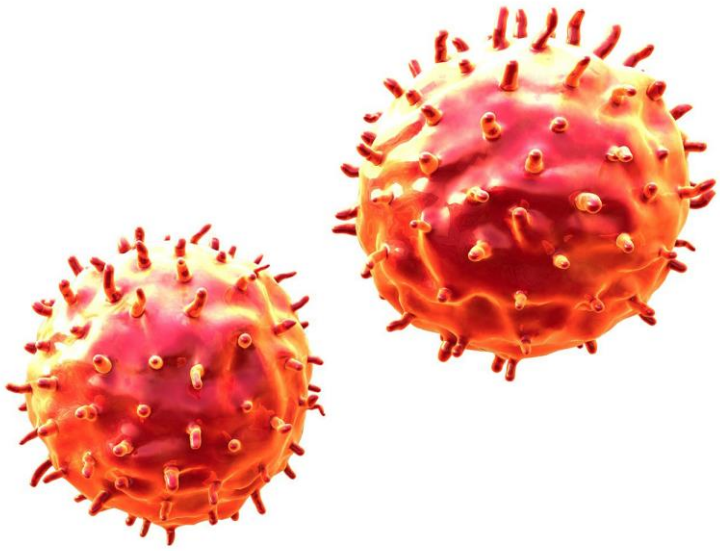
Cambridge Assessment International Education

Next Steps

Cambridge IGCSE™ Biology 0610 and Cambridge International AS & A Level Biology 9700

For Cambridge IGCSE examination from 2020

For Cambridge International AS & A Level examination from 2022



Version 1

Cambridge Pathway

In order to help us develop the highest quality resources, we are undertaking a continuous programme of review; not only to measure the success of our resources but also to highlight areas for improvement and to identify new development needs.

We invite you to complete our survey by visiting the website below. Your comments on the quality and relevance of our resources are very important to us.

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Contents

_Toc534167
Introduction 4
Frequently asked questions by learners 5
Skills, topics and assessment 9
Resources 11
Suggested classroom activity 13
Bridging exercise 18

Introduction

The focus of this guide is on moving on from teaching and studying the **Cambridge IGCSE Biology 0610** syllabus to the **Cambridge International AS & A Level Biology 9700** syllabus.

This guide will help you and your learners:

- understand better what to expect when you start the AS & A Level course
- prepare for the AS & A Level course
- think about ways to achieve success and gain confidence.

You may be using this document at the end of the academic year for Cambridge IGCSE Biology, or at the start of the academic year for Cambridge International AS & A Level Biology. Either way, the aim is to motivate and inspire learners. If there is to be a time gap between delivering this session and starting the AS & A Level course, then the aim is for every learner to `look forward' to the new course positively.

This Introduction, the Resources and Suggested classroom activity sections of this guide are written directly for you, the teacher. The rest of this guide has been written to make it easy for you to adapt and reproduce the content for use by your learners.

Frequently asked questions by learners

Listed below are some questions which learners frequently ask. The answers to each of the questions below are written as a direct communication to your learners. You could copy and paste these to make a PowerPoint, read them out to your group, or produce a booklet for them to read through and discuss.

Is it helpful to have taken the Cambridge IGCSE Biology course?

Yes. The move from Cambridge IGCSE to Cambridge International AS & A Level has been designed to be as smooth a transition as possible. Many of the topic headings are the same so you will already be familiar with the topic and will just progress from there. The style of questions may be similar and the skills you have developed will be useful.

What extra work will I have to do, if I have not taken Cambridge IGCSE Biology?

This will depend on the course you have taken. Many learners without a Cambridge IGCSE background have the same skills and subject knowledge and generally adjust quickly to the 'Cambridge' style when they start their AS & A Level.

You may not have covered some topics that are a useful base for AS & A Level. This is not a problem – you will probably find that your teacher goes over some IGCSE work as a start to a new AS & A Level topic, or if not, you can easily develop your research skills and read up what you need to know. You will find that teaching yourself subject matter at IGCSE Level is much easier when you are working to a higher level.

