

Distance learning

Guidance for teachers in the event of disruption



$$y = \sqrt{3} \cdot 27 \cdot 5$$

$$y = \sqrt{16} \cdot 0 \cdot 009$$

$$1) \quad \left(\sin x - \frac{\sqrt{3}}{2} \right) \cdot \sqrt{3}x^2 - 7x + 4 = 0 \iff \begin{cases} x = \frac{1}{2} \cdot \frac{\pi}{3} + 2\pi n \\ x = \frac{1}{2} \cdot \frac{2\pi}{3} + 2\pi n \end{cases}$$

$$\left(\sin x - \frac{\sqrt{3}}{2} \right) \cdot \sqrt{3}x^2 - 7x + 4 = 0 \iff \begin{cases} \sin x = \frac{\sqrt{3}}{2} \\ 3x^2 - 7x + 4 = 0 \end{cases}$$

$$\iff \begin{cases} \sin x = \frac{\sqrt{3}}{2} \\ 3x^2 - 7x + 4 = 0 \end{cases} \iff \begin{cases} x = \frac{1}{2} \cdot \frac{\pi}{3} + 2\pi n \\ x = \frac{1}{2} \cdot \frac{2\pi}{3} + 2\pi n \end{cases}$$

If $3 < \pi < 4$, then $1 < \frac{\pi}{4} < 4$

$$\{1, \frac{4}{3}\} \cup \{(-1)^n \cdot 2\}$$

$$2) \quad |\cos x + \sin x| =$$

$$\iff \begin{cases} \cos x + \sin x \geq 0 \\ \sin 2x \geq 0 \end{cases}$$

$$\iff \begin{cases} \sin 2x = 1 \\ \sin 2x = \frac{1}{2} \end{cases}$$

$$x = \frac{\pi}{4} + \pi n, n \in \mathbb{Z}$$

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Introduction

Guidance for teachers

In the event of further disruption, the availability of asynchronous learning content is important to ensure continuity of learning. In this document practitioners will find a wealth of content that can be utilised to support learners who have been unable to access lessons face-to-face. It is important for practitioners to understand the difference between asynchronous vs synchronous learning and appreciate the pros and cons of each so that they can plan appropriate learning opportunities for their learners.

Asynchronous vs synchronous learning

Asynchronous learning

Asynchronous learning content allows learners to engage with learning materials in their own time and at their own pace, from wherever they are. The designed content makes good use of technology to engage learners through a range of media including video and interactive content.

Pros and cons for asynchronous learning

Advantages

- Learners can access content anytime, anywhere.
- Learners can engage with content at their own pace.
- Learners can get instant feedback to online quizzes and activities to check their progress.
- Learners can use the content to address gaps in their learning.

Disadvantages

- A suitable device and internet connection is required to content.
- Learners need to be self-motivated in order for them to engage with learning.
- Learners can feel isolated.
- Lacks access to the teacher.

Synchronous learning

Synchronous learning is facilitated via face-to-face lessons conducted online. Everyone learns the same content at the same time with the teacher present. This allows teachers to demonstrate aspects of the lesson and ask questions as they go. It also allows them to access model learning. Learners can be engaged via interactive elements such as polls, chat rooms and shared documents.

Pros and cons for synchronous learning

Advantages

- Greater interaction between learners and teacher.
- Opportunities for learners to ask questions.
- Immediate feedback from teacher.
- Teacher can be assured that learners are engaging with content.

Disadvantages

- Strong internet required for live-streaming.
- Learners need access to appropriate quiet space.
- Learners require webcam and microphone.
- Lessons are scheduled at times that may not suit everyone.
- Can be hard for student to speak up.

Support for learners in the event of displaced learning

The Welsh Government and WJEC have worked together with practitioners to design and deliver a range of learning materials to support teaching and learning at both GCSE and A level. These materials will support blended learning in addition to aiding teachers in providing for learners who have gaps in their learning, and help make up for lost teaching time.

Designing blended learning

In simple terms, blended learning is the delivery of learning in both a classroom situation and via online sessions, either synchronously or asynchronously. The importance of this type of learning became evident during the disruption caused by the Covid pandemic. There are numerous benefits of continuing to adopt this approach to teaching and learning. Blended learning will not only ensure a continuity of learning should any further disruptions be encountered, it will also ensure an equity, so that all learners have access to the same high quality materials, wherever they are and whatever their circumstances.

Adjusting teaching and learning to a hybrid method that considers the learning style and experience of everyone involved, will create a more inclusive and accessible environment where everyone, regardless of their ability or location, can experience learning the same way.

Content available to support blended learning

All GCSE and A level subjects have the following content available:

- Knowledge Organisers
- Exam Walk Throughs

In addition, certain subjects also have:

- Blended Learning lessons
- Student Planners
- Sample medium term plans
- Sample lesson plans
- Playlists (available on Hwb)

The full range of resources can be accessed here:

<https://educationalresources.wjec.co.uk/en/>

All lesson materials are listed by subject and unit at the end of this document.

Support for learners who are unable to access online learning

To mitigate the risk of learners being unable to access online learning and to ensure equity, all blended learning content has been updated so that the lessons can be downloaded and printed as learning booklets. The knowledge check and exam practice activities have been re-structured, so that they work in a print format. This layout will mean that where answers were available to students in the digital content, they will also be available in the workbooks.

All images that are not vital to the lesson have been removed from the workbooks to minimise printing costs for centres. Teachers have the option to print a series of lessons as one workbook or simply print one lesson to give to learners as a catch-up for a missed session.



How to get the most out of the WJEC Blended Learning Units

These resources were built specifically to support a hybrid approach to learning. If used as a one-off with no synergy between these lessons and what happens in the classroom, neither learners nor teachers will reap the benefits that they were designed for. They should be used in conjunction with face-to-face classroom teaching, or they can be complemented by the online lessons offered by [Carlam Cymru](#).

The resources are ideal for making up for lost face-to-face teaching time if used in the following ways.

Flipped classroom

The units can be shared with learners either as a whole block of work or as individual lessons. This can be in a digital or print-based format, depending on individual circumstances. Learners should be encouraged to engage with the content before any face-to-face lessons. This allows them to work through the material in their own time at their own pace, going back over concepts as many times as they need until they feel confident. The student planners available for each Blended Learning subject can be used for learners to keep track of their progress.

As the learners will all come to class with the same knowledge of the topic, teachers can then make better use of their face-to-face time with learners to model and develop higher order skills. Not only is this a great way to make up for any lost teaching time, but also a successful way to ensure that all content from the spec can be covered more efficiently.

This [animation](#) discusses flipped learning in more detail.

Station rotation

The resources could be utilised in class as either paper-based work or digital (or both) in one of the stations of learning set up for a specific lesson.

The class could be split in the following way:



Students using BL content



Group work



Teacher focus group

This could be used when delivering a new topic/lesson or could be used after learners have engaged with the content at home. Lessons would start in the conventional way with direct instruction from the teacher and then the class would rotate around the following stations for the main part of the lesson.

Students using Blended Learning content:

Learners can gain or consolidate knowledge of a topic using the Blended Learning unit.

Group work:

Learners could be given written tasks to complete such as past exam questions, or the time could be used for peer review or problem solving.

Teacher focus:

Teachers can work with a small group of students using the time to focus on developing specific skills, challenging the more able or giving greater support to those in the class that are struggling.

This [animation](#) discusses station rotation in greater detail.

Lab rotation

Lab rotation works in the same way as station rotation but is a great alternative if there is a computer lab and extra teaching support available.

The advantage of this is that teachers can focus solely on a smaller group as someone else supports the rest of the class.

This [animation](#) explains lab rotation in more detail.

Supplemental learning

This works in the same way as a conventional homework task. It allows students to continue their learning outside of the classroom.

Teachers could differentiate the work by allowing some learners the opportunity to consolidate their understanding of the topic taught in class, while more able learners could be encouraged to focus on extension tasks and exam practice.

This [animation](#) gives further ideas.

Flex model

The flex model is ideal for revision lessons as it allows the teacher to set individualised tasks for each learner depending on the gaps in their knowledge. It also allows learners to take control of their own learning and select the units they want to work on based on the areas of weakness that they have identified in their Student Planner.

The teacher acts as a facilitator in this model. Learners can be supplied with the units in a workbook or on a digital device.

This [animation](#) explains the model.

Mastery learning

The mastery learning strategy supports learners in their revision. The blended learning units can be accessed anywhere at any time, as many times as a learner needs until they feel that they have grasped a topic entirely.

The knowledge check quizzes ensure that learners actively engage with the content of the lesson and the end of topic exam questions allow them to apply what they have learned.

This [animation](#) discusses mastery learning.

Setting up for success

To ensure learners get the very most out of any learning that needs to take place away from the classroom they should be given the following advice:

- Decide when it is best to learn. For some students that may be first thing in the morning, for others they may not like getting started until after lunch. This learning is self-directed, so they need to identify the time of the day when they feel most productive.
- Find a quiet space to focus on learning. This could be difficult with other members of the family around, but they could consider working at the local library or another community facility which is close to them.
- Make sure you have everything you need for the lesson. Even if completing the lessons digitally there will be times when learners will need to write things down or answer exam questions. They should always have a pen and paper ready.
- Find a learning buddy. Being self-motivated can be tricky, especially if there are distractions at home. Encourage learners to find a learning buddy who is happy to work on content at the same time. They can be virtual buddies using messaging facilities such as WhatsApp to discuss the content of the lesson and ask each other questions, or they could arrange to meet to do the work together. By arranging to meet someone either online or in person to work on something together, it makes an individual accountable and they are less likely to avoid doing the work. It can also help learners feel less isolated and give them confidence as they have someone else to test out ideas with or clarify information in a mutually supportive environment.



How to get the most out of the WJEC Knowledge Organisers

The Knowledge Organisers available have been designed to print as A3. They could be printed and used as a display in the classroom and given to learners to add to their books at the start of a unit. This will help learners to put their learning in context and help them see the bigger picture and how each lesson builds on the knowledge of the last. The facts within the Knowledge Organisers are the foundation for all future learning on a topic.

Despite the benefits of their use at the start of a topic and for snack sized revision, the secret to their success is to revisit them on a regular basis allowing learners to assimilate the content and apply that gained knowledge to problems posed.

If there is no connection made by the teacher between the Knowledge Organisers and the lessons being taught then learners will see them as a list of facts and will probably stick the work in their book and not look at it again.

Knowledge Organisers are used by many schools as a focussed curriculum guide that aids their planning. Without doubt the most beneficial use is for retrieval practice. The content within the Knowledge Organisers can help teachers devise quick starter or plenary activities to assess gaps in knowledge and aid planning. These could take the form of print-based content such as flash cards or multiple choice quizzes or could be as simple as the teacher asking a question based on something from the Knowledge Organiser.

Retrieval practice needs to be cumulative, so learners need to be tested on the same concepts little and often, with questions worded slightly differently each time so that the learners have to think carefully about their answer.

For information to move from a learner's short-term memory and be stored in their long-term memory they should be encouraged to use the document as frequently as possible. Revisiting concepts and using as a checking tool after completing tasks all aid in developing that vital retrieval skill. The Knowledge Organisers are also a great source of key vocabulary so learners can use them as a handy reference tool for checking their spelling.

These documents are intended to be dynamic learning aids and learners should be encouraged to add to them or use as a basis for developing their own Knowledge Organisers. They should also be encouraged to highlight the concepts they understand so that they have a quick reference point to assess where they need extra support.

How to get the most from the WJEC Exam Walk Throughs



The Exam Walk Through resources offer practical hints and tips on how to effectively approach questions in an examination paper. Using questions from past exam papers, the PPT with audio help and audio script in the notes walks the learner through a mock examination paper, helping them to revise and practise useful exam techniques.

As a downloadable resource, these resources are designed to be used offline. In the event of learners being unable to access a device, the PPT can also be converted to PDF and printed.

These resources can be used in numerous ways for blended learning, either by learners accessing remotely in their own time, or as part of a face-to-face lesson. Learners can complete the “mock” in a single sitting, tackle one or two questions at a time or revisit some parts of the presentation to reinforce their learning.

Appendices: List of resources by subject and level

There are numerous resources available to support a blended learning approach. In addition to the resources previously discussed, [Question Bank](#) and [OER](#) are also great sources of resource support. The playlists for A level subjects are available on the [Hwb platform](#).

Resource guides for each subject that has either Blended Learning or Revision Playlists to support learning are listed below in alphabetical order. These provide links to everything available sorted by resource type and unit covered.

Subjects that haven't been covered with Blended Learning or Playlists still have a host of Exam Walk Through and Knowledge Organiser resources. They can be found [here](#). Simply select your subject and level.

WJEC have also introduced a new search feature that allows easy access to all content suitable for a hybrid approach to learning. This can be found [here](#).

There is also a video available here to show you how to access all new content.

Key:

Qualification level

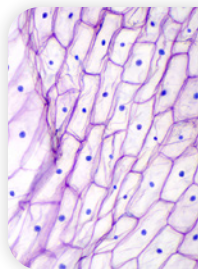
GCSE

GCE A Level



Units

Unit 1



The cell and cell respiration 1.1.1

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Energy and life 1.1.2

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Modern living and energy 1.2.1

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Modern living and energy 1.2.2

 [Blended learning lessons](#)

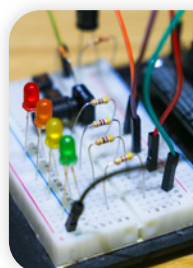
 [Knowledge organiser](#)



Modern living and energy 1.2.3

 [Blended learning lessons](#)

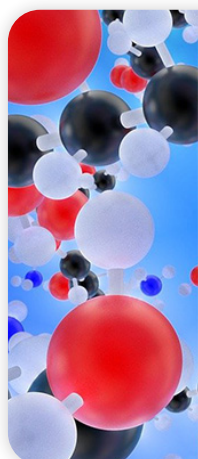
 [Knowledge organiser](#)



Modern living and energy 1.2.4

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Obtaining resources from our planet 1.3.1

 [Blended learning lessons](#)

 [Knowledge organiser – 1](#)

 [Knowledge organiser – 2](#)



Obtaining resources from our planet 1.3.2

 [Blended learning lessons](#)

 [Knowledge organiser – 1](#)

 [Knowledge organiser – 2](#)

 [Knowledge organiser – 3](#)



Obtaining resources from our planet 1.3.3

 [Blended learning lessons](#)

 [Knowledge organiser](#)



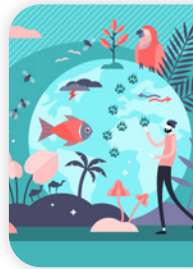
Unit 2



Our planet 2.1.1


 [Blended learning lessons](#)

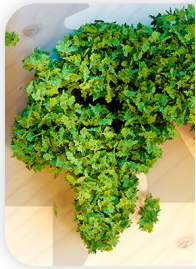
 [Knowledge organiser](#)



Our planet 2.1.2

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Our planet 2.1.3

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Protecting our environment 2.2

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Health, fitness and sport 2.3.1

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Health, fitness and sport 2.3.2

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Health fitness and sport 2.3.3

 [Blended learning lessons](#)

 [Knowledge organiser](#)



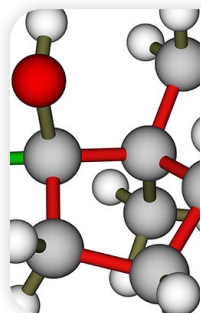
Health fitness and sport 2.3.4

 [Blended learning lessons](#)

 [Knowledge organiser](#)

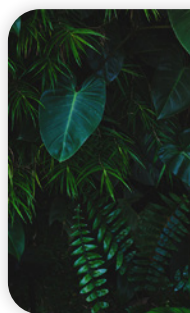


Unit 3



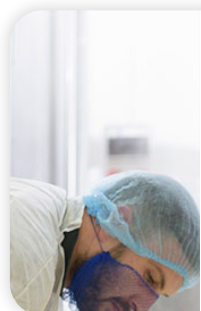
Materials for a purpose 3.1

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Food for the future: Producing food 3.2.1

- [Blended learning lessons](#)
- [Knowledge organiser](#)



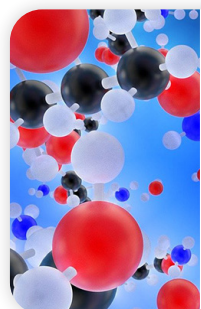
Food for the future: Food processing and spoilage 3.2.2

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Scientific detection 3.3

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Controlling processes 3.4.1

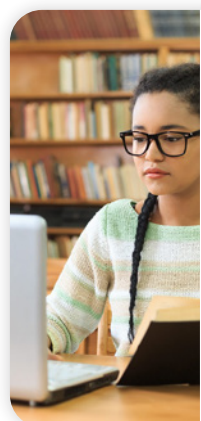
- [Blended learning lessons](#)
- [Knowledge organiser](#)



Controlling Nuclear reactions 3.4.2

- [Blended learning lessons](#)
- [Knowledge organiser](#)

Miscellaneous



Exam walk through (foundation)

