



Work for individual students not attending school

Half Term 2: October to December

Pupils who are absent should select the lesson activity that they are up to

- Click the link and watch the video.
- Complete the tasks as you watch. Write your answers on paper for all the tasks set.
- Complete the exit quiz by clicking the green circles at the bottom of the screen. ●●●●●
- Submit your work to your teacher when you return to school.

Date (week commencing)	Lesson	Focus/Topic/Theme	Hyper link to Activity
2/11/20	1	The Lungs	https://classroom.thenational.academy/lessons/the-lungs-ccu3ge?activity=video&step=1
	2	Blood Vessels	https://classroom.thenational.academy/lessons/blood-and-blood-vessels-c8t62c?activity=video&step=1
9/11/20	3	The Heart	https://classroom.thenational.academy/lessons/the-heart-6ct3jd?activity=video&step=1
16/11/20	4	Heart Disease	https://classroom.thenational.academy/lessons/heart-disease-61k68d?activity=video&step=1
	5	Heart Rate	https://classroom.thenational.academy/lessons/heart-rate-6cr32r?activity=video&step=1
23/11/20	6	Lifestyle and Health	https://classroom.thenational.academy/lessons/non-communicable-disease-75jk6r?activity=video&step=1
30/11/20	7	Cancer	https://classroom.thenational.academy/lessons/cancer-c8rp8d?activity=video&step=1
7/12/20	8	<p>Revision: Select and complete revision activities below.</p> <p>GCSE Bitesize: Using the web link read the revision notes and watch the video. https://www.bbc.co.uk/bitesize/guides/zhnk7ty/revision/1</p> <p>SENECA: Use the web link to work through the revision notes and attempt questions at the end of the topic. https://app.senecalearning.com/classroom/course/891f0540-1d79-11e8-a6da-15f18bba751c</p>	

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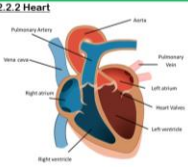
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14/12/20	9	Revision: Create revision flashcards using the knowledge organisers to help you with recall and understanding of the topic.	

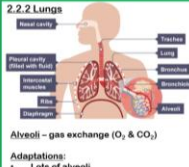
Year 10 Organisation – Circulatory System Unit 2

2.2.2 Heart



The natural resting heart rate is controlled by a group of cells located in the right atrium that act as a pacemaker.

2.2.2 Lungs



Alveoli – gas exchange (O₂ & CO₂)

Adaptations:

- Lots of alveoli
- Good blood supply
- Capillaries close to each alveolus
- Thin walls

Keyword	Definition
Aorta	Carries oxygenated blood from the heart to the body
Vena cava	Carries deoxygenated blood from the body into the right atrium of the heart
Pulmonary artery	Carries deoxygenated blood from the heart to the lungs
Pulmonary vein	Carries oxygenated blood from the lungs into the left atrium of the heart
Ventricle	Bottom two chambers that contract to force blood out of the heart
Heart Valves	Prevents the blood flowing backwards out of the heart
Double circulatory system	Two separate circuits and blood passes through the heart twice – heart & lungs and heart & other organs

2.2.2 Blood Vessels

- Stretch as the blood is forced through them and go back to shape afterwards
- Thick walls containing muscles and elastic fibres
- Blood in the arteries under high pressure
- Thinner walls than arteries and have valves to prevent back flow – they close
- Blood is under less pressure than in the arteries
- Tiny blood vessels that link arteries and veins
- Narrow with very thin walls
- Found close to cells

2.2.3 Blood Components

Plasma – yellow liquid that transports CO₂, urea, hormones & small soluble products of digestion

Red blood cell – biconcave disc filled with haemoglobin. Transports oxygen and has no nucleus

White blood cell – immune system. Lymphocytes make antibodies and phagocytes engulf and digest pathogens

Platelets – cell fragments with no nucleus. Help blood to clot the site of a wound (network of fibres)


2.2.4 CHD (non-communicable)

- Coronary arteries supplying oxygen to the heart muscle become narrowed
- Build up of fatty material on the lining of the vessels:
 - Blood flow is reduced
 - Oxygen supply is reduced
 - Leads to pain, heart attack, even death
- 4 stages: atherosclerosis, thrombosis, aneurysm, myocardial infarction

Treatments: Statins, Bypass, Coronary artery surgery

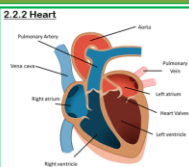
Further Reading

Combined Science CGP: Page
Separate Science CGP: Page
<https://www.bbc.com/bitesize/guides/zshnk7y/revision/1>



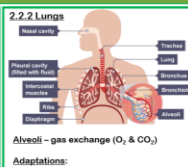
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Contact

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

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