

# Deyes High School Remote Learning

Engage, Enable and Empower



DEYES  
HIGH  
SCHOOL

LYDIATE  
LEARNING TRUST

# Y12 Applied Science

Work for individual students not attending school

Half Term 2: October to December

Pupils who are absent should select the activity that they are up to. Click on the link in the activity box below. This will take you to Office 365 where the work is stored. In the lesson it will tell the pupil if they need to submit the work to their teacher.

Make sure you complete the tasks in order, i.e. if you have not completed task 1, start there.

## Lessons

Date (week commencing)	Lessons	Focus/Topic/Theme	Hyper link to Activity
2/11/20	1-4	Research and analyse the structures in the musculoskeletal system including how the tissues interact.	<a href="#">Task 1</a>
9/11/20	5-8		
16/11/20	9-12	Research and analyse the types of joints, where they are and how they work.	<a href="#">Task 2</a>
23/11/20	13-16		
30/11/20	17-20	Research three disorders which may affect the musculoskeletal system (must be disorders which affect joints).	<a href="#">Task 3</a>
7/12/20	21-24		
14/12/20	24-28	Research and evaluate treatments for your chosen disorders, analysing which treatments are best for a range of patients and situations.	<a href="#">Task 4</a>

Unit 1 Biology B2 BTEC Applied Science

- Know that cell theory is a unifying concept stating that cells are a fundamental unit of structure, function and organisation in all living organisms.
- Understand the ultrastructure and function of organelles in the following cells:
  - prokaryotic cells (bacterial cell) – nucleoid, plasmids, 70S ribosomes, capsule, cell wall
  - eukaryotic cells (plant and animal cells) – plasma membrane, cytoplasm, nucleus, nucleolus, endoplasmic reticulum (smooth and rough), Golgi apparatus, vesicles, lysosomes, 80S ribosomes, mitochondria, centriole
  - multicellular cells (plant specific) – cell wall, chloroplasts, vacuole, tonoplast, amyloplasts, phloem/sieve tube cells
- Recognise cell organelles from electron micrographs and the use of light microscopes
- Understand the similarities and differences between plant and animal cell structure and function
- Understand how to distinguish between gram-positive and gram-negative bacterial cell walls and why each type reacts differently to some antibiotics
- Calculate magnification and size of cells and organelles from drawings or images
- Understand cell specialisation in terms of structure and function, to include:
  - palisade mesophyll cells in a leaf
  - sperm and egg cells in reproduction
  - root hair cells in plants
  - white blood cells
  - red blood cells

Further Reading: BTEC Revision booklet: Biology

B1 Cell structure and function

Who to contact

You can email **your class teacher** if you have any questions regarding the activities set.

[s.lally@deyeshigh.co.uk](mailto:s.lally@deyeshigh.co.uk)

[a.fozard@deyeshigh.co.uk](mailto:a.fozard@deyeshigh.co.uk)



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