What is the syllabus?

The syllabus for Cambridge International Biology AS & A Level 9700 is a complete description of the content, examinations and what you need to do to be successful in the qualification. `9700' is the reference number of the Biology syllabus.

An important part of the syllabus for you is the subject content, which details all the subject material you should cover during the course. This content is divided into topics, each of which has an introductory text and is divided further into 'learning outcomes'. These are statements which explain further what you should know and understand about the topic.

Your teacher may give you a copy of the subject content of the syllabus. Or go to the Cambridge website at http://www.cambridgeinternational.org/9700, which publishes the full copy of the syllabus.

How do I make the transition from Cambridge IGCSE Biology to Cambridge International AS & A Level Biology?

This guide will help you prepare for the transition, so there are no surprises in what to expect.

You may find you hardly notice the transition to AS & A Level, or you may find it more difficult to adjust at first and need a bit of time to settle into the new course. Try and assess your own situation and then decide your best course of action.

What are the differences?

Some of the main differences you will find when you study Cambridge International AS & A Level compared to Cambridge IGCSE are listed in the table below.

Fewer subjects	Hopefully you will have chosen the subjects that you really enjoy, are really good at or those which you need to take you on to university and/or your chosen career.
Smaller classes	You will have an opportunity to contribute more to lessons and have more one-to-one interaction with your teacher. You will have more lessons each week: the recommended guided learning hours for IGCSE Biology is 130 compared with 180 guided learning hours for AS and 360 learning hours for the full A Level qualification.
Detailed and specialist content	You will find increased challenge as you study in greater depth, work more independently and begin to develop your own ideas. You will be able to explore topics in much more detail than at IGCSE, maybe finding answers to unanswered questions and learning about certain topics that are completely new.
Independent study	Greater independence is a key part of AS & A Level qualifications, which helps prepare you for study at university. It is important that you use this independent study time well. You can use this time in a variety of constructive ways – for completion of homework tasks, assignments, research, or for completing additional reading around the subject.
Revision	Try to build in some time for revision throughout the course – consolidating and learning notes as you go along makes it much easier to remember when it comes to examination time.
Read around your subject	Build on the knowledge and understanding you gain from the Cambridge endorsed textbooks by using a range of textbooks and internet sites to support your studies and provide you with more background knowledge.
Take notes	When you take notes, try to summarise the main information that you need. Use headings and bullet points to reduce the content and colours to highlight key pieces of information. If using the internet, don't just print pages of information, make notes from them or highlight text to show the key points. Always use your own words where possible.
Independent research	You might have completed some research tasks at IGCSE but you can expect this to be a more regular feature of homework. Ask your teacher for a recommended list of textbooks and websites that you can use so you have a good starting point. Save useful websites that you use to your favourites bar so you know where to find them again.

Folders	You will probably move from exercise books to folders to record your learning and it is important to be organised. Divide your folder into topic sections and keep your notes organised. Many find it useful to add syllabus reference numbers. Keep copies of past questions, mark schemes and example answers together with any completed assessed work. Highlight examination tips in your notes and keep key documents about examinations in a separate section of your folder.
Additional information	In the Additional information section (Section 6) of the syllabus, you will find a list of mathematical requirements, mathematical formulae that will be provided in examinations and notes on the use of statistics. The concepts are generally accessible if you have previously studied IGCSE Mathematics.
Command words	These are the words in an exam question that explain to you what you need to do such as: describe, explain, state, calculate. At Cambridge International AS & A Level, you may be introduced to some new command words. There is a helpful list of command words in the syllabus and some examples of instructional words that may also be used, such as name, list, complete.
Assessment	You need to know: how many and what type of examinations you will sit; the duration of each examination; the total marks allocated for each paper; what the style and structure of the questions is like. It is a good idea to have an assessment overview and copies of past papers and mark schemes.
Key concepts	The key concepts for Cambridge International AS & A Level Biology are: • **Cells as the units of life** - A cell is the basic unit of life and all organisms are composed of one or more cells. There are two fundamental types of cell: prokaryotic and eukaryotic. Understanding how cells work provides an insight into the fundamental processes of all living organisms. • **Biochemical processes** - Cells are dynamic structures within which the chemistry of life takes place. Biochemistry and molecular biology help to explain how and why cells function as they do. • **DNA, the molecule of heredity** - Cells contain the molecule of heredity, DNA. DNA is essential for the continuity and evolution of life by allowing genetic information to be stored accurately, to be copied to daughter cells, to be passed from one generation to the next and for the controlled production of proteins. Rare errors in the accurate copying of DNA known as mutations result in genetic variation and are essential for evolution. • **Natural selection** - Natural selection acts on genetic variation and is the major mechanism in evolution, including speciation. Natural selection results in the accumulation of beneficial genetic mutations within populations and explains how populations can adapt to meet the demands of changing environments.

