

Year 11 to Year 12 Bridging Activity

For Pearson BTEC Level 3 Applied Medical Science (Alternative Academic Qualification)

Purpose: This bridging activity is designed to help students transition from GCSE Science to the expectations and style of the BTEC Medical Science course.

Task 1: Recap and reflect

Part 1: Recap & Reflect – GCSE to BTEC

Task 1: Complete the table by recalling GCSE content and predicting what you'll learn in Medical Science.

GCSE Topic	What do you already know?	What do you think you'll learn in Medical Science?
Cells		
Enzymes		
Diffusion/Osmosis		
DNA		
Diseases		

Extension: Which topic do you feel most confident with? Which would you like to revisit first, and why?

Task 2: Scientific Method and Investigation

Scenario:

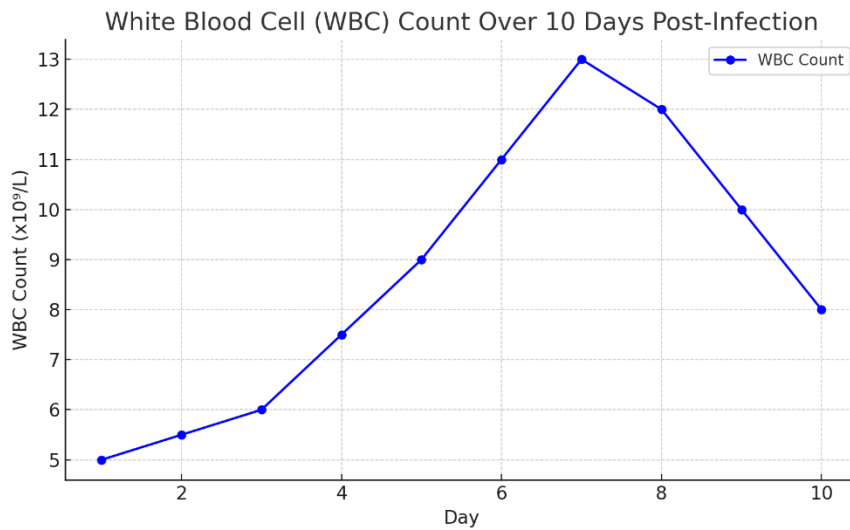
You are working in a pathology lab. A patient's blood sugar levels are suspected to be too high. You need to plan a simple investigation using Benedict's test.

Instructions:

- Write a basic method for testing glucose using Benedict's solution.
 - Identify one control variable, one dependent variable, and one independent variable.
 - Explain how you would ensure reliability and accuracy in your test.
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Task 3: Data Interpretation in Medical Contexts

The graph below shows a patient's white blood cell count over 10 days.



Questions:

1. Describe the trend in white blood cell count from day 1 to day 10.
2. What might cause an increase in white blood cells?
3. Why is white blood cell count an important diagnostic tool?

Stretch:

What would a low white blood cell count indicate?

Task 4: Research Task – Careers in Medical Science

Choose one of the following careers to research and present:

- Biomedical Scientist
- Clinical Researcher
- Haematologist
- Pathology Lab Technician

Answer the following questions:

1. What do they do?
 2. What qualifications do they need?
 3. Why are they important to healthcare?
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Task 5: Introduction to Referencing in Coursework

Referencing is a key part of coursework in Medical Science. It helps show where your information came from and ensures you give credit to the original source. Good referencing also makes your work more reliable and professional.

Why is referencing important?

- It avoids plagiarism (using someone else's ideas without credit).
- It shows that your information is scientifically accurate.
- It lets your reader follow up and check your sources.

Types of Sources You Might Use:

- Textbooks
- Websites
- Scientific journals
- Government health publications
- NHS or NICE guidelines

General Rules for Referencing:

1. Keep track of your sources as you work.
2. Make sure every source is from a reliable and academic provider.
3. Use a consistent format — we will use Harvard referencing in this course.

Your Task:

Read the source descriptions below. Identify what kind of source each one is (e.g., website, book, journal).

Source Description	What Type of Source?
An article titled <i>"Cell Division in Cancer"</i> from BBC Bitesize, accessed on 10 June 2025. Link: www.bbc.co.uk/bitesize/guides/z3gqhv4/revision/1	
A book called <i>"Human Biology for Medical Science"</i> by J. Thompson, published in 2020 by Oxford Press.	

A journal article by R. Patel titled *“Antibiotic Resistance in Hospitals”*, published in *British Medical Journal*, volume 35, pages 102–108, in 2019.

Create a Reference List

Instructions:

Find 3 different sources about a science topic you are interested in. *For example: genetics, muscles, diseases.*

Write full reference using any referencing style: APA or Harvard (you can easily research this and there are websites that generate referencing for you like cite this for me)

You can use this checklist to help reference:

- Author's full name or initials
- Year of publication in brackets
- Title in italics or underlined
- Publisher or source
- Access date for websites

Source Type	Title/Link	Full Reference
Book		
Website		
Article		

In Your Own Words:

- Write 3–4 sentences explaining why referencing is important in Medical Science coursework.
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Stretch Task:

- Use the internet or a textbook to find a reliable scientific source that explains how antibiotics work.
- Identify the type of source and write a correct reference for it.