

Subject	Year	Term
Biology	13	2
Topic		
Sensing & Responding to Change - External		
Content (Intent)		
Prior Learning (Topic) Year 12: Mass Transport in Mammals; Transport across membranes; Cell Structure;		
<p>Survival and Response - Taxis, Tropisms & Kineses</p> <p>Receptors – Pacinian corpuscle, Human retina: rods and cones Control of Human heart rate</p> <p>Nervous coordination - Nerve impulse formation and conduction Role of myelin Nature and importance of refractory period Factors affecting speed of impulse conduction Synaptic transmission</p> <p>Skeletal muscle contraction – Gross and microscopic structures of skeletal muscle Myofibril ultrastructure Myofibril contraction including roles of calcium, tropomyosin, ATP and phosphocreatine Fast and slow skeletal muscle fibres.</p>		
Future Learning (Topic) Year 13: Sensing & Responding to Change – Internal. Further study at university or apprenticeship level		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Demos Location of rods and cones by testing colour detection in peripheral vision</p> <p>Practical work Required Practical 10</p> <p>Written Class notes Past paper questions in class Past paper questions in homeworks Write-ups of required practical 9</p>	<p>- 5 x standard homeworks (Grade given. Written & verbal feedback. Response expected.) -1 x end of topic test (Grade given. Verbal feedback to class and individuals.) - Assessment of CPAC skills from the practical (both written and practical) as detailed on the practical sheets.</p>	

How can parents help at home?

Look at the topic specific resources on the VLE

Use appropriate youtube channels: cognito, freesciencelessons, Crash Course Biology.
Encourage students to use the textbook issued.

Take an interest! Ask your children what they have learnt and be curious about their learning.

Helpful further reading/discussion

Reading

New Scientist
Biological Science Review
Magazine
The Biologist Magazine –
Royal Society of Biology
Royal Society of Biology blog

Vocabulary Lists

*Taxis, Kinesis, Tropism, IAA,
myelin, action potential,
resting potential, synapse,
neurotransmitter,
neuromuscular junction,
sarcooplasm, sarcoplasmic
reticulum, actin, myosin,
tropomyosin, myofibril.*

Careers Links

Biochemist
Biomedical scientist
Biological scientist
Doctor
Nurse
Midwife
Physiotherapist
Veterinary medic
Veterinary nurse
Bioveterinary scientist
Healthcare scientist
Ecologist
Zoologist
Sport scientist