- **Organisms in their environment** - All organisms interact with their biotic and abiotic environment. Studying these interactions allows biologists to understand better the effect of human activities on ecosystems, to develop more effective strategies to conserve biodiversity and to predict more accurately the future implications for humans of changes in the natural world.

- **Observation and experiment** - The different fields of biology are intertwined and cannot be studied in isolation. Observation, enquiry, experimentation and fieldwork are fundamental to biology, allowing relevant evidence to be collected and considered as a basis on which to build new models and theories. Such models and theories are further tested by experimentation and observation in a cyclical process of feedback and refinement, allowing the development of robust and evidence-based conceptual understandings.

These key concepts will help you to develop a deeper understanding of biology and make links between the different topics.

Skills, topics and assessment

What are the skills needed for the Cambridge International AS & A Level course?

For the examinations taken at AS & A Level, you will be assessed on assessment objectives (AOs) which detail the skills and knowledge you need to display in order to fulfil the requirements of the assessment. These skills are divided into three main groups:

AO1 Knowledge and understanding	**AO2** Handling, applying and evaluating information	**AO3** Experimental skills and investigations

Each of AO1, AO2 and AO3 is divided further into specific skills.

How will I be assessed?

Each of the three AS Level papers are different in style. As part of your assessment, you will have multiple choice questions and structured questions. At AS Level there are questions that require extended responses in addition to short answer questions. You will also have a practical test.
At A Level there are an additional two papers. Paper 4 contains structured questions and Paper 5 is based on the practical skills of planning, analysis and evaluation.

What topics will be studied?

Cambridge IGCSE Biology 0610 serves as a foundation for Cambridge International AS & A Level Biology 9700, which prepares learners for the study of biology-related subjects at university. There are some areas of the Cambridge International AS & A Level syllabus which you will already have studied and some areas that will be new to you. The table below shows the main similarities and areas of progression between the IGCSE and the International AS & A Level syllabus.
Where topics are completely new, there may be more key words and you may need to read around these topics more widely to consolidate your knowledge and understanding.

Six areas of progression from Cambridge IGCSE Biology 0610
You will discover that plant and animal cells are eukaryotic cells, one of the two fundamental cell types. You can see that these cells contain far more cell structures than you have learnt about at IGCSE, which makes them much more interesting. Later you will be able to recognise these cell structures and understand which can be seen with a light microscope and which need a more powerful electron microscope.
You will learn a number of terms that will help increase your knowledge of enzymes.
You may be familiar with cholera as an infectious disease. You will learn about the organisms that cause a range of diseases and consider how these diseases can be prevented and controlled.
You may be familiar with monohybrid inheritance, and will move on to cover the inheritance of two genes (dihybrid inheritance). You will learn that genetic crosses can get more complex and will understand how statistical tests can be used in their analysis.
You will learn more detail and gain a better understanding of the process of photosynthesis. These two learning outcomes show you that there are two main stages in photosynthesis.
At IGCSE you gained a basic understanding of genetic engineering, but there is still much more that can be learned about the techniques involved in this important process.

