



Science Focus:	Animals, Including Humans	Year 6	Summer Term 1
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The Human Circulatory System	
The main parts of the human circulatory system:	<ul style="list-style-type: none"> heart blood vessels blood
What does the heart do?	The heart pumps the blood through the blood vessels so that food and oxygen can get to all the parts of the body.
What do the blood vessels do?	The blood vessels carry the blood around the body.
There are three main types of blood vessels:	<ul style="list-style-type: none"> The arteries, which carry the blood away from the heart. The capillaries, which enable the actual exchange of energy between the blood and the tissues. The veins, which carry blood from the capillaries back toward the heart.
What does the blood do?	Blood moves food and oxygen around the body.

Healthy Lifestyle	
Things humans need to be healthy:	<ul style="list-style-type: none"> To have a balanced diet of the right amount of different types of food and drink To exercise regularly To be hygienic
What is a balanced diet?	<ul style="list-style-type: none"> Drink 6-8 cups of fluids a day See the Eatwell Guide (balanced meals)
Health risks that can damage the body:	<ul style="list-style-type: none"> smoking drugs alcohol obesity
Dangers of smoking:	<ul style="list-style-type: none"> addictive can cause heart disease and cancer
Dangers of drugs:	<ul style="list-style-type: none"> addictive can damage the brain or cause death
Dangers of alcohol:	<ul style="list-style-type: none"> can be okay in small amounts for adults can damage the liver, heart and stomach
Dangers of obesity :	<ul style="list-style-type: none"> can cause heart disease can lead to cancer

How Do the Lungs Work?

What are lungs?	You have two lungs, which together form one of the largest organs in your body.
Breathing in	<p>When you inhale, or breathe in, the air goes in through your nose or mouth. Little hairs called cilia inside your nostrils catch tiny particles of dust.</p> <p>Your diaphragm flattens out (contracts), your ribcage lifts and the air goes through all the little branches in your lungs to fill up the air sacs, or alveoli.</p> <p>Oxygen goes through the walls of the alveoli and into the capillaries where the oxygen enters the red blood cells in each tiny blood vessel. The blood carries the oxygen to the heart. The heart pumps all the oxygen-carrying blood to every cell in the body.</p>
Breathing out	<p>As each red blood cell empties its load of oxygen, it picks up carbon dioxide from the cells and heads back to the lungs.</p> <p>The carbon dioxide is carried by the red blood cells in the lungs' capillaries to the alveoli, where it is emptied into the air that leaves the body when you breathe out.</p> <p>For you to exhale, or breathe out, the diaphragm relaxes, muscles between the ribs relax and air is pushed out of the lungs.</p> <p>This air then goes up through all the bronchioles, up the bronchi, up the trachea and out through the nose or mouth.</p>

Circulation

Key Vocabulary

Spelling	Definition
addictive	Causing a strong and harmful need to regularly have or do something : very enjoyable in a way that makes you want to do or have something again.
alcohol	a colourless liquid which is produced by the natural fermentation of sugars and is the intoxicating constituent of wine, beer, spirits, and other drinks.
blood	The red liquid that circulates in the arteries and veins of humans and other vertebrate animals, carrying oxygen to and carbon dioxide from the tissues of the body.
circulatory	Relating to the circulation of blood.
obesity	The state of being very overweight.
oxygen	A gas that is in the air we breathe.
smoking	The action or habit of inhaling and exhaling the smoke of tobacco by sucking on the end of a lit cigarette, cigar, pipe, etc.