a diagram of the equipment you would use):
 - a. Salt from water
 - b. Sand from water
 - c. Coloured compounds in a sample of food colouring.

Science

Chemical Changes

- 1) Draw a pH scale and annotate where the following would fall on the spectrum:
 - a. Hydrochloric acid
 - b. Sodium hydroxide
 - c. Ammonia
 - d. Water
 - e. Vinegar
- 2) Write the ionic equation for neutralisation.
- 3) Complete the following reactions:
 - a. Zinc + Sulphuric acid \rightarrow _____ + _____
 - b. Iron oxide + Hydrochloric acid \rightarrow _____ + _____
 - c. Calcium carbonate + Nitric acid \rightarrow _____ + _____ + _____
- 4) A student wants to investigate the reactivity of magnesium, zinc and copper with dilute hydrochloric acid. Outline a method that a student could do in order to investigate the metals reactivity.

Physics

Energy

1. List the ten types of energy.
2. What are the energy changes when a television is working?
3. Write out the equations for:
 - a. Kinetic energy
 - b. Gravitational potential energy
4. What are the **advantages** of non-renewables?
5. What are the **advantages** of renewables?
6. Write the equations for:
 - a. Power
 - b. Efficiency

Particle nature of matter

1. Draw diagrams to represent the three states of matter.
2. What is the definition of density? What is the equation for it?
3. How can density be measured for an irregular object?
4. What two energies make up internal energy? How can it be increased?
5. What is the definition of specific heat capacity? What is the equation for it?
6. Write a method explaining how you could measure specific heat capacity.
7. Explain how a gas exerts pressure in terms of its particles.

Geography

Topic: Natural Hazards - Comparing the Haiti and Japan Earthquakes

Task 1: Earthquake Case Study Detective

Use classroom resources or online research (BBC Bitesize, Oxfam, National Geographic) to complete a comparison table on the earthquakes in Haiti 2010 (LIC) and Japan 2011 (HIC)

In your table include:

Magnitude

Date & Location

Primary Effects

Secondary Effects

Immediate Responses

Long-term Responses

Task 2: Why Was One Worse?

Write a short paragraph or create a diagram to answer the following question:

"Why did the Haiti earthquake cause more damage and deaths than the Japan earthquake, even though it was weaker?"

Include factors such as:

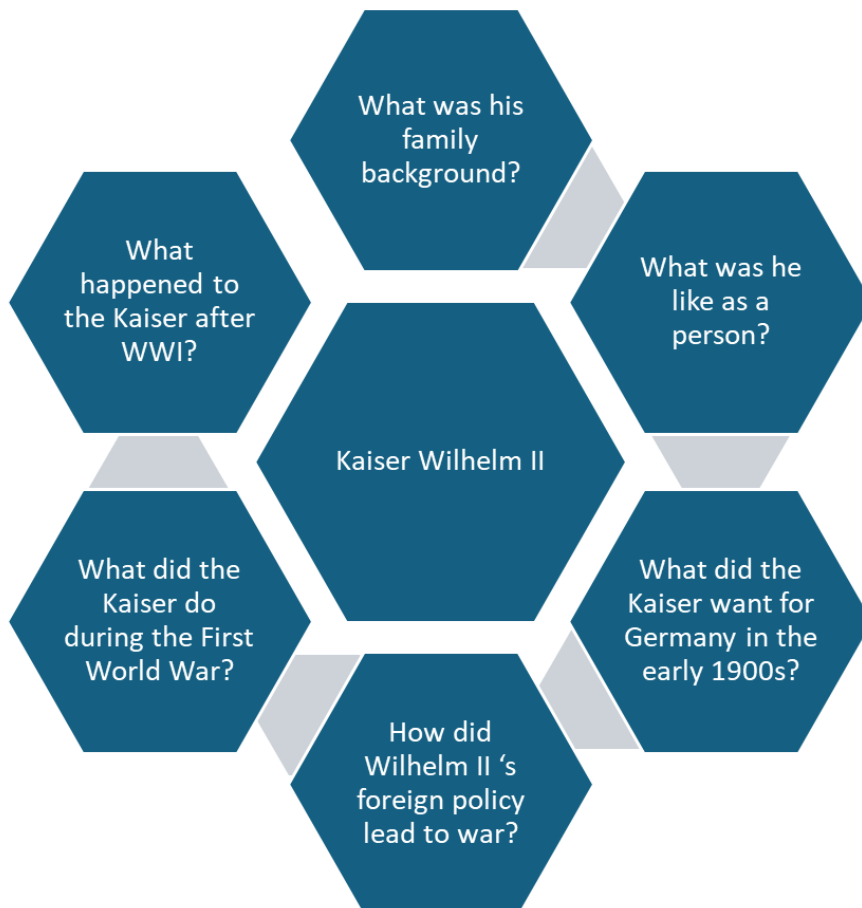
- Level of development
- Building quality
- Emergency services
- Preparedness and education