Six new topics or skills at Cambridge International AS & A Level Biology 9700
You will learn more about the structure of bacterial cells as prokaryotic cells and how they differ from plant and animal cells. You will also learn about the structure of viruses.
You will improve skills and learn new practical skills by carrying out investigations. You will learn how to calculate rates and how to use a colorimeter to improve the accuracy of results obtained. You will begin to learn how to work independently in practical situations. You will improve your ability to make decisions about techniques that should be used and measurements that should be made.
Topic 11 is Immunity where you learn about the biotechnological application of antibodies in medicine.
You will learn about how the cell controls whether genes are ‘switched on’ to allow proteins to be produced, or are ‘switched off’.
When you carry out the practical work detailed in 13.2.3 and 13.2.4, you will be using the practical skills you have developed in the earlier part of the course. The theoretical knowledge you have gained in topic 13, Photosynthesis, will be used to explain your results.
You will be learning about some of the established and more recent techniques of genetic technology that are used in many applications, such as in the forensic science, medicine and agriculture.

Resources

Although some of the resources for AS & A Level are similar to those for Cambridge IGCSE, such as past papers and endorsed textbooks, your learners may not have much experience of researching websites independently or reading around a topic for interest and understanding. Learning new skills and tackling new resources is all part of the challenge for learners of stepping up to Cambridge International AS & A Level Biology.

Past/specimen papers and mark schemes

Past examination papers and specimen papers provide opportunities for learners to become familiar with the assessment requirements of the course. Learners should try to get as much practice in as they can before their final exams. You can refer to the accompanying mark schemes to guide your learners as to how they will be assessed and how they can improve their responses.

Textbooks

There is a wide variety of textbooks available – some which cover the entire course and some which specialise in certain topics. Give your learners a list of suggested reading materials. There are endorsed textbooks that are currently available for this course.

To find a list of the endorsed textbooks go to www.cambridgeinternational.org

Websites

Several websites are recommended in the AS & A Level Biology scheme of work and there are some specific AS & A Level Biology revision sites which are great to use. You can also use search engines to find information, although some sites might be more relevant than others. Sometimes, teachers put lesson presentations on the internet that you can use. Remember to check all internet resources for suitability, making sure that the content is relevant for your syllabus. Also, some websites tend to match a certain syllabus. That does not mean that they are not useful, you will just need to be selective about the topics that you choose from them.

https://www.cellsalive.com/

A very popular and entertaining website. Particularly useful for learning about microscopy, cell division, microorganisms and immunology, it links well to topics covered in the course.

https://www.abpischools.org.uk/age-range/16-19

This website covers a wide range of biological topics, many directly relevant to the AS and A Level syllabus. Each topic is covered in detail, and there is a key-word summary and a one-page summary to download to highlight the main points.

http://www2.estrellamountain.edu/faculty/farabee/biobk/biobooktoc.html

Much of the information is at a level that is suitable for AS & A Level study. The contents page links easily to a main topic and there are subsections for focus on areas of interest. Links to other sites of interest.

https://dnalc.cshl.edu/resources/index.html

This is the DNA learning centre website which contains an extremely wide choice of learning material and variation in presentation. Much of this links directly to the topics covered in the AS and A Level syllabus and there is also considerable extension and background material.

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https://www.biology-pages.info/

Having studied a topic in class or as a self-study module, this free on-line text book provides further information. Some of the content is aimed at a higher level.

https://www.rsb.org.uk/education/teaching-resources/secondary-schools/chemistry-for-biologists

This site explores the biological molecules that make up the structure of living organisms, and the biological molecules, reactions and processes that allow cells and organisms to function. It reviews the basic chemical knowledge required to cover many of the AS and A Level biology topics.

Suggested classroom activity

You could use the plan below to deliver a lesson that supports the transition to AS & A Level study.

