

Level 789 Pathway: Biology

Yr	Biology Targets
11	<ul style="list-style-type: none"> a. Evaluate the advantages and disadvantages of monoclonal antibodies. b. Evaluate the effect of mutations on the production of proteins. c. Evaluate the impact of environmental changes on the distribution of species in an ecosystem. d. Evaluate the ethics of cloning. e. Evaluate the impact of modern farming methods.
10	<ul style="list-style-type: none"> a. Explain in detail the role of the hormone ADH on the nephron. b. Explain in detail the process by which root hairs absorb water + mineral ions by active transport, using correct terminology c. Explain fully the role of chloroplasts in photosynthesis and how various factors affect its rate, including limiting factors d. Explain in detail the mechanism of negative feedback in terms of the action of the hormones Thyroxin and adrenalin. e. Explain in detail the production of insulin by GM bacteria. Evaluate the use of genetically modified organisms f. Evaluate different scientists (Darwin, Lamarck, Wallace) theories of evolution.
9	<ul style="list-style-type: none"> a. Explain in detail using all technical terms the lock and key theory of enzyme action. b. Explain the term denature, factors causing denaturation and the effect on rates of reactions. c. Evaluate the claims made about sports drinks using knowledge of the process of osmosis and the structure of cell membranes. d. Evaluate the use of stem cells. e. Calculate magnification of a microscope slide.
8	<ul style="list-style-type: none"> a. Recall the products of digestion of the three main groups of enzymes. b. Explain how we breathe in and out. c. Describe how the features of a gas exchange surface maximise the movement of gases in and out of cells d. Explain adaptations of plants and animals and relate them to their habitats. e. Explain how you can estimate the number of plants in a given area.
7	<ul style="list-style-type: none"> a. Define osmosis and describe in simple terms how water moves into and out of a cell by osmosis. b. Recall the photosynthesis equation, explain why it is important to plants and where it occurs in plant cells. c. Explain how you test a leaf for starch. d. Explain the advantages and disadvantages of sexual and asexual reproduction. e. State the hormones used to control the menstrual cycle. f. Label a sperm and egg cell and relate their labels to their functions.

Level 678 Pathway: Biology

Yr	Biology Targets
11	<ul style="list-style-type: none"> a. Evaluate the advantages and disadvantages of monoclonal antibodies. b. Explain causes and effects of different plant diseases. c. Describe in detail the structure and function of DNA. d. Evaluate the effect of mutations on the production of proteins. e. Evaluate the impact of environmental changes on the distribution of species in an ecosystem. f. Evaluate the ethics of cloning.
10	<ul style="list-style-type: none"> a. Explain in detail the role of the hormone ADH on the nephron. b. Explain the process by which root hairs absorb water + mineral ions by active transport, using correct terminology c. Describe where photosynthesis takes place inside plant cells and can explain several factors that affect its rate d. Explain in detail the mechanism of negative feedback in terms of the action of the hormones Thyroxin and adrenalin. e. Explain in detail the production of insulin by GM bacteria and evaluate the use of genetically modified organisms f. Evaluate different scientists (Darwin, Lamarck, Wallace) theories of evolution.
9	<ul style="list-style-type: none"> a. Explain in detail using all technical terms the lock and key theory of enzyme action. b. Explain the term denature, factors causing denaturation and the effect on rates of reactions. c. Evaluate the claims made about sports drinks using knowledge of the process of osmosis and the structure of cell membranes. d. Evaluate the use of stem cells. e. Calculate magnification of a microscope slide.
8	<ul style="list-style-type: none"> a. Recall the products of digestion of the three main groups of enzymes. b. Explain how we breathe in and out. c. Describe how the features of a gas exchange surface maximise the movement of gases in and out of cells. d. Explain adaptations of plants and animals and relate them to their habitats. e. Explain how you can estimate the number of plants in a given area.
7	<ul style="list-style-type: none"> a. Define osmosis and describe in simple terms how water moves into and out of a cell by osmosis. b. Recall the photosynthesis equation, explain why it is important to plants and where it occurs in plant cells. c. Explain how you test a leaf for starch. d. Explain the advantages and disadvantages of sexual and asexual reproduction. e. State the hormones used to control the menstrual cycle. f. Label a sperm and egg cell and relate their labels to their functions.

Level 567 Pathway: Biology

Yr	Biology Targets
11	<ul style="list-style-type: none"> a. Explain accommodation to focus the eye. b. Explain the roles of auxins, Gibberellins and ethene in controlling plant growth. c. Describe in detail the structure and function of DNA. d. Evaluate the ethics of cloning. e. Evaluate the impact of modern farming methods. f. Evaluate changes to the nitrogen cycle.
10	<ul style="list-style-type: none"> a. Explain the role of the hormone ADH on the nephron. b. Explain the process by which root hairs absorb water and mineral ions from the soil by active transport including all relevant key words and terms. c. Explain how and why various factors affect the rate of photosynthesis and the significance of limiting factors. d. Explain the production of insulin by GM bacteria and start to evaluate the use of genetically modified organisms e. Evaluate different scientists (Darwin, Lamarck, Wallace) theories of evolution.
9	<ul style="list-style-type: none"> a. Explain using all technical terms the lock and key theory of enzyme action. b. Explain the term denature, factors causing denaturation and the effect on rates of reactions. c. Evaluate the claims made about sports drinks using knowledge of the process of osmosis and the structure of cell membranes. d. Evaluate the use of stem cells. e. Calculate magnification of a microscope slide.
8	<ul style="list-style-type: none"> a. Recall the products of digestion of the three main groups of enzymes. b. Explain how we breathe in and out. c. Describe how the features of a gas exchange surface maximise the movement of gases in and out of cells. d. Explain adaptations of plants and animals and relate them to their habitats. <ul style="list-style-type: none"> a. Explain how you can estimate the number of plants in a given area
7	<ul style="list-style-type: none"> a. Define osmosis and describe in simple terms how water moves into and out of a cell by osmosis. b. Recall the photosynthesis equation, explain why it is important to plants and where it occurs in plant cells. c. Explain how you test a leaf for starch. d. Explain the advantages and disadvantages of sexual and asexual reproduction. e. State the hormones used to control the menstrual cycle. f. Label a sperm and egg cell and relate their labels to their functions.

Level 456 Pathway: Biology

Yr	Biology Targets
11	<ol style="list-style-type: none">Explain what a mutation is.Recall the different structures of the eye and relate them to their functions.Explain how we can clone plants and animals.Explain the impact of modern farming methods.Explain the carbon cycle.
10	<ol style="list-style-type: none">Explain the role of the kidney.Explain the role of active transport and give an example of it.Explain how and why various factors affect the rate of photosynthesis.Explain what a genetically modified organism is and give an example.Explain different scientists' (Darwin, Lamarck, Wallace) theories of evolution
9	<ol style="list-style-type: none">Recall what an enzyme does and what it is made of.Explain the term denature, factors causing denaturation.Define osmosis.Recall what stem cells are used for.Draw and label the differences between plant and animal cells.
8	<ol style="list-style-type: none">Recall the three main groups of enzyme.Explain how we breathe in and out.Explain how alveoli are adapted for gas exchange.Recall adaptations of plants and animals and relate them to their habitats.Explain how to use a quadrat.
7	<ol style="list-style-type: none">Recall what plants need for photosynthesis.Describe how you test a leaf for starch.Define what sexual and asexual reproduction are.Recall 3 changes that happen to boys and girls during puberty.Label a sperm and egg cell.