History

Who was Kaiser Wilhelm II and how did he contribute to the First World War?

Kaiser Wilhelm II is a key individual that you will study in your first GCSE History Unit, Conflict and Tension 1894-1918. Using the resources below produce your own mind map explaining who he was and how he contributed to the First World War. Use the questions in the hexagons to help you complete your **mind map**.

- <https://www.britannica.com/summary/William-II-emperor-of-Germany>
- https://www.bbc.co.uk/history/historic_figures/wilhelm_kaiser_ii.shtml
- <https://www.tutor2u.net/history/reference/kaiser-wilhelm-ii-1>
- <https://www.iwm.org.uk/history/how-kaiser-wilhelm-ii-changed-europe-forever>



French

To go - "aller" in past/present/future



Aller – to go

"Aller" is an irregular verb which means it does not change normally and must be learnt.

Past



Je suis allé(e) = I went
(If you are a girl, you need the extra "e")

Present



Je vais = I go
J'aime aller = I like to go

Future



Je vais aller = I am going to go
Je veux aller = I want to go
Je voudrais aller = I would like to go

Places in town

- au café – to the café
- au magasin de sport – to the sports shop
- au magasin de musique – to the music shop
- au grand magasin – to the department store
- au magasin de chaussure – to the shoe shop
- à la gare – to the train station
- à la boulangerie – to the bakery
- à la confiserie – to the sweet shop
- à la pâtisserie – to the cake shop
- à la librairie – to the book shop
- à l'hôpital – to the hospital
- à l'épicerie – to the green grocers
- aux magasins – to the shops

Task 1: Match the French to the English.

- | | |
|------------------------|------------------------|
| 1. Je suis allé | A. I really like to go |
| 2. Je vais aller | B. I want to go |
| 3. Je vais | C. I don't like to go |
| 4. Je veux aller | D. I went |
| 5. Je n'aime pas aller | E. I go |
| 6. J'aime bien aller | F. I am going to go |

Task 2: Translate these into French. Then categorise them by their gender (masculine/feminine)

- | | | |
|------------------|-------------|----------------|
| hotel | hospital | train station |
| shoe shop | supermarket | |
| bakery | book shop | post office |
| *swimming pool | | *sports centre |
| *police station* | | *town hall* |
- *use www.wordreference.com for these*

Task 3: Make a sentence with the first letters from each word. They are in past/present/future.

e.g. J V A M D S = Je vais au magasin de musique.

I go to the sports shop.

1. J V À L P =
2. J S A À L'É =
3. J D A À L L =
4. J V A G M =
5. J S A A M D M =

Task 4: Untangle these sentences to make them into just French then just English.

1. J'aime to go au shop de chaussures
2. Je suis went à the piscine
3. I veux aller to la boulangerie
4. Je would like aller au cinema
5. Je go au cafe avec my amis
6. Je déteste to go à la cake shop

Task 5: Translate these into French

1. Normally I go to the supermarket
2. Yesterday I went to the music shop
3. Tomorrow I am going to go to the train station
4. I love to go to the cake shop and the sweet shop
5. I would like to go to the sports centre.

Extra challenge – un défi



Use the **Ashby Core 4 strategy** – make flash cards to learn the difference forms of aller.

