AQA GCSE BIOLOGY

Year 10 – Summer Term

CONTENT:

B10 – The human nervous systems

After this topic, students should know: why it is important to control your internal environment; the key elements of control systems.
Why you need a nervous system; how the structure of the nervous system is adapted to its function; how receptors enable you to respond to changes in your surroundings.
What reflexes are; how reflexes work; why reflexes are important in your body.
What the main areas of the brain do; how scientists find out about the structure and functions of the brain; the main parts of the human eye and how the structures are related to their functions.
How the eye focuses light; how the eye focuses on near and distant objects; what happens in short sightedness and long sightedness and how these problems can be solved.

B10.1 Principles of homeostasis; B10.2 The structure and function of the human nervous system; B10.3 Reflex actions; B10.4 The brain; B10.5 The eye; B10.6 Common problems of the eye.

B11 Hormonal control

After this topic, students should know:
What a hormone is; the main organs of the endocrine system; the role of the pituitary gland.
The role of the pancreas in monitoring and controlling blood glucose concentration; how insulin controls blood glucose levels in the body; how excess glucose is converted to glycogen for storage; what causes diabetes.
How the treatment of diabetes has developed over time; the differences in the way type 1 and type 2 diabetes are treated.
What adrenaline and thyroxine do in the body; the importance of negative feedback systems; the main human reproductive hormones; how hormones control the changes at puberty.
The roles of hormones in human reproduction; how hormones interact to control the menstrual cycle.
A number of different methods of contraception.
How hormones can be used to treat infertility; how plants respond to light and gravity; the importance of auxin in plant responses.
How plant hormones are used in agriculture and horticulture.

B11.1 Principles of hormonal control; B11.2 The control of blood glucose levels; B11.3 Treating diabetes; B11.4 The role of negative feedback; B11.5 Hormones in human reproduction; B11.6 Hormones and the menstrual cycle; B11.7 Contraception; B11.8 Infertility treatments; B11.10 Using plant hormones.

Recommended online resources:

Kerboodle- Digital Textbook – w:kerboodle.com u:initialsurname p:initialsurname inst.code:yh7 – the individual lesson breakdown is here.

BBC Bitesize: KS4 Science AQA – then find the relevant topics

YOUTUBE: 'GCSESCIENCELESSONS' then search for the topic of interest

Oak National Academy: Lessons available linked to above topics.