- [Foundation unit 1](#)
- [Foundation unit 2](#)
- [Foundation unit 3](#)
- [Foundation unit 4](#)



Exam walk through (higher)

- [Higher unit 1](#)
- [Higher unit 2](#)
- [Higher unit 3](#)
- [Higher unit 4](#)

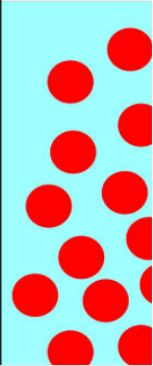


Online Exam Review (OER)

- [Online exam review](#)




Unit 1



Cells and movement across membranes

- [Blended learning lessons](#)
- [Knowledge organiser \(cells\)](#)
- [Knowledge organiser \(enzymes\)](#)
- [Knowledge organiser \(Cells and movement across membranes\)](#)



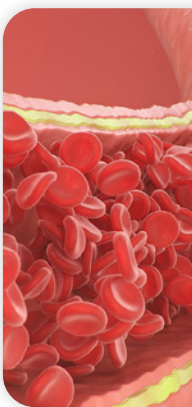
Respiration and respiratory system in humans

- [Blended learning lessons](#)
- [Knowledge organiser \(respiration and the respiratory system\)](#)
- [Knowledge organiser \(smoking\)](#)




Digestion and the digestive system in humans

- [Blended learning lessons](#)
- [Knowledge organiser](#)




Circulatory system in humans

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Additional resources](#)



Plants and photosynthesis

- [Blended learning lessons](#)
- [Knowledge organiser](#)




Ecosystems, nutrient cycles and human impact on the environment

- [Blended learning lessons](#)
- [Knowledge organiser](#)

Exam Practice

Exam Walk Through



Exam walk through

- [Foundation Tier](#)
- [Higher Tier](#)

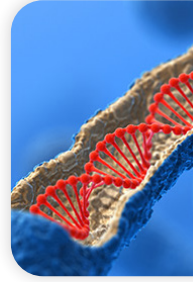


Unit 2



Classification and biodiversity

- [Blended learning lessons](#)
- [Knowledge organiser](#)



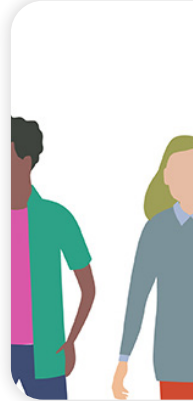
Cell division and stem cells

- [Blended learning lessons](#)
- [Knowledge organiser](#)



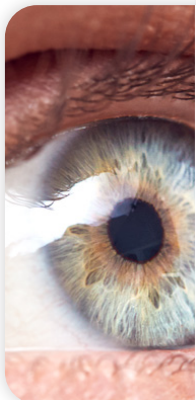
DNA and inheritance

- [Blended learning lessons](#)
- [Knowledge organiser](#)



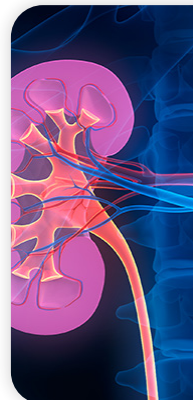
Variation and evolution

- [Blended learning lessons](#)
- [Knowledge organiser](#)



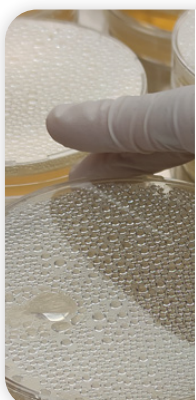
Response and regulation

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Additional resources](#)



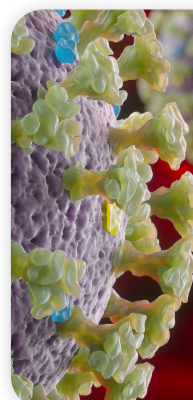
Kidneys and homeostasis

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Additional resources](#)



Micro-organisms and their applications

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Additional resources](#)



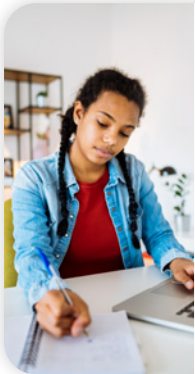
Disease, defence and treatment

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Additional resources](#)






Exam Practice

Exam Walk Through







Exam walk through

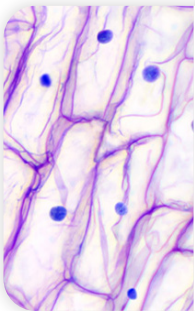
-  [Foundation Tier](#)
-  [Higher Tier](#)




E-sgol lessons

-  [Biodiversity and classification e-sgol lesson](#)
-  [Cell division and stem cells e-sgol lesson](#)
-  [Genetic crosses and constructing Punnett squares e-sgol lesson](#)
-  [Variations and mutations e-sgol lesson](#)


Bridging Unit





Bridging Unit


-  [Blended learning lessons](#)

Miscellaneous






Exam walk through (Double Award)

-  [Unit 1 \(Foundation Tier\)](#)
-  [Unit 1 \(Higher Tier\)](#)




Exam walk through (Double Award)

-  [Unit 4 \(Foundation Tier\)](#)
-  [Unit 4 \(Higher Tier\)](#)

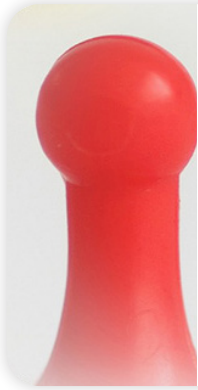


Exam walk through

-  [Unit 3 & 7 \(Practical\)](#)



Blended learning resources



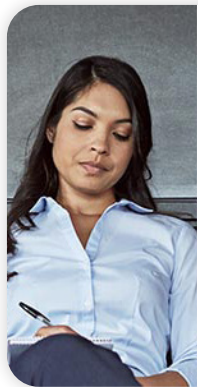
GCSE Business: Marketing

 [Blended learning lessons](#)



GCSE Business: Finance

 [Blended learning lessons](#)



GCSE Business: Human Resources

 [Blended learning lessons](#)



GCSE Business: Business Operations

 [Blended learning lessons](#)



GCSE Business: Business Activity

 [Blended learning lessons](#)



GCSE Business: Influences on Business

 [Blended learning lessons](#)

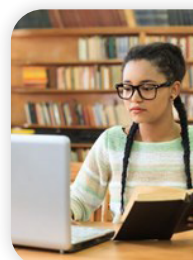
Knowledge organisers



GCSE Business

 [Knowledge organisers](#)

Miscellaneous



GCSE Business

 [Exam walk through](#)



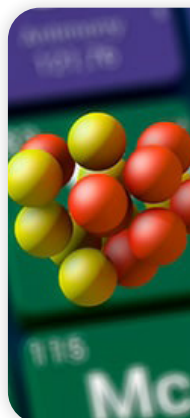
Unit 1



The nature of substances and chemical reactions

[Blended learning lessons](#)

[Knowledge organiser](#)



Atomic structure and the Periodic Table

[Blended learning lessons](#)

[Knowledge organiser \(atomic structure\)](#)

[Knowledge organiser \(Periodic Table\)](#)



Water

[Blended learning lessons](#)

[Knowledge organiser \(hardness in water and solubility\)](#)

[Knowledge organiser \(supply and public treatment\)](#)



The ever-changing Earth

[Blended learning lessons](#)

[Knowledge organiser \(Alfred Wegener and tectonic plates\)](#)

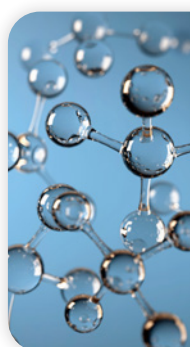
[Knowledge organiser \(man's effect on the atmosphere and test for gases\)](#)



Rate of chemical change

[Blended learning lessons](#)

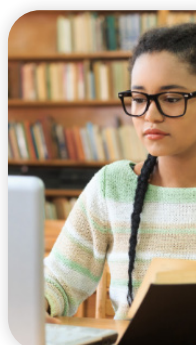
[Knowledge organiser](#)



Limestone

[Blended learning lessons](#)

[Knowledge organiser](#)



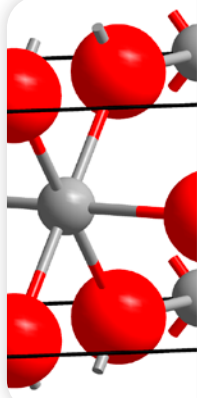
Exam walk through

[Foundation tier](#)

[Higher tier](#)



Unit 2



Bonding, structure and properties


 [Blended learning lessons](#)


 [Knowledge organiser](#)



Acids, bases and salts

 [Blended Learning lessons](#)

 [Knowledge organiser \(acids, bases and salts\)](#)

 [Knowledge organiser \(salt preparation including titration calculations\)](#)



Metals and their extraction

 [Blended learning lessons](#)

 [Knowledge organiser \(metals\)](#)

 [Knowledge organiser \(electrolysis\)](#)



Chemical reactions and energy

 [Blended learning lessons](#)

 [Knowledge organiser](#)

 [Resources](#)

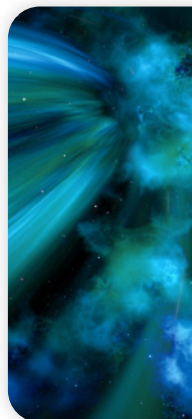


Crude oil, fuels and organic chemistry

 [Blended learning lessons](#)

 [Knowledge organiser \(crude oil and fuels\)](#)

 [Knowledge organiser \(alkanes, alkenes, alcohols and plastics\)](#)

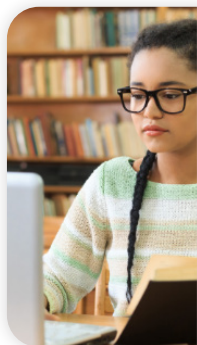


Reversible reactions, industrial processes and important chemicals

 [Blended learning lessons](#)

 [Knowledge organiser](#)

 [Resources](#)



Exam walk through

 [Foundation tier](#)

 [Higher tier](#)



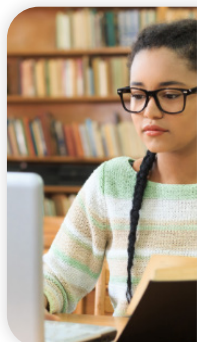
Bridging Unit



Bridging Unit

 [Blended learning lessons](#)

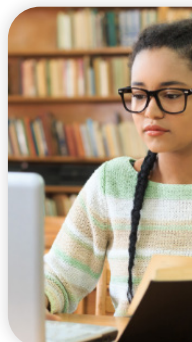
Exam walk through



Exam walk through (Double Award)

 [Unit 2 \(Foundation tier\)](#)

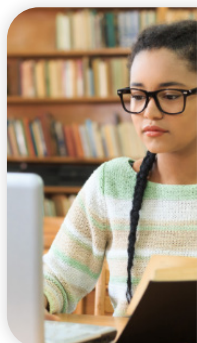
 [Unit 2 \(Higher tier\)](#)



Exam walk through (Double Award)

 [Unit 5 \(Foundation tier\)](#)

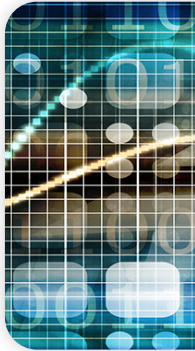
 [Unit 5 \(Higher tier\)](#)





Exam walk through




 [Unit 3 & 7 \(Practical\)](#)

Unit 1



**Hardware**

-  [Blended learning lessons](#)
-  [Knowledge organiser \(pages 2 - 4\)](#)



**Logical operations**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)
-  [Knowledge organiser \(Boolean algebra\)](#)




**Communication**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



**Organisation and structure of data**

-  [Blended learning lessons](#)
-  [Knowledge organiser \(pages 5 - 8\)](#)



**System software**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)
-  [Knowledge organiser](#)



**Principles of programming**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



**Software engineering**

-  [Blended learning lessons](#)
-  [Knowledge organiser \(page 9\)](#)



**Program construction**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)

**Security and data management**

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)

**Ethical, legal and environmental impacts of digital technology on wider society**

-  [Blended learning lessons](#)
-  [Knowledge organiser \(page 10\)](#)



Unit 1: Design and Technology in the 21st century – fashion and textiles



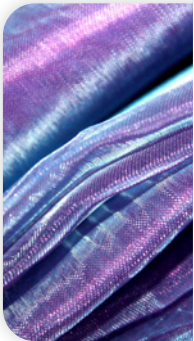
Natural, synthetic, blended and mixed fibres

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Woven and nonwoven, and technical textiles

- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Knowledge organiser](#)



Thermoforming and thermosetting polymers

- [Blended learning lessons](#)
- [Knowledge organiser](#)



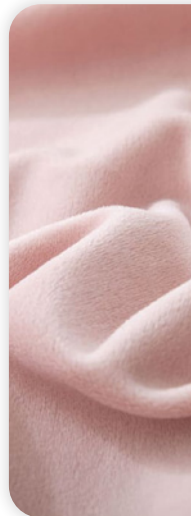
Modern and smart materials

- [Blended learning lessons](#)
- [Knowledge organiser \(modern and smart textiles\)](#)
- [Knowledge organiser \(modern and smart materials\)](#)



The sources, origins, physical and working properties of materials, components and systems

- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Knowledge organiser](#)



The way in which the selection of materials or components is influenced by a range of factors

- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Knowledge organiser](#)



Stock forms, types and sizes in order to calculate and determine the quantity of materials or components required

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Alternative processes that can be used to manufacture products to different scales of production

- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Knowledge organiser](#)



Specialist techniques and processes that can be used to shape, fabricate, construct and assemble a high quality prototype

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Appropriate surface treatments and finishes that can be applied for functional and aesthetic purposes

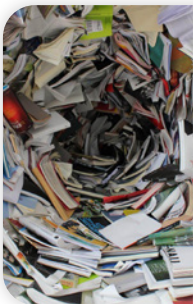
- [Blended learning lessons](#)
- [Knowledge organiser](#)



Product analysis

- [Blended learning lessons](#)

Unit 1: Design and Technology in the 21st century – product design



Papers and boards

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Natural and manufactured timber

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Ferrous and nonferrous metals

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Thermoforming and thermosetting polymers

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Modern and SMART materials

- [Blended learning lessons](#)
- [Knowledge organiser](#)



The sources, origins, physical and working properties of materials, components and systems

- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Blended learning lessons](#)
- [Knowledge organiser](#)



The way in which the selection of materials or components is influenced by a range of factors

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Stock forms, types and sizes in order to calculate and determine the quantity of materials or components required

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Alternative processes that can be used to manufacture products to different scales of production

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Specialist techniques and processes that can be used to shape, fabricate, construct and assemble a high quality prototype

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Appropriate surface treatments and finishes that can be applied for functional and aesthetic purposes

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Unit 1: Design and Technology in the 21st Century – Core knowledge



The impact of new and emerging technologies

- [Knowledge organiser](#)
- [Knowledge organiser](#)



Designers

- [Knowledge organiser](#)



The ecological and social footprint of materials and components

- [Knowledge organiser](#)



How energy is generated and stored in order to choose and use appropriate sources to make products

- [Knowledge organiser](#)



Blended learning resources



Directing

[Blended learning lessons](#)



1984

[Blended learning lessons](#)



Two Faces

[Blended learning lessons](#)



The Shadow of the Sickle

[Blended learning lessons](#)



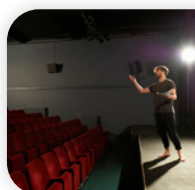
Design

[Blended learning lessons](#)



Romeo and Juliet

[Blended learning lessons](#)



Acting

[Blended learning lessons](#)



100

[Blended learning lessons](#)

Knowledge organisers



Acting

[Knowledge organiser](#)



Design – Part 1

[Knowledge organiser](#)



Design – Part 2

[Knowledge organiser](#)



Directing

[Knowledge organiser](#)

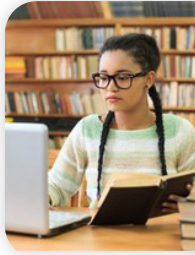


Performing

[Knowledge organiser](#)



Miscellaneous



Exam walk through



[Unit 1, 2 and 3](#)



Online exam review



[Online exam review](#)



Blended learning resources



Comparison

[Blended learning lessons](#)

[Knowledge organiser](#)



Implied meaning

[Blended learning lessons](#)

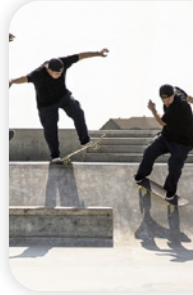
[Knowledge organiser](#)



Proofreading

[Blended learning lessons](#)

[Knowledge organiser](#)



Sequencing information

[Blended learning lessons](#)

[Knowledge organiser](#)



Synthesis

[Blended learning lessons](#)

[Knowledge organiser](#)



Editing

[Blended learning lessons](#)

[Knowledge organiser](#)



Planning

[Blended learning lessons](#)

[Knowledge organiser](#)



Structuring a response

[Blended learning lessons](#)