Make a comic strip in 3 tenses to describe where you went, go and are going to go.

Create a song/rap about the verb "aller" with different shops/places in town

Look up 5 more places in town that you go to. Write down the French/English

German

Create a presentation explaining how to use the German word "weil" (because). This can be presented on A3 or A4 paper, in a PowerPoint or on revision cards. Please use the internet to help you and include colours and pictures in your presentation if possible.



Art

Over the summer we'd love to see what artwork you like to create. What you make and how you make it is totally your choice. You will bring this artwork into the first GCSE Art lesson after the summer holiday.

What could you make?

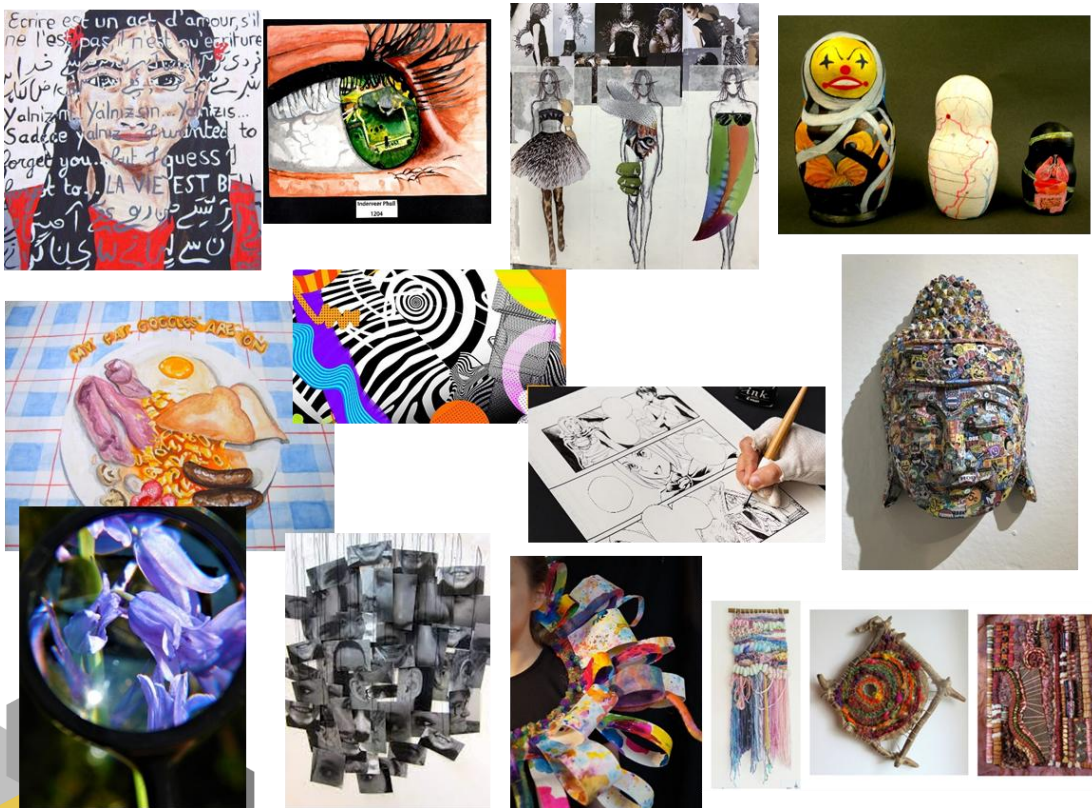
Drawing? Painting? Sculpture? Photography? Textiles? Digital artwork? Collage? Printmaking? Journal? Hanging Mobile? Illustration? Graphic Design? Magazine cover? Mood board? Crotchet, Scrap booking etc.....

It's important that this is your own work. Be original and do not copy someone else's work, but you can show us how you are inspired by others work.

Think about what inspires you? People? Places? Objects? Music? Books? Films? Sport? Hobbies? Baking? Friends? Family? Holiday places? Languages? Think about how you could COMMUNICATE your interests in your artwork. It can be Abstract or Realistic.

Think about what art materials and techniques you have explored before in Key Stage 3 and out of school.

