

Name _____ Class _____ Date _____

Organising animals and plants

Lesson	Target 4		Target 6		Target 8	
B4.1 The blood	I can state the main components in blood.	<input type="checkbox"/>	I can summarise the process of blood clotting.	<input type="checkbox"/>	I can suggest how white blood cells are adapted to their function.	<input type="checkbox"/>
	I can recognise the components of blood from photomicrographs.	<input type="checkbox"/>	I can view blood under a light microscope and recognise components.	<input type="checkbox"/>	I can estimate the diameter of a red blood cell and comment on its uncertainty.	<input type="checkbox"/>
	I can describe the function of each component in blood.	<input type="checkbox"/>	I can explain how red blood cells are adapted to their function.	<input type="checkbox"/>	I can evaluate in detail a model of the blood.	<input type="checkbox"/>
B4.2 The blood vessels	I can state the three main types of blood vessel and recognise them from diagrams.	<input type="checkbox"/>	I can explain how the structure relates to the functions of blood vessels.	<input type="checkbox"/>	I can explain in detail the importance of a double circulatory system.	<input type="checkbox"/>
	I can estimate heart rate.	<input type="checkbox"/>	I can comment on how accurate estimations are.	<input type="checkbox"/>	I can explain how to make estimates more accurate in terms of precision of data.	<input type="checkbox"/>
B4.3 The heart	I can state the function of the heart.	<input type="checkbox"/>	I can describe the function of the main structures of the human heart.	<input type="checkbox"/>	I can explain in detail how the structure of the different parts of the human heart is related to their function.	<input type="checkbox"/>
	I can state the main structures of the human heart.	<input type="checkbox"/>	I can describe the problems that can develop with blood vessels in the heart and their treatments.	<input type="checkbox"/>	I can recognise the main structures of the heart when carrying out a heart dissection.	<input type="checkbox"/>
	I can state examples of problems that can develop in blood vessels in the human heart.	<input type="checkbox"/>	I can suggest advantages and disadvantages of using stents and statins.	<input type="checkbox"/>	I can evaluate the use of stents and statins in treating problems with blood vessels.	<input type="checkbox"/>

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B4.4 Helping the heart	I can state that heartbeat is maintained by a group of cells that act as a pacemaker.	<input type="checkbox"/>	I can explain why an irregular heartbeat is detrimental to health.	<input type="checkbox"/>	I can explain how a natural pacemaker maintains the heartbeat.	<input type="checkbox"/>
	I can state some ways in which the heart can stop functioning efficiently.	<input type="checkbox"/>	I can describe why people may have objections to heart transplants.	<input type="checkbox"/>	I can suggest how an artificial pacemaker regulates an irregular heartbeat.	<input type="checkbox"/>
	I can describe why a person may need an artificial pacemaker or an artificial heart.	<input type="checkbox"/>	I can summarise the advantages and disadvantages different treatments of heart problems.	<input type="checkbox"/>	I can evaluate in detail the different methods used in the treatment of heart problems.	<input type="checkbox"/>
B4.5 Breathing and gas exchange	I can list the main structures of the gas exchange system.	<input type="checkbox"/>	I can describe the function of the main structures of the gas exchange system.	<input type="checkbox"/>	I can evaluate in detail a model of the lungs.	<input type="checkbox"/>
	I can state that gas exchange happens in the alveoli.	<input type="checkbox"/>	I can describe how alveoli are adapted.	<input type="checkbox"/>	I can explain in detail how adaptations of alveoli result in efficient gas exchange.	<input type="checkbox"/>
	I can use data in the form of percentages to describe the differences in the composition of inhaled and exhaled air.	<input type="checkbox"/>	I can describe the processes of ventilation and gas exchange.	<input type="checkbox"/>	I can explain the differences between the composition of inhaled and exhaled air.	<input type="checkbox"/>
B4.6 Tissues and organs in plants	I can recognise examples of plant organs and state their functions.	<input type="checkbox"/>	I can describe how plant organs are involved in the transport system.	<input type="checkbox"/>	I can suggest what type of plant organs unfamiliar structures are.	<input type="checkbox"/>
	I can use a light microscope to view a cross-section of a leaf.	<input type="checkbox"/>	I can use a microscope to identify the different tissues in a cross-section of a leaf.	<input type="checkbox"/>	I can use a light microscope to draw a leaf cross-section and calculate scale.	<input type="checkbox"/>
	I can state the functions of different plant tissues.	<input type="checkbox"/>	I can explain how the structures of tissues in the leaf are related to their functions.	<input type="checkbox"/>	I can suggest functions for unknown plant tissues.	<input type="checkbox"/>
B4.7 Transport systems in plants	I can state the function of xylem and phloem tissue.	<input type="checkbox"/>	I can describe why transport in plants is important.	<input type="checkbox"/>	I can explain in detail how the rate of transport through a plant can be measured.	<input type="checkbox"/>
	I can collect evidence for movement of water through xylem.	<input type="checkbox"/>	I can explain how the structure of xylem and phloem are adapted to their functions.	<input type="checkbox"/>		

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B4.8 Evaporation and transpiration	I can state that transpiration is the evaporation of water vapour from the leaves.	<input type="checkbox"/>	I can describe how transpiration maintains the movement of water from roots to leaves.	<input type="checkbox"/>	I can evaluate drinking from a straw as a model for transpiration.	<input type="checkbox"/>
	I can state the function of stomata.	<input type="checkbox"/>	I can describe how the opening and closing of stomata is controlled by guard cells.	<input type="checkbox"/>	I can explain in detail how stomata control transpiration.	<input type="checkbox"/>
	I can calculate the mean number of stomata on a given area of leaf.	<input type="checkbox"/>	I can use sampling to estimate the number of stomata on a leaf.	<input type="checkbox"/>	I can suggest reasons for differences in the number and distribution of stomata, as well as their adaptations.	<input type="checkbox"/>
B4.9 Factors affecting transpiration	I can recognise the factors that affect transpiration.	<input type="checkbox"/>	I can explain why temperature, humidity, light intensity and the amount of air flow affect the rate of transpiration.	<input type="checkbox"/>	I can apply particle model to explain in detail why temperature, humidity, light intensity and the amount of air flow affect the rate of transpiration.	<input type="checkbox"/>
	I can describe how a potometer can be used to estimate the volume of water lost by a plant.	<input type="checkbox"/>	I can describe the differences between a moving bubble potometer and a mass photometer.	<input type="checkbox"/>	I can summarise adaptations to control water loss and explain how they work.	<input type="checkbox"/>
	I can identify variables when investigating rate of transpiration.	<input type="checkbox"/>	I can make a prediction using scientific knowledge when investigating rate of transpiration.	<input type="checkbox"/>	I can evaluate in detail the use of a potometer to measure the rate of transpiration.	<input type="checkbox"/>