[Knowledge organiser](#)



Summarising information

[Blended learning lessons](#)

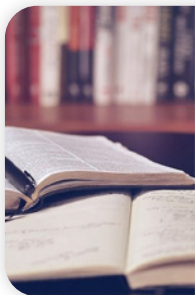
[Knowledge organiser](#)



Word meaning

[Blended learning lessons](#)

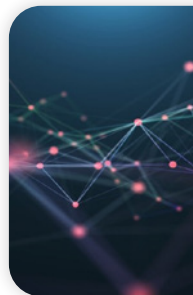
[Knowledge organiser](#)



Identifying and retrieving

[Blended learning lessons](#)

[Knowledge organiser](#)



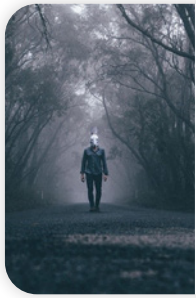
Analysing text

[Blended learning lessons](#)

[Knowledge organiser](#)



Blended learning resources



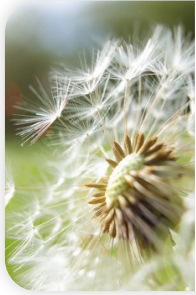
Reading skills

[Blended learning lessons](#)



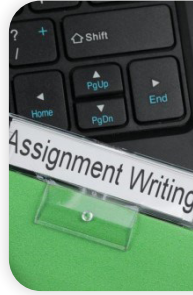
Technical accuracy

[Blended learning lessons](#)



Developing Detail

[Blended learning lessons](#)



Exam writing tasks

[Blended learning lessons](#)



Description

[Blended learning lessons](#)

[Knowledge organiser](#)



Exposition

[Blended learning lessons](#)

[Knowledge organiser](#)



Narration

[Blended learning lessons](#)

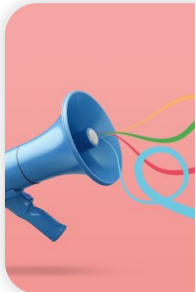
[Knowledge organiser](#)



Reviews

[Blended learning lessons](#)

[Knowledge organiser](#)



Talks

[Blended learning lessons](#)

[Knowledge organiser](#)



Letters

[Blended learning lessons](#)

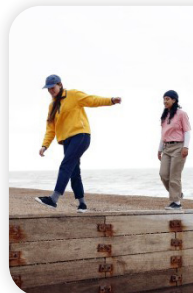
[Knowledge organiser](#)



Articles

[Blended learning lessons](#)

[Knowledge organiser](#)



Guides

[Blended learning lessons](#)

[Knowledge organiser](#)



Knowledge organisers



All Knowledge organisers

 [Knowledge organisers](#)



Looking at a writer's use of language

 [Knowledge organiser](#)



Persuasion

 [Knowledge organiser](#)



Argumentation

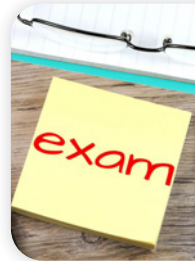
 [Knowledge organiser](#)

Miscellaneous




Exam walk through

 [Exam walk through](#)

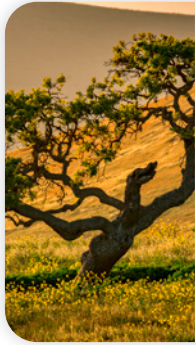


Online Exam Review (OER)

 [Online Exam Review](#)



Blended learning resources



Bridging Unit

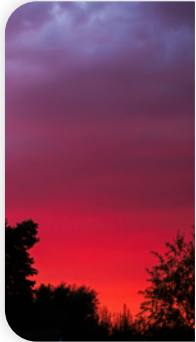
 [Blended learning lessons](#)



Of Mice and Men

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Unseen Poetry Unit 1B

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Blood Brothers

 [Blended learning lessons](#)



A Christmas Carol

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Heroes

 [Blended learning lessons](#)

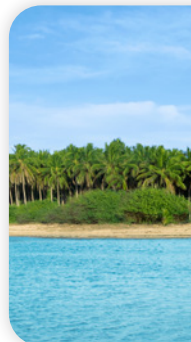
 [Knowledge organiser](#)



An Inspector Calls

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Lord of the Flies

 [Blended learning lessons](#)

 [Knowledge organiser](#)



A View from the Bridge

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Knowledge organisers



About a Boy

[Knowledge organiser](#)



A View from the Bridge

[Knowledge organiser](#)



Lord of the Flies

[Knowledge organiser](#)



Macbeth NEA

[Knowledge organiser](#)



To Kill a Mockingbird

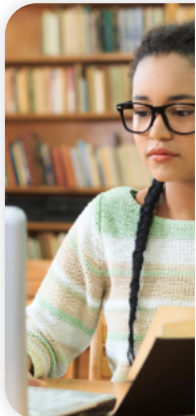
[Knowledge organiser](#)



Romeo and Juliet NEA

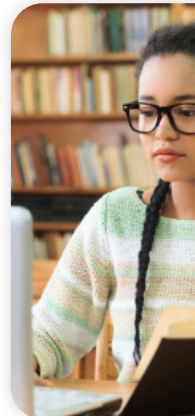
[Knowledge organiser](#)

Miscellaneous



Exam walk through

- [Foundation Unit 1](#)
- [Foundation Unit 2](#)



Exam walk through

- [Higher Unit 1](#)
- [Higher Unit 2a](#)
- [Higher Unit 2b](#)

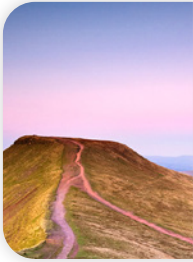


Online exam review

[Online exam review](#)



Blended learning resources



Key idea 1.1: Distinctive landscapes of Wales

 [Blended learning lessons](#)



Key Idea 1.2: Landform process

 [Blended learning lessons](#)



Key Idea 1.3: Drainage basins

 [Blended learning lessons](#)



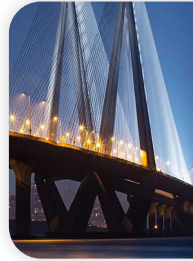
Key Idea 2.1: The urban-rural continuum in Wales

 [Blended learning lessons](#)



Key Idea 2.2: Population

 [Blended learning lessons](#)



Key Idea 2.3: Global Cities

 [Blended learning lessons](#)



Key Idea 3.1: Tectonic landforms

 [Blended learning lessons](#)



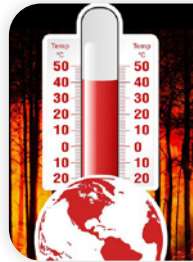
Key Idea 4.1: Vulnerable coastlines

 [Blended learning lessons](#)



Key idea 4.2: Managing coastal hazards

 [Blended learning lessons](#)



Key Idea 5.1: Causes of climate change

 [Blended learning lessons](#)



Key Idea 5.2: Weather patterns and processes

 [Blended learning lessons](#)



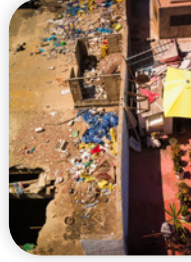
Key Idea 5.3: Processes and interactions within ecosystems

 [Blended learning lessons](#)



Key Idea 5.4: Human activity and ecosystems

 [Blended learning lessons](#)



Key Idea 6.1: Measuring global inequalities

 [Blended learning lessons](#)



Key Idea 6.2: Uneven development

 [Blended learning lessons](#)



Key Idea 6.3: Water resources and their management

 [Blended learning lessons](#)



Key Idea 6.4: Regional economic development

 [Blended learning lessons](#)



Key Idea 7.1: Social development

 [Blended learning lessons](#)



Key Idea 7.2: Contemporary issues

 [Blended learning lessons](#)



Key Idea 8.1: Consumerism and its impact on the environment

 [Blended learning lessons](#)

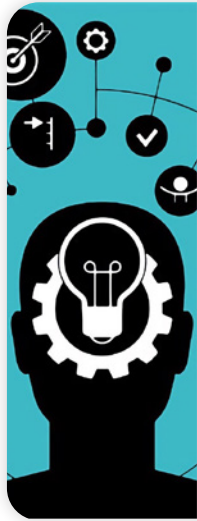


Key Idea 8.2: Management of ecosystems

 [Blended learning lessons](#)

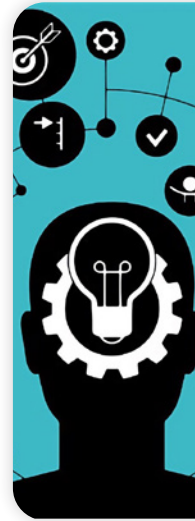


Knowledge organisers



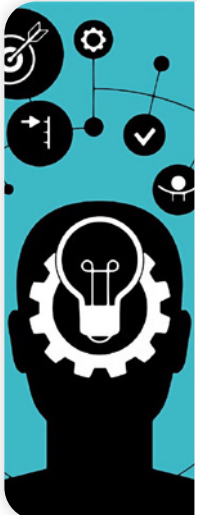
Key Idea 1.1: Distinctive landscapes in Wales

- ✓ [1.1.1 What makes landscapes distinctive in Wales?](#)
- ✓ [1.1.2 How are physical landscapes affected by human activity?](#)
- ✓ [1.1.3 How can landscapes be managed?](#)



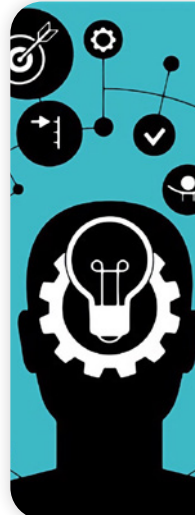
Key Idea 1.2: Landform process and change in two different distinctive landscapes of Wales or the wider UK

- ✓ [1.2.1a How do processes work together to create landform features at different scales in river landscapes](#)
- ✓ [1.2.1b How do processes work together to create landform features at different scales in coastal landscapes in Wales](#)
- ✓ [1.2.2 What factors affect the rates of landform change in river and coastal landscapes in the UK](#)



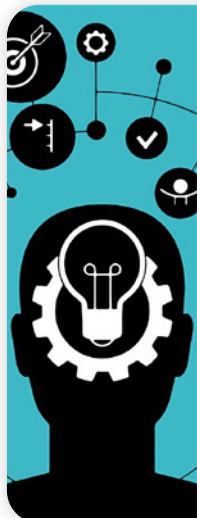
Key Idea 1.3: Drainage basins of Wales and the UK

- ✓ [1.3.1 What physical processes affect stores and flows in UK drainage basins?](#)
- ✓ [1.3.2 Why do rivers in the UK flood? \(Part A\)](#)
- ✓ [1.3.2 Why do rivers in the UK flood? \(Part B\)](#)
- ✓ [1.3.3 What are the current and future management approaches to the problem of flooding in the UK?](#)



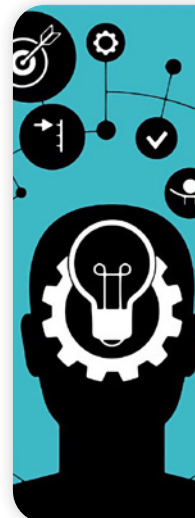
Key Idea 2.1: The urban-rural continuum in Wales

- ✓ [2.1.1 How are urban and rural areas in Wales linked? \(Part A\)](#)
- ✓ [2.1.1 How are urban and rural areas in Wales linked? \(Part B\)](#)
- ✓ [2.1.2 How are rural areas in Wales changing?](#)



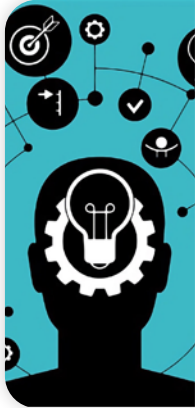
Key Idea 2.2: Population and urban change in the UK

- ✓ [2.2.1 What are the causes and consequences of population change in the UK?](#)
- ✓ [2.2.2 What are some of the contemporary challenges facing UK towns and cities?](#)
- ✓ [2.2.3 How and why is retailing changing in the UK?](#)



Key Idea 2.3: Urban issues in contrasting global cities

- ✓ [2.3.1 What are the global patterns of urbanisation?](#)
- ✓ [2.3.2 What are the consequences of urbanisation in two global cities?](#)
- ✓ [2.3.3 How are global cities connected?](#)



Key Idea 4.1: Vulnerable coastlines

- ✓ [4.1.1 Why are some coastal communities vulnerable to erosion and flooding?](#)



Key Idea 4.2: Managing coastal hazards

- ✓ [4.2.1 How are coastlines managed?](#)
- ✓ [4.2.2 What is the most sustainable way to manage coastlines in the face of rising sea levels?](#)



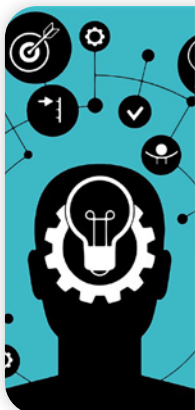
Key Idea 5.1: Climate change in the Quaternary period

- ✓ [5.1.1 and 5.1.2 What are the causes of, and evidence for climate change?](#)



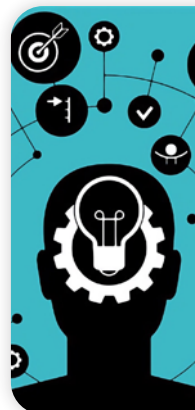
Key Idea 5.2: Weather patterns and process

- ✓ [5.2.1a Distribution, changing patterns, causes and consequences of low pressure weather hazards](#)
- ✓ [5.2.1b Distribution, changing patterns, causes and consequences of high pressure weather hazards](#)
- ✓ [5.2.2 What factors create variations in weather and climate at different scales within the UK?](#)



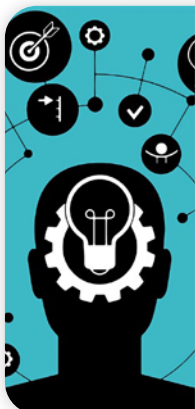
Key Idea 5.3: Processes and interactions within ecosystems

- ✓ [5.3.2 What are the key processes of ecosystems at different scales?](#)



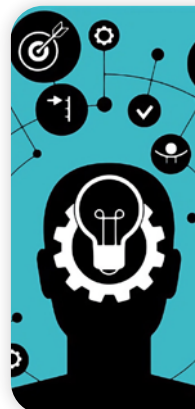
Key Idea 5.4: Human activity and ecosystem processes

- ✓ [5.4.1 How do people use ecosystems and environments?](#)
- ✓ [5.4.2 How do human activities modify processes and interaction within ecosystems?](#)
- ✓ [5.4.3 How can ecosystems be managed sustainably?](#)



Key Idea 6.1: Measuring global inequalities

- ✓ [6.1.1. How is economic development measured and what are the contemporary global patterns?](#)



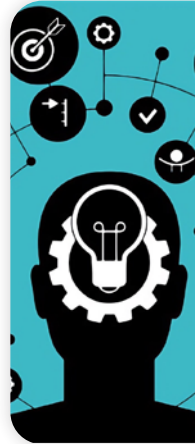
Key Idea 6.2: Causes and consequences of uneven development

- ✓ [6.2.1 What are the causes and consequences of uneven development at the global scale? – Part 1](#)
- ✓ [6.2.2. What are the responses to uneven development at the global scale?](#)



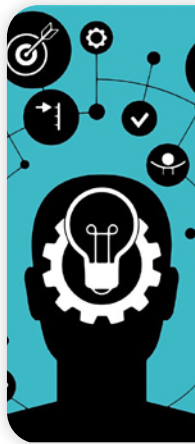
Key Idea 6.3: Water resources and their management

- 6.3.1 [How and why is the demand for water changing?](#)



Key Idea 6.4: Regional economic development

- 6.4.1 [What are the causes and consequences of regional patterns of economic development in one economically developing country?](#)
- 6.4.2 [What are the causes and consequences of regional patterns of economic development in the UK?](#)
- 6.4.3 [How can regional inequalities in the UK be reduced?](#)



Key Idea 8.1: Consumerism and its impact on the environment

- 8.1.1 [What are the impacts of increasing consumer choice on the global environment?](#)
- 8.1.2 [How may climate change affect people and the environment and how can technology be used, and people's lifestyles changed to reduce these impacts?](#)

Miscellaneous



Exam walk through



[Unit 1](#)



Exam walk through



[Unit 2](#)



The Elizabethan Age



Elizabethan Government

[Blended learning lessons](#)

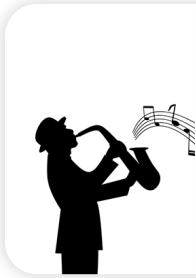
[Knowledge organiser](#)



Lifestyles of the rich and poor

[Blended learning lessons](#)

[Knowledge organiser](#)



Popular entertainment

[Blended learning lessons](#)

[Knowledge organiser](#)



The problem of religion

[Blended learning lessons](#)

[Knowledge organiser](#)



The Catholic threat

[Blended learning lessons](#)

[Knowledge organiser](#)



The Spanish Armada

[Blended learning lessons](#)