The size of your work is up to you. Just remember you need to bring it into school with you. This is a measure of how committed you are to Art and what interests you about the subject.



Business Studies

You should choose a well known entrepreneur

(an entrepreneur is a person who sets up a business or businesses, taking on financial risks in the hope of profit.)

You should then create a mind map of this entrepreneur covering the areas detailed below:

Why did the entrepreneur set up this business?.....

Background of the entrepreneur....

Current businesses are....

A case study of an entrepreneur

Name of entrepreneur chosen....

I'm interested in this entrepreneur because.....

Characteristics of the entrepreneur are....

Future plans or ideas...

Any further information....?

Computer Science

Task 1 : Create a mindmap about the GCSE topic: **Computer Systems** (e.g. input/output devices, CPU, RAM/ROM and more!)

Your mind map should:

- Use colour to separate sub-topics
- Include key vocabulary
- Show examples, diagrams, or mnemonics where helpful

Purpose:

To start your GCSE Computer Science journey by building an overview of the subject and practicing how to revise effectively using mind maps and self-quizzing.

Helpful resources:

- 5 videos from the Craig 'n' Dave YouTube playlist: <https://tinyurl.com/5mccjz46>
- BBC Bitesize: <https://www.bbc.co.uk/bitesize/guides/zbfny4j/revision/1>

Task 2 : Generating quizzes using ChatGPT

- Use ChatGPT to upload a picture of your mind map and get it to generate 10 questions from this. **(you might need to create a free account on ChatGPT first!)**
- If the above doesn't work, use a useful prompt instead such as *"Generate 10 questions with answers based on OCR GCSE 1.1 – systems architecture"*.
- Make sure the questions **are** related to the content of your mind map
- Have a go at answering the questions without looking at the answers!

Submission

You will need to submit your poster and quiz by bringing it in with you on your first lesson back

Computer Science

Named Designers

Investigate one designer from the following list and create a case study mind map about them and their work.

Select your three favourite creations from the designer.

Include at least one image of their products and an explanation of why you chose each of the three.

Write approximately 300 words about the designers' work and their history

Graphic design	Textile design	Architecture	Product / industrial design
Harry Beck	Coco Chanel	Marcel Breuer	Gerrit Reitveld
	Alexander McQueen	Norman Foster	Ettore Sottsass
	William Morris	Charles Rennie Macintosh	Raymond Tempplier
	Mary Quant	Aldo Rossi	Louis Comfort Tiffany
	Vivienne Westwood		Alec Issigonis

Drama

Drama Review: *Find Me* by Olwen Wymark

You have watched a performance of 'Find Me' in your Drama lessons; performed by the year 10s. Based on that performance, complete the following review."

Name: _____

Class: _____

Date of Performance: _____

What was the play about? What is the plot? What were the themes?

How did the actors create the role of Verity? How did they use multirole?

How did the audience use the stage space, lighting and sound?

What were the most effective moments? (Remember to explain why they were memorable)

What was your overall opinion of the performance. How did it impact you as a member of the audience?

Engineering

Famous Engineers

You are required to explore the works of the following 8 Engineers – past and present, look at what they did and consider the times they were working in and the affect that their work had on the world.

1. Complete an A4 **Mind Map** for one of the engineers (James Dyson, Isambard Kingdom Brunel, Elon Musk, Archimedes, Patricia Bath, Edith Clarke, Stephanie Kwolek, Ada Lovelace)

Add keywords that sum up their key designs.

2. Produce one A4 page of pencil drawings of work by one of the engineers. ANNOTATE YOUR DESIGNS TO EXPLAIN WHAT YOU LIKE AND WHY.



Food Technology

Food - Nutrient Summary Table

Make your own FLASHCARDS by filling in the missing information using class notes or textbook.