Subject: Cell structure to function: the production of an antibody molecule	**Syllabus reference (9700):** **1.2.1, 2.3.2, 4.2.1, 6.2.1, 11.1.3, 11.2.1**
Lesson objectives: To consolidate IGCSE knowledge and understanding of cell structure and of protein synthesis. To introduce cell structures not covered at IGCSE. To discuss the relationship between cell structures and the sequence of events that occur in the synthesis and secretion of an antibody molecule. To introduce the difference between a polypeptide and a protein, using an antibody molecule as an example. To compare terminology used at IGCSE and AS & A Level. To introduce learners to some of the AS & A Level syllabus topics.	**Lesson outcomes:** To understand that structures within cells do not work in isolation. To gain more knowledge about cell structures. To be able to give an outline sequence of events in the production and secretion of an antibody molecule. To be able to make links between different areas of the syllabus. To learn new scientific terminology. To have a greater interest in cell structure and specialisation.
Introduction: Go through the lesson objectives and display them throughout the lesson**.** Give learners a sheet of blank paper and ask them to create a quick drawing of a basic animal cell by drawing a small circle within a larger circle. Ask learners to recall any labels and add these to the diagram. They should use the whole space. A quick check of their recall can be made by asking them to hold up their drawings for you and others to see. Minimum knowledge (Core) will be nucleus, cytoplasm, cell membrane and some may recall ribosomes on rough endoplasmic reticulum, vesicles and mitochondria (Supplement). Show them the diagram or electron micrograph of the plasma cell – explain that this has developed from one of two types of lymphocyte found in the body, a B-lymphocyte. Agree how much more interesting, attractive – and complex the cell becomes when the transition is made to AS & A Level.	**Resources:** Lesson objectives to be projected, or written onto a large poster for display. Blank paper. Image (diagram or electron micrograph) showing ultrastructure of a plasma cell (page 17) as an example of an animal cell. Image of an antibody molecule Activity 1: Cell structure to function – basic and challenge Activity 2: Plasma cell structure to function (this can be modified for differentiation – see notes in Main activities) Activity 3: Production and secretion of antibody molecules – basic and challenge Homework sheet: Activity 4: Antibody production and secretion by plasma cells – basic and challenge

Main activities:

1. Remind learners that they already have some knowledge of cell structure and get them to recall the function of some of these structures. Explain that they are going to carry out some activities that should extend their knowledge of cell structure and help them learn more about the plasma cell.
2. Activity 1: see attached file, which can be modified to suit learner ability and time constraints.

   This is a set of descriptive statements to match particular cell structures and molecules. Learners will only be partly familiar with the information. Explain that they are going to start the transition to the slightly higher academic demand of AS & A Level. There is a basic activity that all learners should try and there are also some ideas for additional matching pairs for a greater challenge for some learners.

   Give each learner the pink strip first and get them to cut up the strip into the statements and mix them up. Then give the learners the full grey strip to carry out the exercise. It helps to create more interest if they are given the pink strip to cut up in the previous lesson, with an explanation that they will need the strips for the next lesson. The strips can be placed in an envelope and handed in.

   Instruction to learners: *Match the cell structure or biological molecule (grey) to its correct description (pink).*

   Learners can work singly (if confident) or in pairs (try and match a learner who has only Core IGCSE knowledge with one that has Supplement knowledge).
3. Go over the answers and discuss Activity 1, especially the idea that cell structures have a particular function. Make sure the whole group see the terms and matching statements for the challenge exercise so that antibodies are introduced. Also ask if they have noticed any differences, in ideas or in terminology between IGCSE and AS & A Level. Examples of this are below.
4. Explain that different cells have different functions and that the function of the plasma cell is the production (synthesis) and secretion (release from the cell) of antibody molecules. A short question and answer session will remind learners of the role of an antibody molecule and set the context.
5. Introduce learners to Activity 2 and explain that what they have just learned about cell structure can be applied to specific examples:

   Instruction to learners: *Match the cell structure or biological molecule (blue) to its correct description (light brown).*