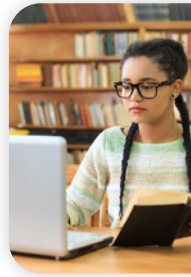
[Knowledge organiser](#)



The Puritan threat

[Blended learning lessons](#)

[Knowledge organiser](#)



Exam walk through

[Unit 1](#)



Online Exam Review (OER)

[Unit 1](#)



Radicalism and Protest



The impact of the French Revolution & Napoleonic Wars

[Knowledge organiser](#)



Early outbreaks of Protest

[Knowledge organiser](#)



Government reaction

[Knowledge organiser](#)



Industrial protest in Wales

[Knowledge organiser](#)



The growth of Chartism

[Knowledge organiser](#)



Rural Protest

[Knowledge organiser](#)



Impact of Industrial and Rural Protest

[Knowledge organiser](#)



Exam walk through

[Unit 1](#)



Online Exam Review (OER)

[Unit 1](#)



Depression, War and Recovery



The coming of the Depression

[Blended learning lessons](#)

[Knowledge organiser](#)



Life during the Depression

[Blended learning lessons](#)

[Knowledge organiser](#)



The Coming of War

[Blended learning lessons](#)

[Knowledge organiser](#)



Life during Wartime

[Blended learning lessons](#)

[Knowledge organiser](#)



Keeping up Morale

[Blended learning lessons](#)

[Knowledge organiser](#)



Exam walk through

[Unit 1](#)

Austerity, Affluence and Discontent



Britain in the early 1950s

[Blended learning lessons](#)

[Knowledge organiser](#)



The end of austerity

[Blended learning lessons](#)

[Knowledge organiser](#)



Political and Economic problems

[Blended learning lessons](#)

[Knowledge organiser](#)



The Changing lives of Women

[Blended learning lessons](#)

[Knowledge organiser](#)



Popular Entertainment

[Blended learning lessons](#)

[Knowledge organiser](#)



Changing attitudes to authority

[Blended learning lessons](#)

[Knowledge organiser](#)



Immigration

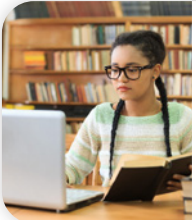
[Blended learning lessons](#)

[Knowledge organiser](#)



Immigration

[Blended learning lessons](#)



Exam walk through

[Unit 1](#)



Online Exam Review (OER)

[Unit 1](#)

Unit 2



The end of prosperity

[Blended learning lessons](#)

[Knowledge organiser](#)



The role of women

[Blended learning lessons](#)

[Knowledge organiser](#)



Popular entertainment

[Blended learning lessons](#)

[Knowledge organiser](#)



Economic boom

[Blended learning lessons](#)

[Knowledge organiser](#)



Crime and corruption

[Blended learning lessons](#)

[Knowledge organiser](#)



Religion and Race

[Blended learning lessons](#)

[Knowledge organiser](#)



Consolidation of power

[Blended learning lessons](#)

[Knowledge organiser](#)



Nazi economic, social and racial policy

[Blended learning lessons](#)

[Knowledge organiser](#)



End of the Weimar republic

- [Blended learning lessons](#)
- [Knowledge organiser](#)



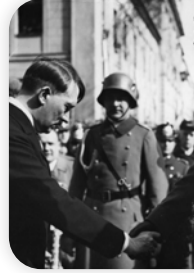
Recovery of Weimar

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Terror and persuasion

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Hitler's foreign policy

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Exam walk through

- [Unit 2](#)

Unit 3



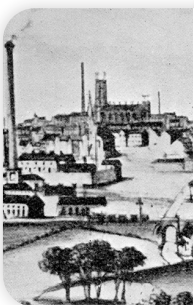
Attempts to treat and cure illness and disease

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Developments in patient care

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Causes of illness and disease

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Attempts to prevent illness and disease

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Attitudes to punishment

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Enforcing law and order

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Methods of combatting crime

[Blended learning lessons](#)

[Knowledge organiser](#)



The nature of crime

[Blended learning lessons](#)

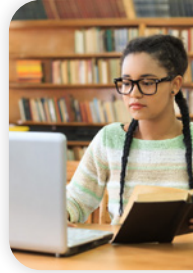
[Knowledge organiser](#)



Causes of Crime

[Blended learning lessons](#)

[Knowledge organiser](#)



Exam walk through

[Unit 3](#)

Knowledge organisers



Knowledge organisers

[Unit 1](#)



Knowledge organisers

[Unit 2](#)



Knowledge organisers

[Unit 3](#)

Miscellaneous



Exam walk through

[Unit 1, 2 and 3](#)



Online Exam Review (OER)

[Unit 1 \(Studies A\)](#)



Online Exam Review (OER)

[Unit 1 \(Studies B\)](#)



Online Exam Review (OER)

[Unit 1 \(Studies C\)](#)



E-sgol lessons

- [Session 1 – e-sgol lessons](#)
- [Session 2 – e-sgol lessons](#)
- [Session 3 – e-sgol lessons](#)
- [Session 4 – e-sgol lessons](#)



Carlam Cymru 2022 resources

- [Carlam Cymru 2022 resources](#)

Number

Understanding number and place value



Understanding number and place value

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)



Rounding

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)



Fractions, percentages and decimals

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



Comparing fractions, decimals, percentages and directed numbers

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)

Understanding number relationships and methods of calculation



Properties of numbers

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)



Powers, roots and rules of indices

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



HCF, LCM and product of prime factors

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Standard form

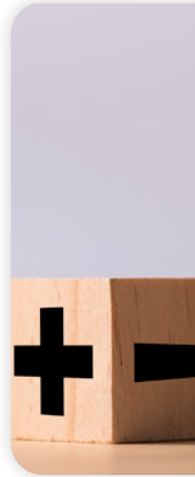
- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate and higher\)](#)

Understanding number relationships and methods of calculation



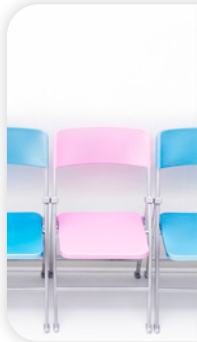
Calculations

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Four operations with decimals, fractions and negative numbers

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation, intermediate and higher\)](#)
- [Knowledge organiser \(foundation, intermediate, higher\)](#)
- [Knowledge organiser \(foundation, intermediate, higher\)](#)



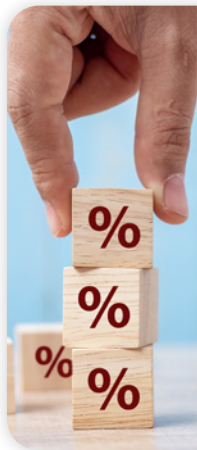
Ratio and proportion

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Multiplying and dividing whole numbers

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



Fraction and percentage of an amount

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Recurring decimals and surds

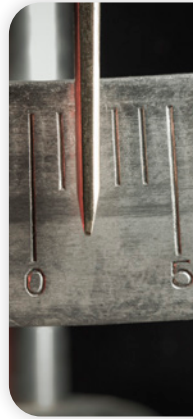
- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)
- [Knowledge organiser \(higher\)](#)

Solving numerical problems



Financial maths

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



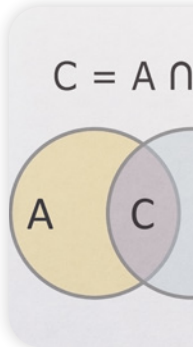
Upper and lower bounds

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Solving numerical problems

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



Venn diagrams

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation, intermediate and higher\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)

Algebra

Understanding and using functional relationships



Number patterns and sequences

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Coordinates and linear graphs

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Non-linear graphs

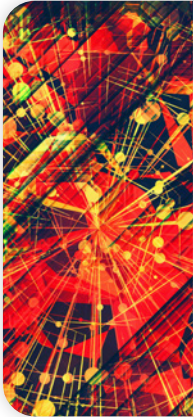
- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate and higher\)](#)
- [Knowledge organiser \(higher\)](#)



Special graphs

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)
- [Knowledge organiser \(higher\)](#)

Understanding and using equations and formulae



Algebraic fractions

- [Blended learning lessons](#)
- [Knowledge organiser \(higher\)](#)



Expanding and factorising

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



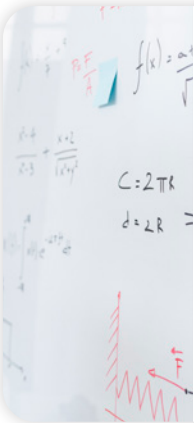
Linear equations and inequalities

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Non-linear equations

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Formulae and expressions

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)

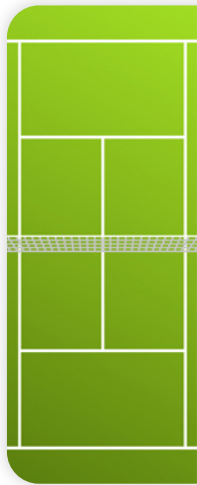


Changing the subject of a formula

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)

Geometry and Measure

Understanding and using properties of shape



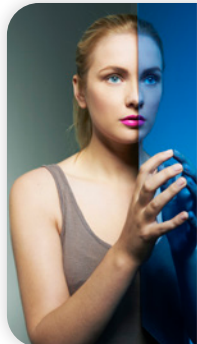
The vocabulary of geometry

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



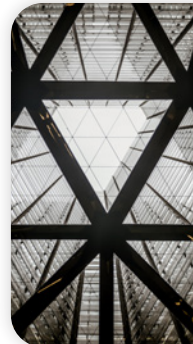
Constructions, loci, 2-D representations, and coordinates

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



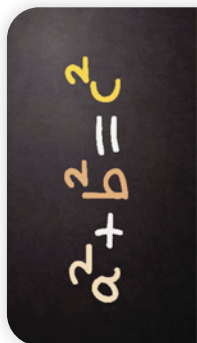
Symmetry and tessellations

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)



Angles

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)



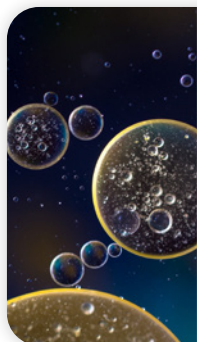
Pythagoras

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



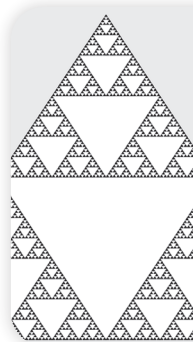
Trigonometry

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



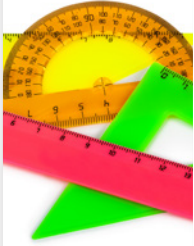
Circle theorems

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



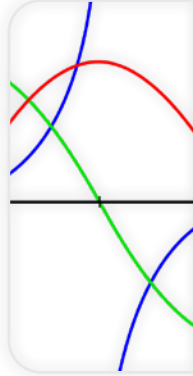
Similar shapes, congruency

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



The sine rule, the cosine rule and the area of a triangle

- [Blended learning lessons](#)
- [Knowledge organiser \(higher\)](#)
- [Knowledge organiser \(higher\)](#)



Trigonometric graphs

- [Blended learning lessons](#)
- [Knowledge organiser \(higher\)](#)

Understanding and using properties of position, movement and transformation



Transformations

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



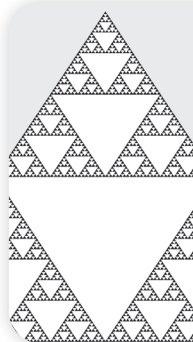
Constructions, loci, 2-D representations, and coordinates

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)



Symmetry and tessellations

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)



Similar shapes, congruency

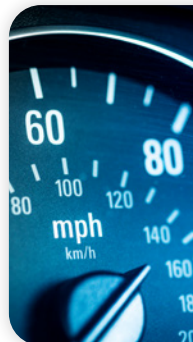
- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate\)](#)
- [Knowledge organiser \(higher\)](#)

Understanding and using measures



Units of measurement

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate\)](#)







Compound measures

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)

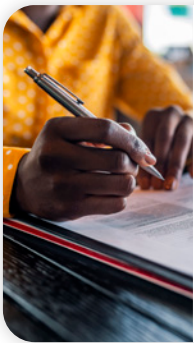


Area and perimeter, dimensions and volume



-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation\)](#)
-  [Knowledge organiser \(intermediate\)](#)
-  [Knowledge organiser \(higher\)](#)

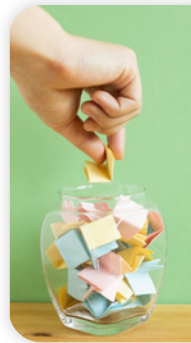
Statistics

Specifying the problem and planning






Questionnaires and surveys

-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation, intermediate and higher\)](#)





Sampling

-  [Blended learning lessons](#)
-  [Knowledge organiser \(intermediate\)](#)
-  [Knowledge organiser \(higher\)](#)

Processing, representing and interpreting data





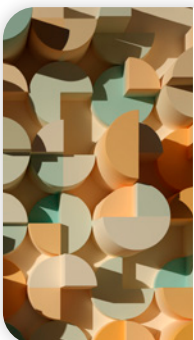
Sorting data

-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation\)](#)





Constructing and interpreting bar charts, vertical line diagrams, line graphs and pictograms

-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation\)](#)






Pie charts

-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation and intermediate\)](#)



Mean, median, mode and range

-  [Blended learning lessons](#)
-  [Knowledge organiser \(foundation\)](#)
-  [Knowledge organiser \(intermediate\)](#)



Grouped frequency distributions

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Scatter diagrams

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Cumulative frequency diagrams and box-and-whisker plots

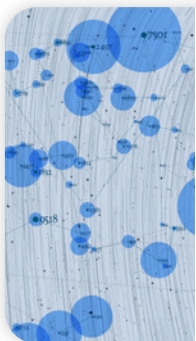
- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate and higher\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Histograms

- [Blended learning lessons](#)
- [Knowledge organiser \(higher\)](#)

Discussing results



Scatter diagrams

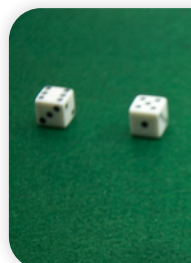
- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)

Estimating and calculating the probability of events



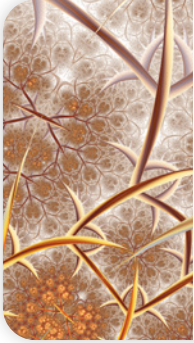
Probability

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



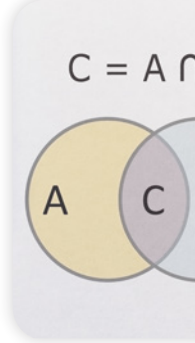
Sample space

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation and intermediate\)](#)



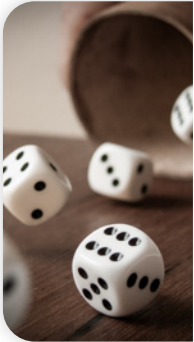
Tree diagrams

- [Blended learning lessons](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Venn diagrams

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation, intermediate and higher\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)



Relative frequency

- [Blended learning lessons](#)
- [Knowledge organiser \(foundation\)](#)
- [Knowledge organiser \(intermediate and higher\)](#)

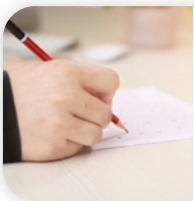


Higher probability

- [Blended learning lessons](#)
- [Knowledge organiser \(higher\)](#)

Bridging units

Bridging units



Foundation Tier

- [Blended learning lessons](#)



Intermediate Tier

- [Blended learning lessons](#)



Higher Tier

- [Blended learning lessons](#)

Miscellaneous

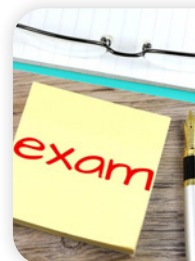
Exam walk through



Exam walk through: Mathematics and Mathematics Numeracy

- [Unit 1 and 2 \(Foundation, Intermediate and Higher\)](#)

Online exam review




Online Exam Review (student focused)

- [Online Exam Review](#)






GCSE Physics – Units 1 and 2

Unit 1






Electric circuits

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)







Generating electricity

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)






Making use of energy

-  [Blended learning lessons](#)
-  [Knowledge organiser \(density\)](#)
-  [Knowledge organiser \(heat transfer\)](#)






Domestic electricity

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





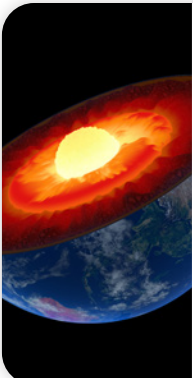
Features of waves

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





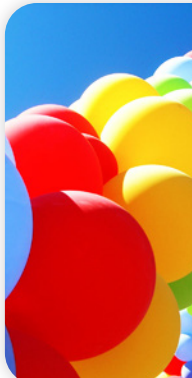
The total internal reflection of waves

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)






Seismic waves

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Kinetic Theory

-  [Blended learning lessons](#)
-  [Knowledge organiser \(gases\)](#)
-  [Knowledge organiser \(heat\)](#)