Nutrient	Macro or Micro	Function in the Body	Food Sources
Carbohydrates	Macro	Provide energy	grains (like bread, pasta, rice, and cereals), fruits, vegetables (especially starchy ones like potatoes, corn, and peas), legumes (beans and lentils), dairy products.
Vitamin A			
Vitamin B1 (Thiamine)			
Vitamin B2 (Riboflavin)			
Vitamin B3 (Niacin)			
Vitamin B6			
Vitamin B12			
Vitamin C			
Vitamin D			
Vitamin E			
Vitamin K			
Calcium			
Iron			
Magnesium			
Phosphorus			
Potassium			
Sodium			
Zinc			
Water			
Dietary Fibre			

Media

As with all media products, magazines have specific target audiences and are designed to appeal to these specific people. That said, all media products follow conventions of their form. You have already looked at the conventions of film posters. Now let's look at another form of print media- Magazines.

Masthead- This is the title and/or logo of the magazine. It's always on the cover, normally always in the same place, and it identifies the brand. There may be a line of text under or next to the logo – this is often called the 'tagline', and it explains more about the brand.

Main image- This is as it sounds – the photograph, illustration or (sometimes) text that is biggest on the cover. This needs to be eye-catching, and tell your potential reader what the magazine is about.

Main coverline- This is the text that goes with your main image. It needs to explain more about the story, and pull the reader in further. See the Expert page for tips on writing coverlines. Occasionally a cover will have no coverlines on it – but this is rare.



Coverlines Aside from the main coverline, there will be others that flag up different stories inside the magazine. The number of coverlines will depend on the type of magazine and the audience it is aimed at.

You need to design a magazine cover aimed at one of the target audiences below. You can choose which target audience you appeal to. You can only choose one and you must meet all of the minimum requirements for your choice.

You can use Canva.com, photoshop or hand draw your magazine. Do not worry if you are bad at drawing- your art style and quality will not be considered when looking at your work. We are looking for your use of conventions as labelled in the example above. You should aim to use a deliberate colour scheme on your magazine cover that links to your target audience. Usually, magazines won't use more than 3 colours in a colour scheme.

Target audiences:

Young females aged 16-21 with interests of fashion, make up and celebrities. The feature story should be about a Youtube controversy linked to one of the key interests.

Males aged 25-40 with interests in cars, technology and sport. The feature story should be an interview with a celebrity linked to one of the key interests.

Music

Match up the Elements of Music with their definitions – then make revision cards with these key elements.

Use these cards to test your knowledge of these key words

Performance Forces	All the sections in a piece of music and how it is put together
Structure	The volume of a piece of music
Melody	All the instruments and voices in a piece of music
Texture	The patterns of note lengths
Tonality	The key of a piece of music – major or minor
Harmony	The speed of the music
Tempo	The time signature – how many beats are in a bar
Rhythm	The main tune/theme in a piece of music
Metre	The chords in a piece of music
Dynamics	The different layers and how they relate to each other

PE – Cambridge Sport

SPORT AND THE MEDIA

In Year 10 your first NEA module is to create a study for a sports club, focusing on their usage of media and suggesting ways to improve.

This research booklet outlines different media sources that sports clubs can use.

Independent research is a key asset for this course.

Your research and findings within this task can be applied directly to your first NEA module, when we begin the new year.

For each source use the internet (Google) to help you answer the questions and create a mind map using each heading and answering the two questions posed:

Mindmap 1- Sources of Media

Social Networking

- What is social networking? Give examples
- What do sports clubs post of social networks?

Media Sharing Sites

- What is a media sharing site? Give examples
- What do sports clubs post on these websites?

Streaming

- What is a Streaming website?
- Give examples of a streaming website

Websites

- Give an example of a sports club's website: www._____
- What do sports clubs have on their websites?

Blogs

- Using 'Google' find an example of a 'Boxing Blog': www._____
- Summarise, what content is on that blog?

newspaper?

PE – Cambridge Sport



Mind Map 2—Sources of media

Terrestrial Television

- What is Terrestrial Television?
- What sports / sports programmes are shown on terrestrial television?

Satellite Television

- What is Satellite Television
- What sports channels are on Satellite TV in the UK?

Radio

- What is National Radio?
- There are two dedicated National Radio stations for sport, what are they?