   Note: this activity can be differentiated: Challenge is the complete set of matching pairs, Medium is the removal of microtubules, transport vesicles, rough endoplasmic reticulum and nuclear pores. Basic is the same as medium but allow learners to use their completed Activity 1 as clues. Alternatively, all could do the Activity 2, but those that require clues can use the completed Activity 1.
6. Discuss the answers to Activity 2, making sure that learners can see that there is a sequential flow to the process and that although the cell structures and molecules have specific functions, they work together to allow the plasma cell to carry out its main function.
7. Discuss any further examples of differences in terminology or ideas (see below).
8. If time allows, move on to Activity 3, Basic or Challenge, which consolidates the idea of a sequence of events and the inter-relationship between cell structures. If time is short, this can be a homework activity.

Examples to discuss with learners about some terminology and concept differences between IGCSE and AS & A Level.

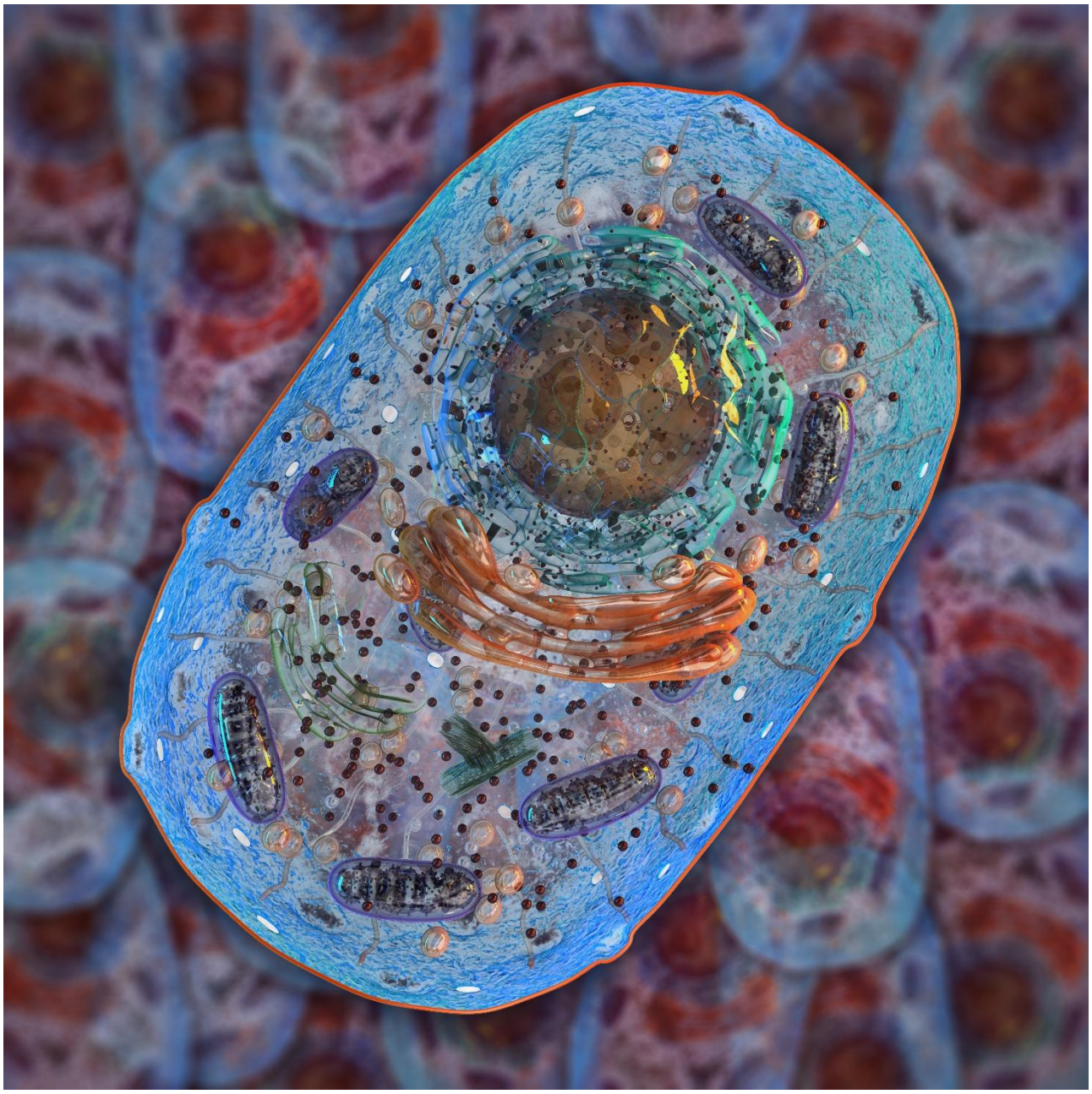
Term	IGCSE ideas	AS & A Level ideas
gene	The explanation in the syllabus is: 'a gene is a length of DNA that codes for a protein' (Core) and 'the sequence of bases in a gene is the genetic code for putting together amino acids in the correct order in a specific protein' (Supplement).	The syllabus statement is: 'a polypeptide is coded for by a gene' and 'a gene is a sequence of nucleotides that forms part of a DNA molecule' Note: the term genetic code is reserved for the idea that a sequence of three nucleotides specifies a particular amino acid – learners will see 'a gene codes for…'
polypeptide / protein	Only proteins are mentioned.	This lesson explores the idea that four chains of amino acids, or four polypeptides, come together to make a functioning protein.
ribosomes	Learners only know about one type (Supplement).	This lesson introduces 80S (larger) ribosomes – learners will also come across 70S (smaller) ribosomes.
rough endoplasmic reticulum	Ribosomes are on rough endoplasmic reticulum (Supplement).	Here, learners find out that rough endoplasmic reticulum • can be abbreviated to RER • is a tubular membrane-bound cell structure • has 80S ribosomes on the external surface • has a lumen into which synthesised polypeptides pass • can begin assembly of proteins from polypeptides.
cell membrane / cell surface membrane	The outer membrane of the cell.	The term cell surface membrane is used for the outer membrane of the cell to distinguish it from other membranes within the cell.
lymphocytes	Lymphocytes produce antibodies.	Plasma cells, which have developed from B-lymphocytes, produce antibodies.