Electromagnetism

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Exam walk through

-  [Foundation tier](#)
-  [Higher tier](#)

Unit 2





Distance, speed, and acceleration

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Newton's laws

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





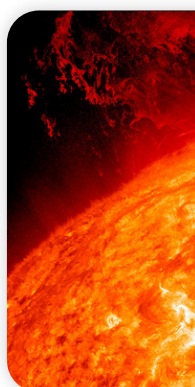
Work and energy

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)






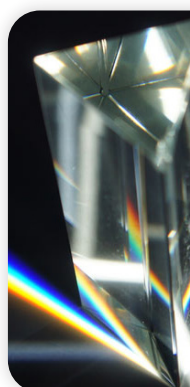
Further motion concepts

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





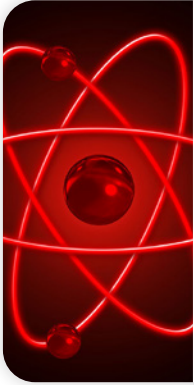
Stars and Planets

-  [Blended learning lessons](#)
-  [Knowledge organiser \(stars\)](#)
-  [Knowledge organiser \(the solar system\)](#)



The Universe

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



Types of radiation

 [Blended learning lessons](#)

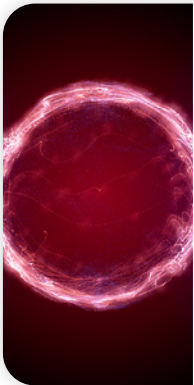
 [Knowledge organiser](#)



Half life

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Nuclear decay and nuclear energy

 [Blended learning lessons](#)

 [Knowledge organiser](#)

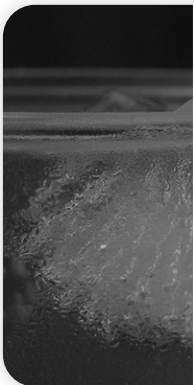


Exam walk through

 [Foundation tier](#)

 [Higher tier](#)

Bridging Unit



Bridging Unit

 [Blended learning lessons](#)



Miscellaneous



Exam walk through (Double Award)



[Unit 3 \(Foundation tier\)](#)



[Unit 3 \(Higher tier\)](#)



Exam walk through (Double Award)



[Unit 6 \(Foundation tier\)](#)



[Unit 6 \(Higher tier\)](#)



Online Exam Review (OER)



[Online Exam Review](#)



E-sgol lessons



[Session 1 - E-sgol lessons](#)



[Session 2 - E-sgol lessons](#)



[Session 3 - E-sgol lessons](#)



[Session 4 - E-sgol lessons](#)



ISLAM



Unit 1 Part A Islam: The five pillars of Sunni Islam



[Blended Learning lessons](#)



[Knowledge Organiser \(foundation\)](#)



Unit 1 Part A Islam: Obligatory Acts



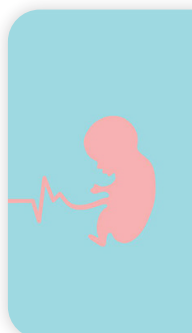
[Blended Learning lessons](#)



Islam: Beliefs about death and the afterlife



[Blended Learning lessons](#)



Islam: The origin and value of human life



[Blended Learning lessons](#)



Islam: The world



[Blended Learning lessons](#)



Unit 1 Part B Islam: Crime and punishment



[Blended Learning lessons](#)



Unit 1 Part B Islam: Forgiveness



[Blended Learning lessons](#)



Unit 1 Part B Islam: Good, evil and suffering



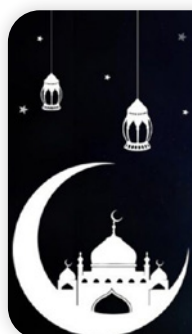
[Blended Learning lessons](#)



The nature of God



[Blended Learning lessons](#)



Unit 2 Part A Islam: Festivals and commemorations



[Blended Learning lessons](#)



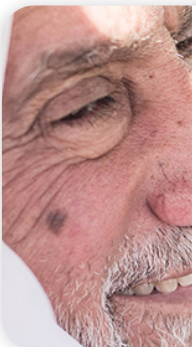
Unit 2 Islam Prophethood

 [Blended Learning lessons](#)



Unit 2 Part A Islam: Muslim identity

 [Blended Learning lessons](#)

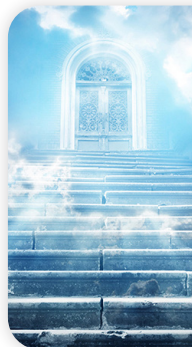


The Qur'an

 [Blended Learning lessons](#)

 [Knowledge Organiser](#)

 [Knowledge Organiser](#)



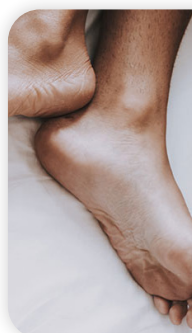
Unit 2 Islam: The afterlife

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Issues of wealth and poverty

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Islam sexual relationships

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Prejudice and discrimination

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Human rights and social justice

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Relationships

 [Blended Learning lessons](#)



Unit 2 Part B Islam: Issues of equality

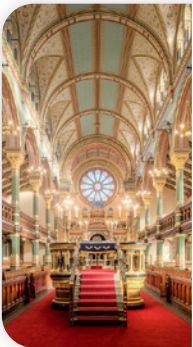
 [Blended Learning lessons](#)



Islam

[Knowledge Organisers](#)

JUDAISM



Unit 1 Part A Judaism: Worship in the home and synagogue

[Blended Learning lessons](#)

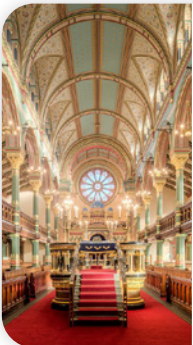
[Knowledge Organiser](#)



Unit 1 Part A Judaism: Worship in the home and synagogue

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Sacred place

[Blended Learning lessons](#)

[Knowledge Organiser](#)



The concept of God

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Judaism: Beliefs about death and the afterlife

[Blended Learning lessons](#)



Unit 1 Part B Judaism: Forgiveness

[Blended Learning lessons](#)



Unit 1 Part B Judaism: Crime and punishment

[Blended Learning lessons](#)



Unit 1 Part B Judaism: Good evil and suffering

[Blended Learning lessons](#)



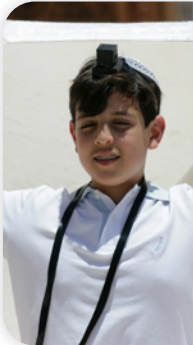
Judaism: The Origins and value of human life

 [Blended Learning lessons](#)



Judaism: The World

 [Blended Learning lessons](#)



Unit 2 Part A Judaism: Jewish identity

 [Blended Learning lessons](#)



Unit 2 Part A Judaism: The use of sacred texts

 [Blended Learning lessons](#)



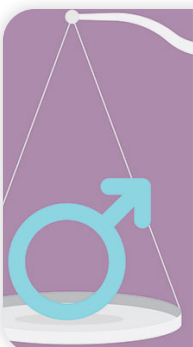
Unit 2 Judaism – The covenant

 [Blended Learning lessons](#)



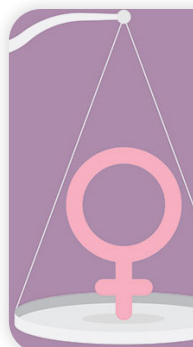
Unit 2 Judaism: Sacred texts

 [Blended Learning lessons](#)



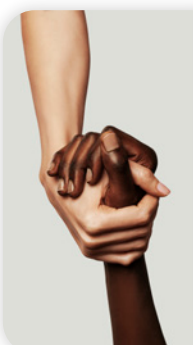
Unit 2 Part B Judaism: Issues of equality

 [Blended Learning lessons](#)



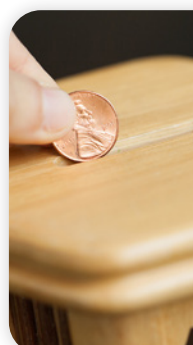
Unit 2 Part B: Judaism Human rights and social justice

 [Blended Learning lessons](#)



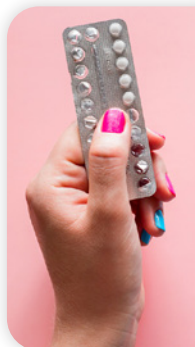
Unit 2 Part B: Judaism Human rights and social justice

 [Blended Learning lessons](#)



Unit 2 Part B Judaism: Issues of wealth and poverty

 [Blended Learning lessons](#)



Unit 2 Part B Judaism: Sexual relationships

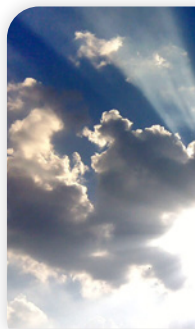
[Blended Learning lessons](#)



Unit 2 Part B Judaism: Relationships

[Blended Learning lessons](#)

CHRISTIANITY



Unit 1 Part A Christianity: God

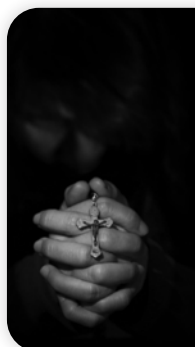
[Blended Learning lessons](#)



Unit 1 Part A Christianity: The church

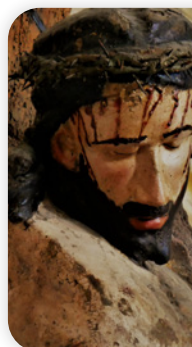
[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 1 Part A Christianity: Morality

[Blended Learning lessons](#)



Unit 1 Part A Christianity: Jesus as God incarnate

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 1 Part B Christianity: Good, evil and suffering

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 1 Part B Christianity: Forgiveness

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 1 Part B Christianity: beliefs about death and the afterlife

[Blended Learning lessons](#)



Unit 1 Part B Christianity: The world

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 1 Part B Christianity: Crime and punishment

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 2 Part B Christianity: Prejudice and discrimination

[Blended Learning lessons](#)



Unit 2 Part B Christianity: Issues of wealth and poverty

[Blended Learning lessons](#)



Unit 2 Part B Christianity: Christianity relationships

[Blended Learning lessons](#)



Unit 2 Part B Christianity: Sexual relationships

[Blended Learning lessons](#)



Unit 2 Part B Christianity: Issues of equality

[Blended Learning lessons](#)



Unit 2 Christianity: The afterlife

[Blended Learning lessons](#)

[Knowledge Organiser](#)

[Knowledge Organiser](#)



Unit 2 Christianity Special places

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 2 The sacraments and key acts of worship

[Blended Learning lessons](#)



Unit 2 Christianity: The Bible

[Blended Learning lessons](#)

[Knowledge Organiser](#)



Christianity: Human rights and social justice

[Blended Learning lessons](#)



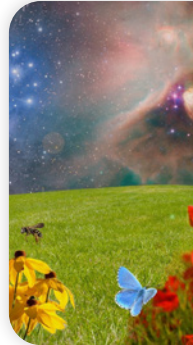
Issues of wealth and poverty

[Blended Learning lessons](#)



Christianity:

[Knowledge Organiser](#)



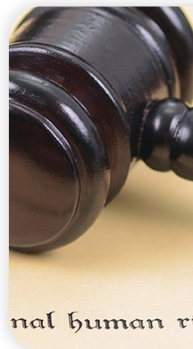
Unit 1 Part A Catholicism: Creation

[Blended Learning lessons](#)



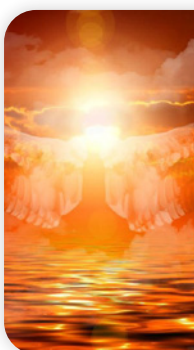
Prejudice and discrimination

[Blended Learning lessons](#)



Human rights and social justice

[Blended Learning lessons](#)



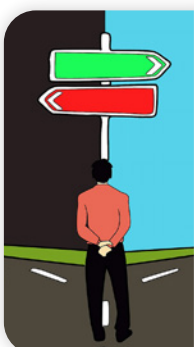
Unit 1 Part A Catholicism: God

[Blended Learning lessons](#)



Unit 1 Part A Catholicism: The Catholic church

[Blended Learning lessons](#)



Unit 1 Part A Catholicism: Morality

[Blended Learning lessons](#)

[Knowledge Organiser](#)



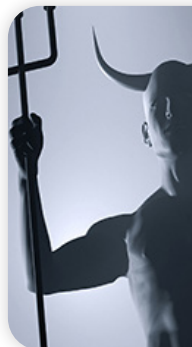
Unit 1 Part B Catholicism: Good, evil and suffering

[Blended Learning lessons](#)



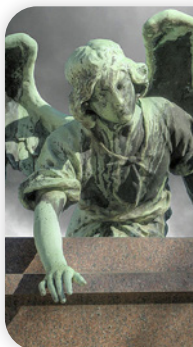
Unit 1 Part B Catholicism: Crime and punishment

 [Blended Learning lessons](#)



Unit 1 Part B Catholicism: Forgiveness

 [Blended Learning lessons](#)



Unit 1 Part B Catholicism: beliefs about death and the afterlife

 [Blended Learning lessons](#)



Unit 1 Part B Catholicism: The origin and sanctity of life

 [Blended Learning lessons](#)



Unit 1 Part B Catholicism: The world

 [Blended Learning lessons](#)



Unit 3 Part A Catholicism: Catholic forms

 [Blended Learning lessons](#)



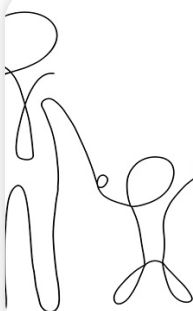
Unit 3 Part A Catholicism: Religious life

 [Blended Learning lessons](#)



Unit 3 Part B Catholicism: Relationships

 [Blended Learning lessons](#)



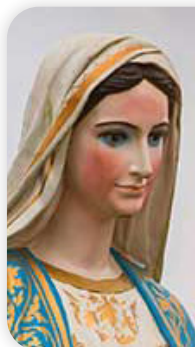
Unit 3 Part B Catholicism: Sexual relationships

 [Blended Learning lessons](#)



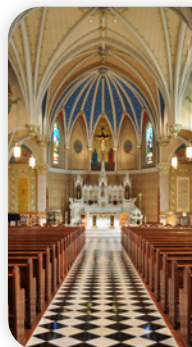
Unit 3 Part B Catholicism: Issues of equality: Prejudice and discrimination

 [Blended Learning lessons](#)



Unit 3 Catholicism The veneration of Mary

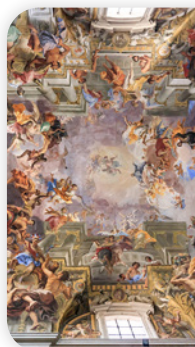
[Blended Learning lessons](#)



Unit 3 Catholicism: The nature of the church

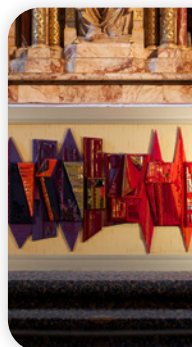
[Blended Learning lessons](#)

[Knowledge Organiser](#)



Unit 3 Catholicism: Special places

[Blended Learning lessons](#)



Unit 3 Catholicism: Practices

[Blended Learning lessons](#)



Unit 3 Catholicism: The afterlife

[Blended Learning lessons](#)



Unit 3 Catholicism: The Bible

[Blended Learning lessons](#)

Knowledge organisers



Unit 1 Part B

[Knowledge organisers](#)



Unit 3

[Knowledge organisers](#)



Judaism

[Knowledge organisers](#)



Miscellaneous



Exam walk through



[Unit 1](#)



Exam walk through



[Unit 2](#)



Exam walk through



[Unit 3 – Catholic Centres](#)



Online Exam Review



[Online Exam Review](#)

Units

Unit 1



Sgiliau siarad a gwrando

[Blended learning lessons](#)



Ymateb i glipliau fideo

[Blended learning lessons](#)

Unit 2



Yr amser presennol a'r trydydd person

[Blended learning lessons](#)



Ymateb i'r teitl a'r lluniau

[Blended learning lessons](#)



Sgiliau ymarferol

[Blended learning lessons](#)



Ymateb i osodiadau/ddarnau darllen byr

[Blended learning lessons](#)



Yr amser gorffennol

[Blended learning lessons](#)



Ymateb i graffiau a siartiau

[Blended learning lessons](#)

Unit 3



Ymgeisio am swyddi

[Blended learning lessons](#)



Cymraeg yn y gweithle

[Blended learning lessons](#)



Gweithio ar y penwythnos

[Blended learning lessons](#)



Dysgu Cymraeg

[Blended learning lessons](#)

Unit 4



Ieuenctid – ffasiwn a siopa

 [Blended learning lessons](#)



Cymru a'r Byd: Yr Ardal

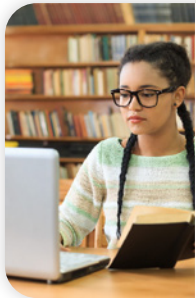
 [Blended learning lessons](#)