Books

- What types of written sports books can you find in the UK (eg. Rule books, biographies)

Newspapers

- Give an example of a UJ National Newspaper
- What sports are covered in this newspaper?



PE – GCSE

.The Skeletal and Cardiovascular System

In Year 10 your first few modules are based around the skeletal and the cardiovascular systems.

This research booklet outlines different areas of these systems you need to be aware of.

Independent research is a key asset for this course.

Useful websites include:

BBC Bitesize- OCR

Youtube- OCR PE Complete

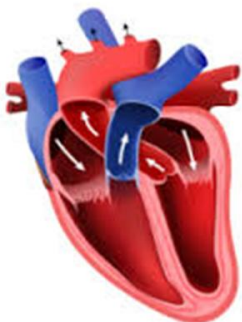
For each source use the internet (Google) to help you answer the questions and create a mind map using each heading and answering the two questions posed:

Mind Map 1—Skeletal System



1. Label the skeleton
2. Name the 6 Synovial Joints and give an example:
3. Name and describe the 6 functions of the skeleton:
4. Name the 6 types of movement:

Mind Map 2—Cardio-Vascular System



1. Label the Heart
2. Explain the roles of the following blood vessels: arteries, veins, capillaries
3. In list form write down the pathway of blood through the heart
4. Give a definition for: Heart rate, Stroke volume, Cardiac output

Religious Studies (Philosophy & Ethics)

In RS we will be studying various issues from three different religions / worldviews:

- Christianity
- Buddhism
- Humanism



Task 1: Create an information mindmap or poster on each of these religions / worldviews

Below are some of the questions we'll be exploring in RS:

- Is there any proof that God exists?
- Why do bad things happen to good people?
- Is it ever right to end a life?
- When does life begin?
- What happens after we die?
- Is forgiveness always possible?
- Should freedom of speech ever be limited?
- Are men and women truly equal?
- Are science and religion compatible?



Task 2:

- **Put a * next to the two questions you are most interested in.**
- **Write a paragraph explaining your own viewpoint on the question. Make sure you give reasons for your thinking.**
- **Explain why someone might disagree with you.**

Important: Feel free to use the internet to research, but please make sure all writing is your own work and you understand what you have written!

Optional task: There is a podcast series which covers lots of the content from the GCSE RS course. Listen to some of the episodes here: <https://www.therepodcast.co.uk>

Psychology

Task 1: Murdock's Memory Experiment

Title: "Why Do We Remember the Beginning and End?"

Read the short summary of Murdock's study:

Murdock gave participants lists of words and asked them to recall them. He found that people tend to remember the first few (primacy effect) and the last few (recency effect) words best. This formed a 'serial position curve'.

2. **Activity:** Ask a family member or friend to read you a list of **15 words**, one at a time. Try to recall as many as you can. Then reflect:

- o Which words did you remember?
- o Was it easier to remember the first or the last ones?

Questions:

- a) What does your result show about how memory works?
 - b) Why do you think psychologists use word lists in experiments?
 - c) Give **one strength** and **one weakness** of Murdock's study. Explain your ideas.
-

Task 2: Bartlett and the War of the Ghosts

Title: "Is Memory Like a Camera?"

Read this adapted story:

"Two young men went hunting seals. One of them was told he would die. He ignored this and went with the others. On the way back, he felt sick and later died."

2. **Wait 10 minutes**, then try to **write the story from memory**.

3. **Compare** your version to the original:

What did you change, forget, or add?

Why do you think that happened?

Questions:

- a) What does this tell us about how memory works?
 - b) What is a "schema"? How might it affect memory?
 - c) Give one strength and **one weakness** of Bartlett's study.
-

Challenge Question:

"Which study is more useful for understanding memory in real life – Murdock's or Bartlett's? Give your opinion with reasons."

Textiles

Create your own set of Sun Printing Fabric Samples

<https://www.youtube.com/watch?v=IXA5GLmaTq4>

You will need:

- Cotton fabric (old pillowcase will do)
- Acrylic paint
- Water
- Paint brush

You could use:

- Leaves/ petals
- flower heads
- Feathers
- Or anything else



You could sew into them to add detail