Homework:

Activity 3 (if not covered in class) and Activity 4, Basic or Challenge. The bottom of the sheet of Activity 4, with the list of terms, will only be needed by those who choose the Basic activity.

Activities 3 and 4 overlap to aid learning but are not identical. To consolidate further, learners should be asked to use the answers to 3 and 4 and write a full account. This would be an extended response of the type required in an examination.

Organisation: Some forward planning may be required if your group comprises learners that are mixed Core / Supplement and you decide to carry out pair work. The activities sheets are ready for use but can also be adapted to suit your particular group. It is helpful for sorting if the terms and descriptions are in different colours in Activities 1 and 2 but obviously not essential. To save time the strips in Activities 1 and 2 can be cut before the lesson.	**Plenary:** Run through the lesson objectives to see if learners feel they have been met and confirm that the lesson outcomes have been achieved. Explain to learners that today's lesson has covered some of 9700 syllabus: • cell structures = topic 1 Cell structure • polypeptides, proteins = topic 2 Biological molecules • protein / antibody, synthesis = topic 6 Nucleic acids and protein synthesis (also topic 3 Enzymes, for RNA polymerase) • release of antibodies from the cell surface membrane into the circulatory system = topic 4 Cell membranes and transport and topic 8 Transport in mammals • antibody production by plasma cells = topic 11 Immunity • ATP = topics 1 and 12 Energy and Respiration Discuss how greater depth on the subject matter covered would create overlaps with other topics, for example, Topic 5 The mitotic cell cycle (B-lymphocyte division after activation), Topic 10 Infectious disease (pathogen antigens complexed with antibody). If desired, give learners a list of the lesson Learning outcomes and ask them to note down the extent to which they have achieved these (could be part of homework).
Challenge: Activities 1, 3 and 4 have extended material that is more challenging. Suggestions have been provided for making Activity 2 a differentiated activity to provide more challenge to some learners.	**Assessment opportunities:** Quick visual check of learner knowledge of cell structure at the start of the lesson (or collect in their drawing for checking later). Ability to complete correctly the match of cell structure or molecule to the descriptive statement in Activities 1 and/or 2 and 3. Ability to complete Challenge extension in Activities 1 (and/or 2 if one devised) and 3. Homework activity to mark. Short test could be devised containing a few simple multiple choice questions and some structured response questions at the start of the next lesson.