Cymru a'r byd: Gwyliau

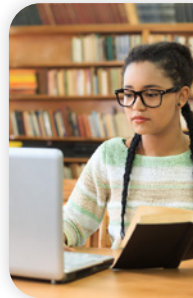
 [Blended learning lessons](#)

Miscellaneous



**Exam walk through:
GCSE Welsh 2nd Language**

 [Unit 3](#)




**Exam walk through:
GCSE Welsh 2nd Language**

 [Unit 4](#)



Online exam review (OER)

 [Online exam review](#)

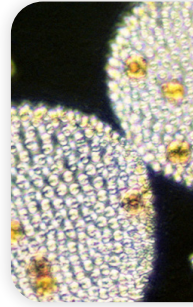


Unit 1



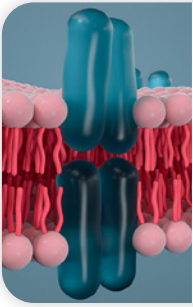
Chemical elements are joined together to form biological compounds

- [Blended learning lessons](#)
- [Knowledge organiser](#)



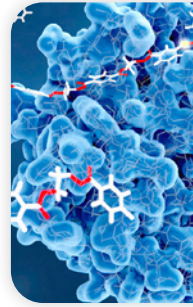
Cell structure and organisation

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Cell membranes and transport

- [Blended learning lessons](#)
- [Knowledge organiser](#)



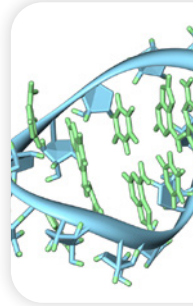
Biological reactions are regulated by enzymes

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Nucleic acids and their functions

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Genetic information is copied and passed on to daughter cells

- [Blended learning lessons](#)
- [Knowledge organiser](#)

Miscellaneous



Exam walk through

- [Unit 1](#)



Revision guide (2015 specification)

- [Unit 1 and 2](#)



E-sgol lessons

- [DNA replication e-sgol lesson](#)
- [Protein synthesis e-sgol lesson](#)
- [The cell cycle – interphase, mitosis and cytokinesis e-sgol lesson](#)
- [Meiosis and the cell cycle e-sgol lesson](#)



Unit 2



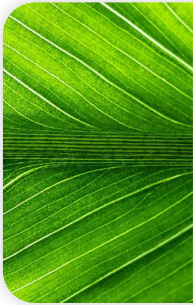
All organisms are related through their evolutionary history

- [Blended learning lessons](#)
- [Knowledge organiser](#)



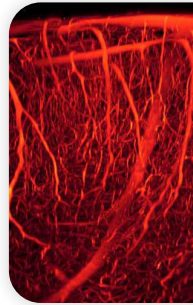
Adaptations for gas exchange in animals

- [Blended learning lessons](#)
- [Knowledge organiser](#)



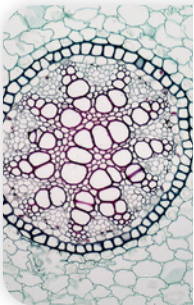
Gas exchange in plants

- [Blended learning lessons](#)
- [Knowledge organiser](#)



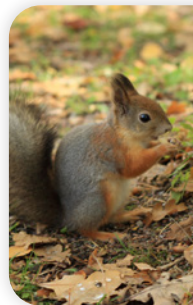
Adaptations for transport in animals

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Adaptations for transport in plants

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Adaptations for nutrition

- [Blended learning lessons](#)
- [Knowledge organiser](#)

Miscellaneous



Exam walk through

- [Unit 2](#)



Revision guide (2015 specification)

- [Unit 1 and 2](#)



Unit 3



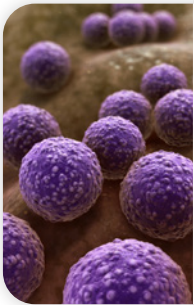
Photosynthesis uses light energy to synthesise organic molecules

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Knowledge organiser](#)



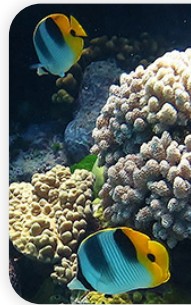
Respiration releases chemical energy in biological processes

- [Blended learning lessons](#)
- [Knowledge organiser \(aerobic\)](#)
- [Knowledge organiser \(anaerobic\)](#)



Microbiology

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Populations and ecosystems

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Human impact on the environment

- [Blended learning lessons](#)
- [Knowledge organiser \(extinction and conservation\)](#)
- [Knowledge organiser \(deforestation and overfishing\)](#)
- [Knowledge organiser \(planetary boundaries\)](#)



[Additional resources](#)



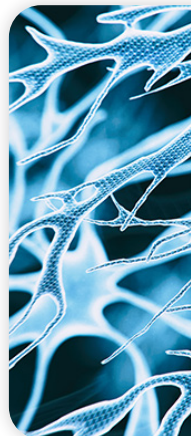
Homeostasis and the kidney

- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Knowledge organiser](#)



The importance of ATP

- [Knowledge organiser](#)



The nervous system

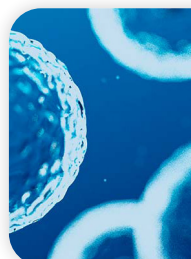
- [Blended learning lessons](#)
- [Knowledge organiser](#)
- [Knowledge organiser](#)

Miscellaneous



Exam walk through

- [Unit 3](#)

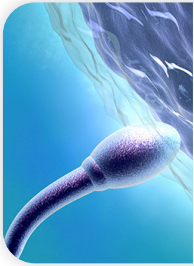


Revision guide (2015 specification)

- [Unit 3](#)



Unit 4



Sexual reproduction in humans

[Blended learning lessons](#)

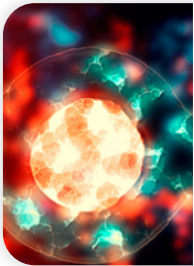
[Knowledge organiser](#)



Sexual reproduction in plants

[Blended learning lessons](#)

[Knowledge organiser](#)



Inheritance

[Blended learning lessons](#)

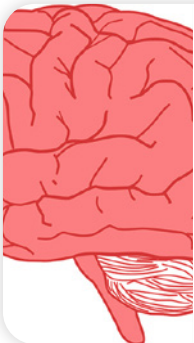
[Knowledge organiser](#)



Variation and evolution

[Blended learning lessons](#)

[Knowledge organiser](#)



Neurobiology and behaviour

[Blended learning lessons](#)

[Additional resources](#)



Immunology and disease

[Blended learning lessons](#)

[Knowledge organiser](#)

[Additional resources](#)



Application and reproduction of genetics

[Blended learning lessons](#)

[Knowledge organiser](#)

[Additional resources](#)



Human musculoskeletal anatomy

[Blended learning lessons](#)

[Knowledge organiser](#)

[Additional resources](#)



A level Biology knowledge organisers

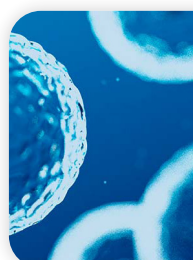
[Knowledge organisers](#)

Miscellaneous



Exam walk through

[Unit 4](#)

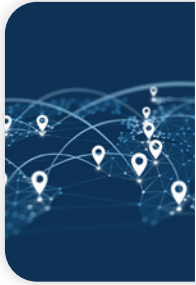


Revision guide (2015 specification)

[Unit 4](#)



Blended learning resources: Unit 1



Unit 1: Business Location

 [Blended learning lessons](#)



Unit 1: Business Structure

 [Blended learning lessons](#)



Unit 1: Business Finance

 [Blended learning lessons](#)



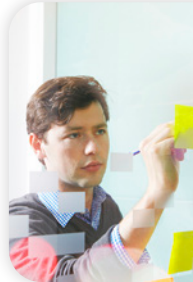
Unit 1: Markets

 [Blended learning lessons](#)



Unit 1: Enterprise

 [Blended learning lessons](#)



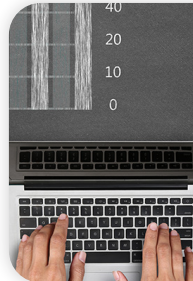
Unit 1: Business Revenue and Costs

 [Blended learning lessons](#)



Unit 1: Business Plans

 [Blended learning lessons](#)



Unit 1: Market Research

 [Blended learning lessons](#)



AS Business Unit 1 KOs

 [Knowledge organiser](#)



Blended learning resources: Unit 2



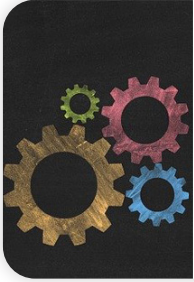
Unit 2: HR

 [Blended learning lessons](#)



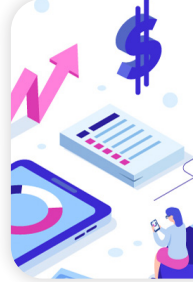
Unit 2: Operations Management

 [Blended learning lessons](#)



Unit 2: Marketing

 [Blended learning lessons](#)



Unit 2: Finance

 [Blended learning lessons](#)



AS Business Unit 2 KOs

 [Knowledge organiser](#)

Blended learning resources: Unit 3



Unit 3: Aims and Objectives

 [Blended learning lessons](#)



Unit 3: Market Analysis

 [Blended learning lessons](#)



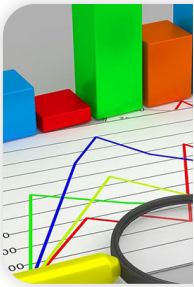
Unit 3: Decision-making Models

 [Blended learning lessons](#)



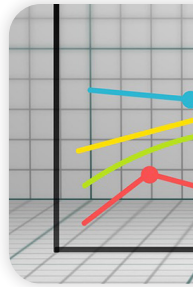
Unit 3: Special Orders

 [Blended learning lessons](#)



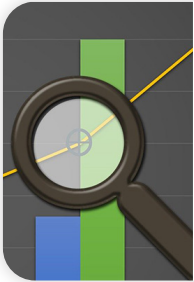
Unit 3: Strategy and Implementation

 [Blended learning lessons](#)



Unit 3: Data Analysis

 [Blended learning lessons](#)



Unit 3: Sales Forecasting

 [Blended learning lessons](#)



Unit 3: Analysing Financial and Non-Financial Performance

 [Blended learning lessons](#)



Unit 3: Investment Appraisal

 [Blended learning lessons](#)



A Level Business Unit 3 KOs

 [Knowledge organiser](#)

Blended learning resources: Unit 4



Unit 4: Managing Change

 [Blended learning lessons](#)



Unit 4: Risk Management

 [Blended learning lessons](#)



Unit 4: PEST Factors

 [Blended learning lessons](#)



Unit 4: Globalisation

 [Blended learning lessons](#)



Unit 4: International Trade

 [Blended learning lessons](#)



Unit 4: The European Union

 [Blended learning lessons](#)



Unit 4: Ethical, Legal and Environmental Factors

 [Blended learning lessons](#)



A Level Business Unit 4 KOs

 [Knowledge organiser](#)

Miscellaneous



Exam walk through

 [Units 1, 2, 3 and 4](#)

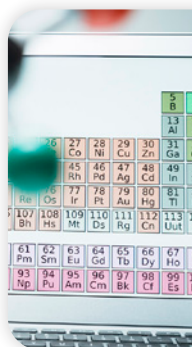


Unit 1



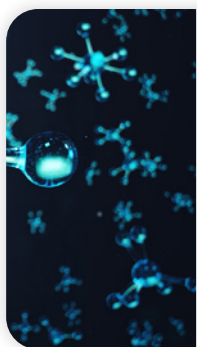
Formulae and equations

- [Blended learning lesson](#)
- [Knowledge organiser](#)



Basic ideas about atoms

- [Blended learning lessons](#)
- [Knowledge organiser \(i\)](#)
- [Knowledge Organiser \(ii\)](#)



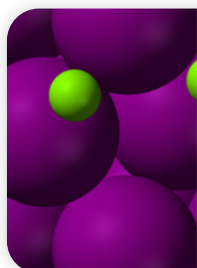
Chemical calculations

- [Blended learning lessons](#)
- [Knowledge organiser \(i\)](#)
- [Knowledge organiser \(ii\)](#)



Bonding

- [Blended learning lessons](#)
- [Knowledge organiser](#)



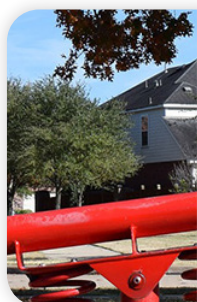
Solid structures

- [Blended learning lessons](#)
- [Knowledge organiser](#)



The Periodic Table

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Simple equilibria and acid-base reactions

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Exam walk through

- [Unit 1](#)



Revision Guide (2015 specification)

- [Units 1 & 2](#)



Unit 2



Thermochemistry

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Rates of reaction

 [Blended learning lessons](#)

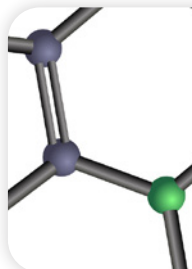
 [Knowledge organiser](#)



The wider impact of chemistry

 [Blended learning lesson](#)

 [Knowledge organiser](#)



Organic compounds

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Hydrocarbons

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Halogenoalkanes

 [Blended learning lessons](#)

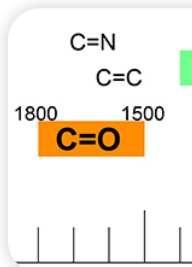
 [Knowledge organiser](#)



Alcohols and carboxylic acids

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Instrumental analysis

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Exam walk through

 [Unit 2](#)



Revision Guide (2015 specification)

 [Units 1 & 2](#)



Unit 3



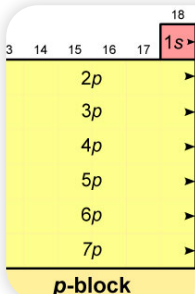
Redox and standard electrode potential

- [Blended learning lessons](#)
- [Knowledge organiser](#)



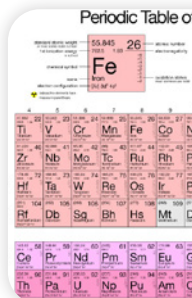
Redox reactions

- [Blended learning lessons](#)
- [Knowledge organiser](#)



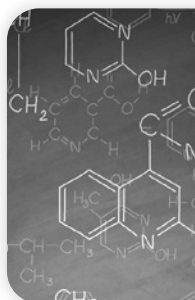
Chemistry of the p-block

- [Blended learning lessons](#)
- [Knowledge organiser](#)



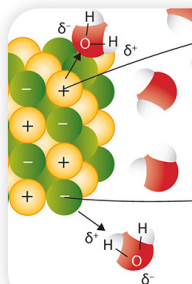
Chemistry of the d-block transition metals

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Chemical kinetics

- [Blended learning lessons](#)
- [Knowledge organiser](#)



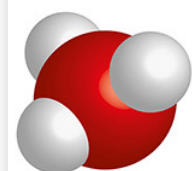
Enthalpy changes for solids and solutions

- [Blended learning lessons](#)
- [Knowledge organiser](#)



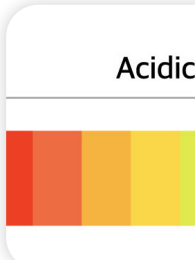
Entropy and feasibility of reactions

- [Blended learning lesson](#)
- [Knowledge organiser](#)



Equilibrium constants

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Acidic

Acid base equilibria

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Exam walk through

- [Unit 3](#)

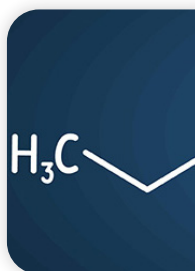


Revision Guide (2015 specification)

- [Unit 3](#)



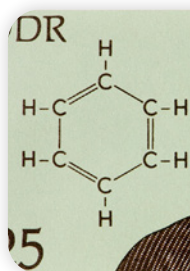
Unit 4



Stereoisomerism

[Blended learning lessons](#)

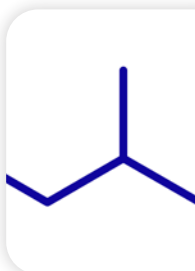
[Knowledge organiser](#)



Aromaticity

[Blended learning lessons](#)

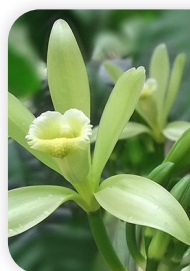
[Knowledge organiser](#)



Alcohols and phenols

[Blended learning lessons](#)

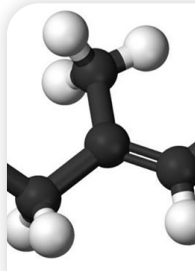
[Knowledge organiser](#)



Aldehydes and ketones

[Blended learning lessons](#)

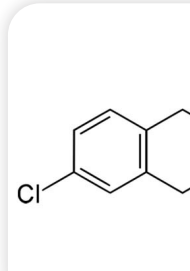
[Knowledge organiser](#)



Carboxylic acids and their derivatives

[Blended learning lessons](#)

[Knowledge organiser](#)



Amines

[Blended learning lessons](#)

[Knowledge organiser](#)



Amino acids, peptides and proteins

[Blended learning lessons](#)

[Knowledge organiser](#)



Organic synthesis and analysis

[Blended learning lessons](#)

[Knowledge organiser](#)



Exam walk through

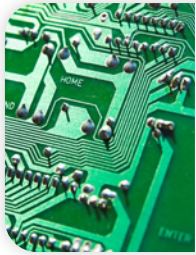
[Unit 4](#)



Revision Guide (2015 specification)

[Unit 4](#)

Unit 1 resources



Hardware and communication:
contemporary computer
architecture

Hwb® [Hwb playlist](#)



Hardware and communication:
contemporary input, output and
storage devices

Hwb® [Hwb playlist](#)



Hardware and communication:
networks

Hwb® [Hwb playlist](#)



Principles of programming

Hwb® [Hwb playlist](#)



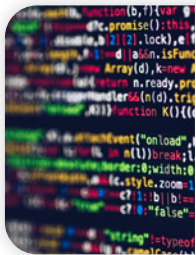
Systems analysis

Hwb® [Hwb playlist](#)



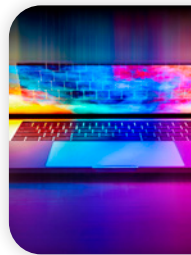
Software engineering

Hwb® [Hwb playlist](#)



Program construction:
Compilers, interpreters and
assemblers

Hwb® [Hwb playlist](#)



The need for different types
of software systems and their
attributes

Hwb® [Hwb playlist](#)



Practical programming:
designing programs, develop
programs, evaluate programs 1

Hwb® [Hwb playlist](#)



Practical programming:
designing programs, develop
programs, evaluate programs 2

Hwb® [Hwb playlist](#)



Data security and integrity
processes

Hwb® [Hwb playlist](#)



Economic, moral, legal, ethical
and cultural issues relating to
computer science

Hwb® [Hwb playlist](#)



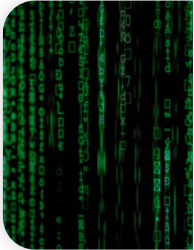
Logical operations

Hwb® [Hwb playlist](#)



Data transmission: communication networks

Hwb® [Hwb playlist](#)



Data representation and data types: storing numbers and characters in the binary system

Hwb® [Hwb playlist](#)



Data representation and data types: negative and positive integers in the binary system

Hwb® [Hwb playlist](#)



Data structures

Hwb® [Hwb playlist](#)



Organisation of data 1

Hwb® [Hwb playlist](#)



Organisation of data 2

Hwb® [Hwb playlist](#)



Database systems

Hwb® [Hwb playlist](#)



The operating system

Hwb® [Hwb playlist](#)



Algorithms and programs

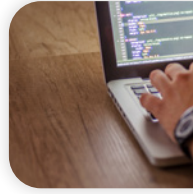
Hwb® [Hwb playlist](#)

Unit 3 resources



Data structures

Hwb® [Hwb playlist](#)



Logical operations

Hwb® [Hwb playlist](#)

Algorithms and programs:
recursion, testing and
complexity

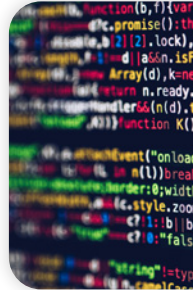
Hwb® [Hwb playlist](#)

Algorithms and programs
(sorting and searching)

Hwb® [Hwb playlist](#)

Algorithms and programs:
validation and verification,
logical operations, traverse and
compression

Hwb® [Hwb playlist](#)



Principles of programming

Hwb® [Hwb playlist](#)



Systems analysis

Hwb® [Hwb playlist](#)



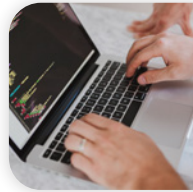
System design

Hwb® [Hwb playlist](#)



Software engineering

Hwb® [Hwb playlist](#)



Program construction

Hwb® [Hwb playlist](#)

Economic, moral, legal, ethical
and cultural issues

Hwb® [Hwb playlist](#)

Knowledge organisers



Knowledge organisers

 [Unit 1](#)



Knowledge organisers

 [Unit 2](#)



Knowledge organisers

 [Unit 3](#)



Knowledge organisers

 [Unit 4](#)

Miscellaneous



Exam walk through

 [Units 1, 2, 3, and 4](#)



Online Exam Review (OER)

 [Online Exam Review](#)

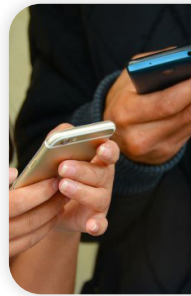


Blended learning resources



How language is used to convey meaning

 [Blended learning lessons](#) (Unit 1)



Analysis features of contemporary English to create meaning

 [Blended learning lessons](#) (Unit 1)




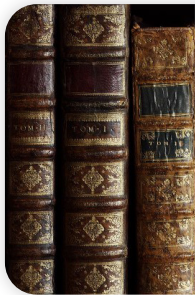
Language of power: crafting an essay using wider examples

 [Blended learning lessons](#) (Unit 2)



Language and situation: crafting an essay using wider examples

 [Blended learning lessons](#) (Unit 2)



How contextual factors shape meaning in texts written at different times

 [Blended learning lessons](#) (Unit 3)



Analysis of spoken language features to create meaning

 [Blended learning lessons](#) (Unit 4)



Using stimulus material to develop creative writing

 [Blended learning lessons](#) (Unit 4)



Knowledge organisers



Open class words

[Knowledge organiser](#)



Phrases

[Knowledge organiser](#)



Spoken language

[Knowledge organiser](#)



Clause analysis 1

[Knowledge organiser](#)



Phrases 2

[Knowledge organiser](#)



Standard English and Non-Standard English

[Knowledge organiser](#)



Word order

[Knowledge organiser](#)



Language and Gender

[Knowledge organiser](#)



Power and language

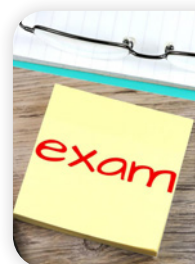
[Knowledge organiser](#)

Miscellaneous



Exam walk through

- [Unit 1 \(AS level\)](#)
- [Unit 2 \(AS level\)](#)
- [Unit 3 \(A2 level\)](#)
- [Unit 4](#)



Online Exam Review (OER)

[Online Exam Review](#)



Blended learning resources



Unit 1, Section A: A close analysis of prose fiction

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 1, Section B: Understanding dramatic techniques

[Blended learning lessons](#)



Unit 2, Section B and Unit 3, Section B: Analytical and comparative approaches to poetry

[Blended learning lessons](#)

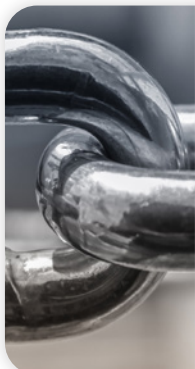
[Literature booklets](#)



Unit 4: Shakespeare's language

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 5: Comparing prose text

[Blended learning lessons](#)

[Knowledge organiser](#)

Knowledge organisers



Unit 1

[Knowledge organiser](#)




Unit 2

[Literature booklets](#)



Unit 3

 [Knowledge organiser](#)



Unit 4

 [Knowledge organiser](#)




Unit 5

 [Knowledge organiser](#)

Miscellaneous



Exam walk throughs

 [Unit 1, 2, 3 and 4](#)



Online exam review

 [Online exam Review](#)

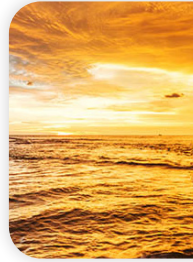


Blended learning resources



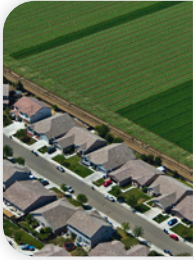
Unit 1 Glaciated Landscapes

[Blended learning lessons](#)



Unit 1 Coastal Landscapes

[Blended learning lessons](#)



Unit 2 Changing places

[Blended learning lessons](#)



Unit 2 Fieldwork Investigation in Physical and Human Geography

[Blended learning lessons](#)



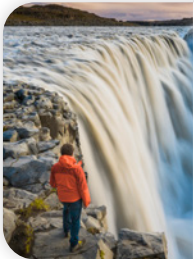
Unit 3 21st century challenges

[Blended learning lessons](#)



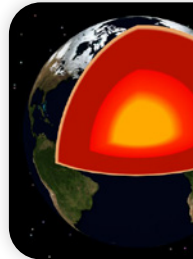
Unit 3 Global Governance

[Blended learning lessons](#)



Unit 3 Water and Carbon Cycles

[Blended learning lessons](#)



Unit 4 Tectonic hazards and processes

[Blended learning lessons](#)



Unit 4 Weather and climate

[Blended learning lessons](#)



Unit 4 China

[Blended learning lessons](#)

Knowledge organisers



Concept 1: Causality

[Knowledge organiser](#)



Concept 2: Equilibrium

[Knowledge organiser](#)



Knowledge organisers



Concept 3: Feedback

 [Knowledge organiser](#)



Concept 4: Globalisation

 [Knowledge organiser](#)



Concept 5: Identity

 [Knowledge organiser](#)



Concept 6: Inequality

 [Knowledge organiser](#)



Concept 7: Interdependence

 [Knowledge organiser](#)



Concept 8: Mitigation and Adaption

 [Knowledge organiser](#)



Concept 9: Representation

 [Knowledge organiser](#)



Concept 10: Resilience

 [Knowledge organiser](#)



Concept 11: Risk

 [Knowledge organiser](#)



Concept 12: Sustainability

 [Knowledge organiser](#)



Concept 13: Systems

 [Knowledge organiser](#)

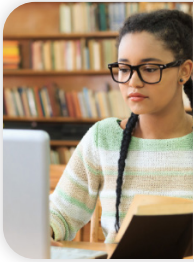


Concept 14: Thresholds

 [Knowledge organiser](#)



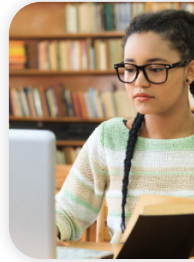
Miscellaneous



Exam walk through



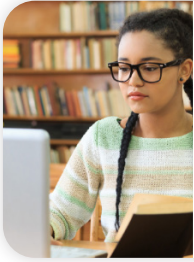
[Unit 1](#)



Exam walk through



[Unit 2](#)



Exam walk through



[Unit 3](#)



Exam walk through



[Unit 4](#)

Blended learning resources



Unit 3.1.1: Welsh society, culture and the economy c.1240–1415

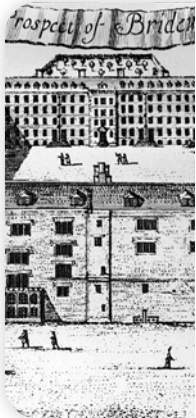
[Blended learning lessons](#)



Unit 3.1.2: Governance of Wales c.1240–1415

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.2.1: The extent and pace of change in the treatment of poverty and vagrancy in Wales and England c.1485–1603

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.2.2: The changing focus of and extent of the threat posed by protest and rebellion in Wales and England c.1485–1603

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.3.1: Religious change and its impact on Europe c.1500–1600

[Blended learning lessons](#)



Unit 3.3.2: Exploration and discovery c.1500–1600

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.4.1: Political change and governance

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.4.2: Politics and government in France c.1715–1815

[Blended learning lessons](#)



Blended learning resources



Unit 3.4.2: Changing attitudes and ideas in Wales and England, c.1603–1715

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.5.1: French society and economy c.1715–1815

[Blended Learning lessons](#)

[Knowledge organiser](#)



Unit 3.6.1: Parliamentary reform in Wales and England c.1780–1885

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.6.2: Protest in Wales and England c.1780–1885

[Blended learning lessons](#)



Unit 3.7.1: Poverty and unemployment in Wales and England c.1890–1990

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.7.2: Changes in society in Wales and England c.1890–1990

[Blended learning lessons](#)



Unit 3.8.1: The impact and pace of the struggle for civil rights in the US c. 1890–1990

[Blended learning lesson](#)



Unit 3.8.2: The extent and pace of change in US foreign policy c.1890–1990

[Blended learning lesson](#)

[Knowledge organiser](#)



Unit 3.9.1: Changing leaderships and regimes in Germany, c.1871–1989

[Blended learning lessons](#)



Unit 3.9.2: The extent and pace of change in the lives of German people c.1871–1989

[Blended learning lessons](#)



Blended learning resources



Unit 3.10.1: Leadership and regimes in Russia c.1881–1989

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 3.10.2: Lives of the Russian people c.1881–1989

[Blended learning lessons](#)

Knowledge organisers



Unit 3

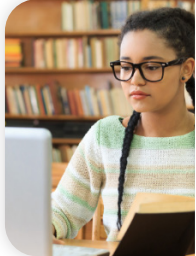
[Knowledge organisers](#)



Unit 4

[Knowledge organiser](#)

Miscellaneous



Exam walk through

[Unit 1, 2, 3 and 4](#)



AS Unit 1: Pure Mathematics A

2.1.1 Proof



Hwb® [Proof playlist](#)

2.1.2 Algebra and functions



Hwb® [Completing the square playlist](#)



Hwb® [Factor Theorem playlist](#)



Hwb® [Indices playlist](#)



Hwb® [Inequalities playlist](#)



Hwb® [Discriminant of a quadratic function playlist](#)



Hwb® [Simultaneous equations playlist](#)



Hwb® [Surd playlist](#)



Hwb® [Transformations of graphs playlist](#)

2.1.3 Coordinate geometry in the (x, y) plane



Hwb® [Straight line geometry playlist](#)



Hwb® [Circle geometry playlist](#)

2.1.4 Sequences and series – The Binomial Theorem



Hwb® [The binomial theorem playlist](#)



2.1.5 Trigonometry

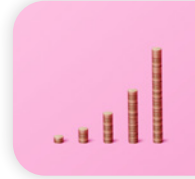


Hwb® [Trigonometry playlist](#)

2.1.6 Exponentials and logarithms



Hwb® [Exponential modelling playlist 1](#)



Hwb® [Exponential modelling playlist 2](#)

2.1.7 Differentiation



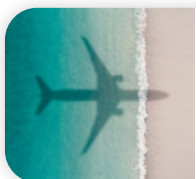
Hwb® [Differentiation playlist](#)

2.1.8 Integration



Hwb® [Integration playlist](#)

2.1.9 Vectors



Hwb® [Vectors playlist](#)

AS Unit 2: Applied Mathematics A - Statistics

2.2.1 Statistical sampling



Hwb® [Statistical sampling playlist](#)

2.2.2 Data presentation and interpretation



Hwb® [Data presentation and interpretation playlist 1](#)



Hwb® [Data presentation and interpretation playlist 2](#)

2.2.3 Probability



Hwb® [Probability playlist](#)

2.2.4 Statistical distributions



Hwb® [The binomial distribution playlist](#)



Hwb® [The Poisson distribution and the discrete uniform distribution playlist](#)

2.2.5 Statistical hypothesis testing



Hwb® [Statistical hypothesis testing playlist](#)

AS Unit 2: Applied Mathematics A - Mechanics

2.2.6 Quantities and units in mechanics



Hwb® [Quantities and units in mechanics playlist](#)

2.2.7 Kinematics



Hwb® [Equations of motion playlist](#)



Hwb® [Velocity-time graphs playlist](#)



Hwb® [Displacement-time graphs playlist](#)



Hwb® [Using calculus in kinematics playlist](#)

2.2.8 Forces and Newton's laws



Hwb® [Forces and Newton's laws playlist](#)



Hwb® [Forces in lifts playlist](#)



Hwb® [Forces in connected objects playlist](#)

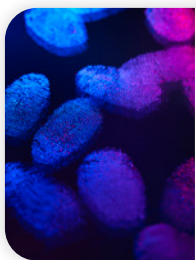
2.2.9 Vectors



Hwb® [Vectors playlist](#)

A2 Unit 3: Pure Mathematics B

2.3.1 Proof



Hwb® [Proof by contradiction playlist](#)

[Knowledge organiser](#)

2.3.2 Algebra and functions



Hwb® [Algebra and functions playlist](#)

[Knowledge organiser A](#)

[Knowledge organiser B](#)



Hwb® [Inverse functions playlist](#)



Hwb® [Partial fractions playlist](#)



Hwb® [The modulus function playlist](#)



Hwb® [Transformations playlist](#)

2.3.3 Coordinate geometry in the (x, y) plane



Hwb® [Coordinate geometry in the \$\(x, y\)\$ plane playlist](#)

[Knowledge organiser](#)

2.3.4 Sequences and series



Hwb® [Arithmetic sequences and series playlist](#)



Hwb® [The binomial expansion playlist](#)

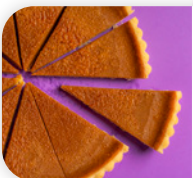


Hwb® [Geometric sequences and series playlist](#)



[Sequences and series knowledge organiser](#)