Animal plasma cell

Bridging exercise

Note for teachers

This Bridging exercise is designed to follow on from the learning in the classroom activity to give an indication of how each learner has gained knowledge and understanding. It makes use of a question compiled from June 2017 question paper 21 and November 2019 question paper 21 and 22. Learners will need access to at least one of the endorsed textbooks. They will also need a copy of the compiled question. The accompanying mark scheme has been compiled from the relevant mark schemes. The complete papers and mark schemes are available from the School Support Hub. As this is the first activity they have done, it would be a good idea to pair learners together, providing each with a partner for support.

Learner task

You will now have completed your classroom activity and hopefully you have enjoyed learning more about cell structures and the sequence of events that occur in the synthesis (production) of antibody. You are going to complete the following activity to give you an idea of how you might work independently as part of the AS & A Level course. Make sure that you first use your resources, then your partner and finally your teacher for support.

Aim: We want you to:

- Read pages from the endorsed textbooks to consolidate your understanding of
  - the cell structures involved in the production of a protein, such as an antibody molecule or a molecule of haemoglobin
  - the process of protein synthesis
  - plasma cells (B-lymphocytes producing antibody)
  - how the structure of an antibody molecule is suited to its function.
- Make notes to give an outline (main points) of
  - polypeptide (protein) synthesis
  - the structure and function of the cell structures involved in the process
  - how the structure of an antibody molecule is suited to its function.
- Use internet research to add some extra ideas to your notes. It is a good idea to keep a note of the websites that you used in case you want to return to them later. As a starting point, try:
  - https://www.cellsalive.com/cells/cell_model.htm
  - https://bscb.org/learning-resources/softcell-e-learning/
  - https://bigpictureeducation.com/cell-poster
  - Find some others that you can share with your partner and add to your useful website list.
- Look for an image of a plasma cell using a light microscope and using an electron microscope
  - discuss how they are different and write down three important differences
  - find out how you can calculate the actual dimension of a cell if you are given the magnification of the image.
- Produce a flow chart to summarise the sequence of main events that occur in the production of a protein such as an antibody molecule or haemoglobin molecule
  or
  produce a table summarising the structure to function of an antibody molecule (agree with your partner who will do the flow chart and who will do the table)
- Work with your partner to compare your ideas and support each other's note taking. Add in any extra information that you have learned from your discussion with each other in a different colour pen.

Next:

- Complete a question that has been compiled using part questions from recent examinations.
  - Now look at the question you have been given (and underline the key terms and command words. Make sure that you understand what the question is asking you to do before you start.

- Work with your partner to plan your answer and to write a first draft for the question. Remember, this is the first time that you have seen an AS Level question so don't worry if you find it challenging at this stage.
- Now look at the mark scheme provided to self-assess your first draft. Answer these questions: what has gone well and what could be improved? Add any additional ideas you might have into your answer in a different colour. If there is anything that you are not sure about, do some extra note taking, chat to partner about it or ask your teacher.
- Fasten all your work together and submit it to your teacher. You have successfully completed an independent research task and your first AS Level standard questions. Great work!

Your completed activity will include: note taking; internet research, comparison of two images, flow chart or table construction; question plan, first draft and self-assessment.

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