2.3.5 Trigonometry



Hwb® [Radians, arcs, sectors and segments playlist](#)



Hwb® [Small angle approximations playlist](#)



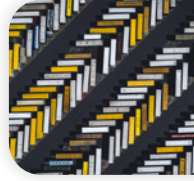
Hwb® [Using exact values of sin, cos and tan playlist](#)



Hwb® [Reciprocal and inverse trigonometric functions playlist](#)



Hwb® [Identities involving cosec, sec and cot playlist](#)



Hwb® [Compound angle and double angle formulae playlist](#)



Hwb® [Proofs using trigonometric functions and identities playlist](#)



Hwb® [The harmonic form playlist](#)



[Trigonometry knowledge organiser](#)

2.3.6 Differentiation



Hwb® [Chain, product and quotient rules playlist](#)



Hwb® [Concavity and points of inflection playlist](#)



Hwb® [Implicit differentiation playlist](#)

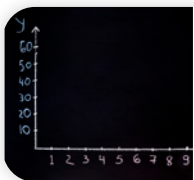


Hwb® [Parametric differentiation playlist](#)



[Differentiation knowledge organiser](#)

2.3.7 Integration



Hwb® [Integration of key functions playlist](#)



Hwb® [Finding the area between two curves playlist](#)



Hwb® [Integration as the limit of a sum playlist](#)



Hwb® [Integration by substitution playlist](#)



Hwb® [Integration by parts playlist](#)



Hwb® [Integration using partial fractions playlist](#)




Hwb® [Evaluation of first order differential equations using integration playlist](#)



 [Integration knowledge organiser](#)

2.3.8 Numerical methods



 [Numerical methods knowledge organiser](#)

A2 Unit 4: Applied Mathematics B - Statistics

2.4.1 Probability



Hwb® [Conditional probability playlist](#)

2.4.2 Statistical distributions





Hwb® [The normal distribution playlist](#)



Hwb® [The continuous uniform distribution playlist](#)



-  [Statistical distributions knowledge organiser 1](#)
-  [Statistical distributions knowledge organiser 2](#)



2.4.3 Statistical hypothesis testing




Hwb® [Statistical hypothesis testing: the normal distribution playlist](#)



Hwb® [Statistical hypothesis testing: correlation coefficients playlist](#)



 [Hypothesis testing knowledge organiser](#)

A2 Unit 4: Applied Mathematics B - Differential equations and mechanics

2.4.4 Trigonometry




Hwb® [Trigonometry playlist](#)

2.4.5 Differentiation



Hwb® [Constructing simple differential equations in context playlist](#)



 [Differentiation knowledge organiser](#)

2.4.6 Integration



Hwb® [Finding and interpreting solutions in context playlist](#)



 [Integration knowledge organiser](#)

2.4.8 Kinematics

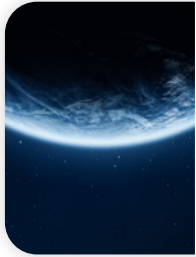


Hwb® [Kinematics playlist](#)

 [Knowledge organiser](#)



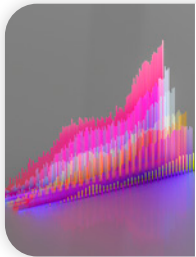
2.4.9 Forces and Newton's laws



Hwb [Forces and Newton's laws playlist](#)

[Knowledge organiser](#)

2.4.9 Moments



Hwb [Moments playlist](#)

[Knowledge organiser](#)

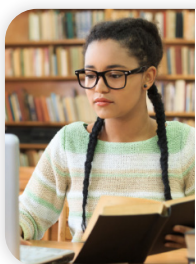
2.4.10 Vectors



Hwb [Vectors playlist](#)

Exam Practice

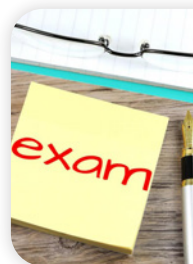
Exam walk through



Exam walk through: AS/A Level Mathematics

[Unit 1, 2, 3 and 4](#)

Online exam review (OER)



Online Exam Review

[Online Exam Review](#)





Units 1-4

Unit 1





Basic physics

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Kinematics

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Dynamics

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Energy concepts

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





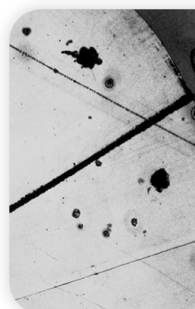
Solids under stress

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Using radiation to investigate stars

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



Particles and nuclear structure

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)

Exam Practice

Exam Walk Through



Exam walk through

-  [Unit 1](#)

Revision Guide



Revision Guide (2015 specification)

-  [Units 1 & 2](#)



Units 1-4

Unit 2



Conduction of electricity

- [Blended learning lessons](#)
- [Knowledge organiser](#)



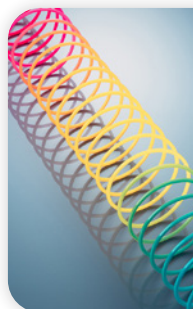
Resistance

- [Blended learning lessons](#)
- [Knowledge organiser](#)



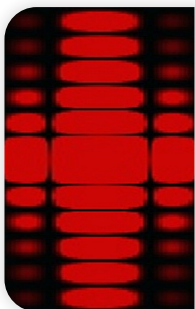
D.C. circuits

- [Blended learning lessons](#)
- [Knowledge organiser](#)



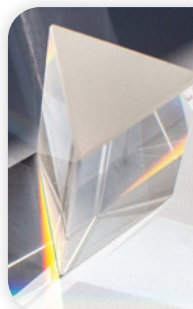
The nature of waves

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Wave properties

- [Blended learning lessons](#)
- [Knowledge organiser](#)



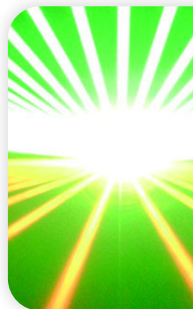
Refraction of light

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Photons

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Lasers

- [Blended learning lessons](#)
- [Knowledge organiser](#)

Exam Practice

Exam Walk Through



Exam walk through

- [Unit 2](#)

Revision Guide



Revision Guide (2015 specification)

- [Units 1 & 2](#)



Units 1-4

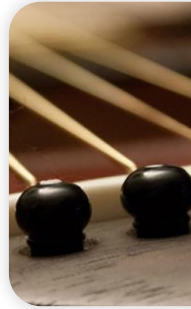
Unit 3



Circular motion

 [Blended learning lessons](#)

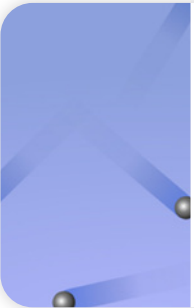
 [Knowledge organiser](#)



Vibrations

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Kinetic theory

 [Blended learning lessons](#)

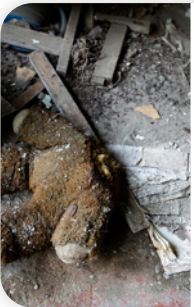
 [Knowledge organiser](#)



Thermal physics

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Nuclear decay

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Nuclear energy

 [Blended learning lessons](#)

 [Knowledge organiser](#)

Exam Practice

Exam Walk Through



Exam walk through

 [Unit 3](#)

Revision Guide



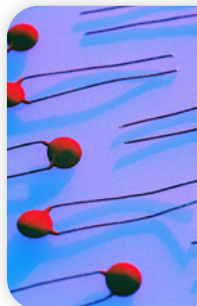
Revision Guide (2015 specification)

 [Unit 3](#)



Units 1-4

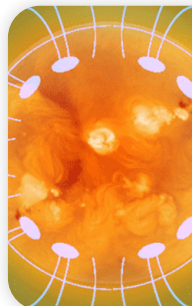
Unit 4



Capacitance

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Electrostatic and gravitational fields of force

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Orbits and the wider universe

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Magnetic fields

 [Blended learning lessons](#)

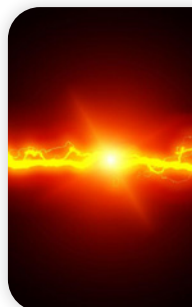
 [Knowledge organiser](#)



Electromagnetic induction

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Alternating currents

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Medical physics

 [Blended learning lessons](#)

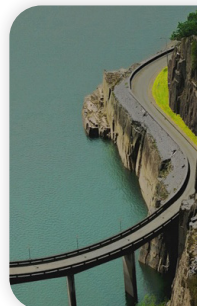
 [Knowledge organiser](#)



The physics of sports

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Energy and the environment

 [Blended learning lessons](#)

 [Knowledge organiser](#)



Exam Practice

Exam Walk Through



Exam walk through



[Unit 4](#)

Revision Guide



Revision Guide (2015 specification)



[Unit 4](#)



E-sgol lessons



[Session 1 - E-sgol lessons](#)



[Session 2 - E-sgol lessons](#)



[Session 3 - E-sgol lessons](#)





[Session 4 - E-sgol lessons](#)



Blended learning resources





Unit 3 Theme 1a: Role and significance of the texts of Mul Mantra and the Japji of Guru Nanak

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Unit 3 Theme 1b: Guru Arjan - a period of Sikh growth

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Unit 3 Theme 1c: Maharaja Ranjit Singh and the founding of the Sikh empire

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Unit 3 Theme 2a: The aspiration for Khalistan

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





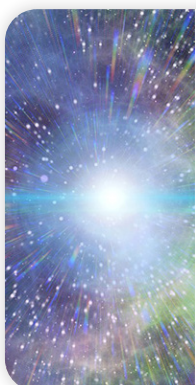
Unit 3 Theme 2b: Changing role of men and women in Sikhism

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





Unit 3 Theme 2c: Difference between diversity and pluralism

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)





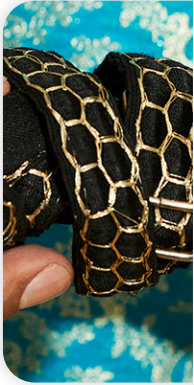
Unit 3 Theme 3a: The challenges to Sikhism from science and its responses to secularisation

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



Unit 3 Theme 3b: Origins and development of Sikh community in Britain

-  [Blended learning lessons](#)
-  [Knowledge organiser](#)



Unit 3 Theme 3c: The challenges of being a religious and ethnic minority in Britain with reference to miri and piri

- [Blended learning lessons](#)
- [Knowledge organiser](#)



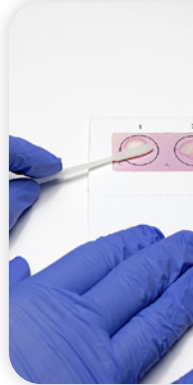
Unit 3 Theme 4a: The status and importance of Rahit Maryada and Rahit Namas

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Unit 3 Theme 4b: Philosophical understanding on the nature of God and religious experience found in the names of God

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Unit 3 Theme 4c: Sikhism and bioethics - infertility

- [Blended learning lessons](#)
- [Knowledge organiser](#)



Unit 3: A Study of Religion

- [Hwb playlist](#)



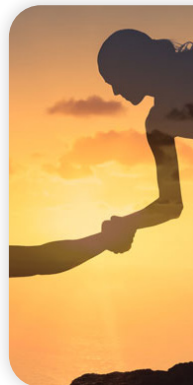
Unit 3: A Study of Religion - Option F: A Study of Sikhism

- [Hwb playlist](#)



Unit 6 Theme 1a: Parables - types and characteristics

- [Blended learning lessons](#)



Unit 6 Theme 1b: Parables – purposes and interpretations

- [Blended learning lessons](#)



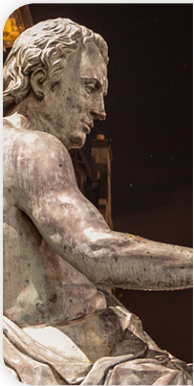
Unit 6 Theme 1c: Close study of New Testament text (parables)

 [Blended learning lessons](#)



Unit 6 Theme 2a: Miracles - types and characteristics

 [Blended learning lessons](#)



Unit 6 Theme 2b: Miracles - purposes and interpretations

 [Blended learning lessons](#)



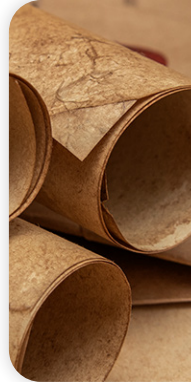
Unit 6 Theme 2c: Close study of New Testament tests (miracles)

 [Blended learning lessons](#)



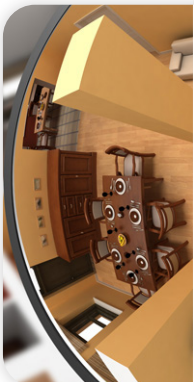
Unit 6 Theme 3a: The Letters (1 Peter) authorship and readership

 [Blended learning lessons](#)



Unit 6 Theme 3b: The Letters (1 Peter) – purpose and place in the New Testament

 [Blended learning lessons](#)



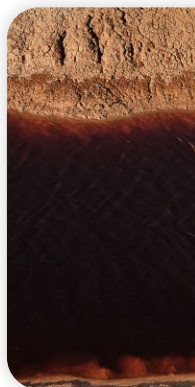
Unit 6 Theme 3c: Close study of New Testament texts (1 Peter)

 [Blended learning lessons](#)



Unit 6 Theme 4a: Apocalyptic literature - definitions and characteristics

 [Blended learning lessons](#)



Unit 6 Theme 4b: Apocalyptic literature - purposes and interpretations

[Blended learning lessons](#)



Unit 6 Theme 4c: Close study of New Testament texts (Revelation)

[Blended learning lessons](#)



Unit 6: Textual Studies (New Testament)

[Hwb playlist](#)

Knowledge organisers



Judaism

[A Level Knowledge organisers](#)

[AS Knowledge organisers](#)



Hinduism

[A level Knowledge organisers](#)

[AS Knowledge organisers](#)



Buddhism

[Knowledge organisers](#)



Christianity

[Knowledge organisers](#)



Sikhism

[Knowledge organisers](#)



Islam

[Knowledge organisers](#)



Ethics

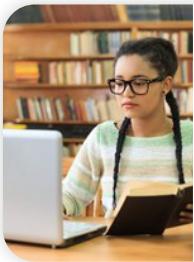
 [Knowledge organisers](#)



Philosophy

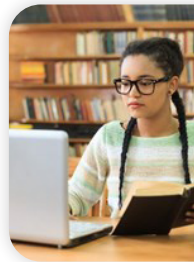
 [Knowledge organisers](#)

Miscellaneous



Exam walk through

 [Unit 2](#)




Exam walk through

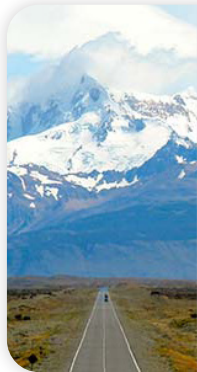
 [Unit 4](#)



Online Exam Review

 [Online Exam Review](#)

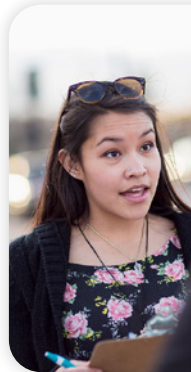
Blended learning



Unit 1: Ymateb i gwestiynau am y ffilm Patagonia

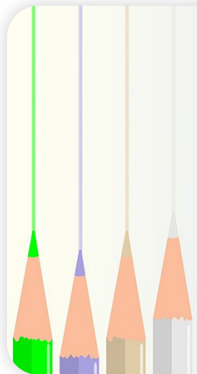
[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 2: Ysgrifennu ffurfiau gwahanol

[Blended learning lessons](#)



Unit 3: Ymargherion gramadeg

[Blended learning lessons](#)

[Knowledge organiser](#)

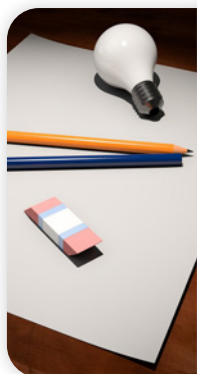


Unit 4: Ymateb i gwestiynau am y ddrama CRASH

[Blended learning lessons](#)

[Knowledge organiser – 1](#)

[Knowledge organiser – 2](#)



Unit 5: Ymarferion trawsieithu

[Blended learning lessons](#)

[Knowledge organiser](#)



Unit 6: Ymarferion gramadeg

[Blended learning lessons](#)

[Knowledge organiser – 1](#)

[Knowledge organiser – 2](#)

Knowledge organisers



Knowledge organiser

[Barddoniaeth](#)



Knowledge organiser

[Cwestiynau synoptig](#)



Knowledge organiser

[Astudio ffilm Patagonia](#)



Knowledge organiser

[Astudio drama Crash](#)



Knowledge organiser

[Y stori fer](#)



Knowledge organiser

[Dyddiadau pwysig mewn hanes](#)

Miscellaneous



Exam walk through

[Unit 3](#)



Exam walk through

[Unit 5](#)



Exam walk through

[Unit 6](#)



Online Exam Review

[Online Exam Review](#)