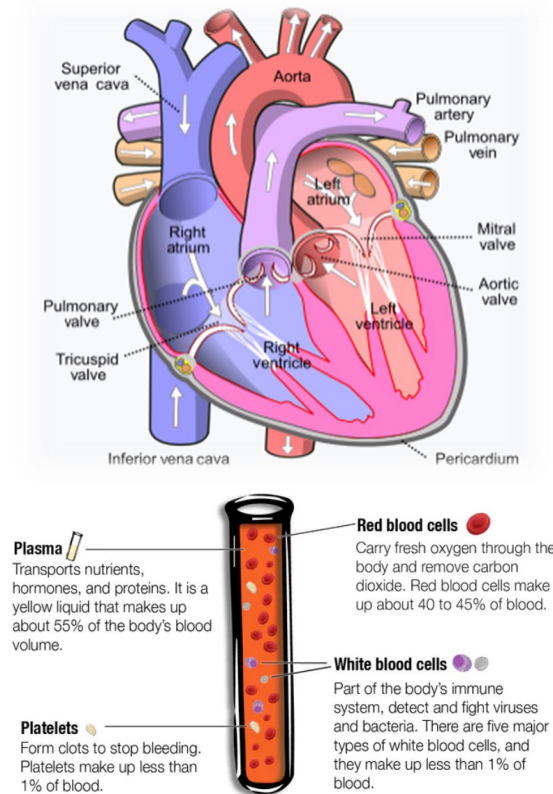


## Science: Key Knowledge

- ♦ The heart is one of the most important organs in your body. It is the key organ in your circulatory system—the system which keeps blood flowing around your body.
- ♦ Blood carries lots of important things—such as oxygen and nutrients. Each part of your body needs oxygen and nutrients to keep it alive and healthy.
- ♦ The heart is a very strong muscle. It squeezes and pushes blood to other areas of your body.
- ♦ Blood cells stop off at the lungs to collect the oxygen that they will deliver around the body.
- ♦ Blood travels along tubes on its journey. If travelling away from the heart, it travels along tubes called arteries. If travelling back towards the heart (after having dropped off nutrients and oxygen) the tubes the blood travels along are called veins.



## Vocabulary

heart	aorta
organ	superior/inferior vena cava
circulatory system	pulmonary artery
blood	pulmonary vein
oxygen	mitral valve
nutrients	aortic valve
muscle	right ventricle
artery	left ventricle
arteries	plasma
vein	red blood cells
atrium	plasma

## Design and Technology: Key Knowledge

- ♦ Your task will be to create a 'heart-healthy' meal.
- ♦ A target market is the group of people you will aim your product at. You need to get to know what these people want from a product.
- ♦ You will need to carry out research into foods which are good for your heart and produce a product that meets this design brief, creating it safely and hygienically.

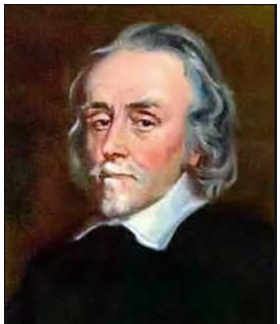


## Vocabulary

target market	design
audience	make
heart-health	evaluate
requirements	improve
product	adapt
research	adjust
nutrition	

History: Key Knowledge

- ♦ William Harvey was an English physician (1578-1657) who was the first person to accurately describe how blood was pumped around the body by the heart.
- ♦ Before William's discovery, people did not fully understand that the heart pumped blood in a circular motion around the body.
- ♦ Daniel Hale Williams (1856-1931), an African-American physician, was one of the first to perform open-heart surgery. He is regarded as a pioneer, as, during America's civil unrest, he faced discrimination, yet went on to become highly successful in his field and opened the first hospital that allowed interracial staff to work there.



William Harvey



Daniel Hale Williams

Vocabulary	
physician	blood
cardiologist	donation
surgery	organ
surgeon	heart
pioneer	
civil	
medicine	

Art: Key Knowledge

- ♦ You will be sculpting clay hearts in art lessons.
- ♦ You will learn how to use a range of tools and skills, such as rolling, coiling, pinching, bending, twisting, wrapping, joining and hollowing, to create a realistic-looking clay heart.



Vocabulary	
sculpt	bending
mouldable	twisting
clay	wrapping
rolling	joining



Scan to view the journey of a red blood cell

		Donor's blood type							
		O-	O+	B-	B+	A-	A+	AB-	AB+
Recipient's blood type	AB+	✓	✓	✓	✓	✓	✓	✓	✓
	AB-	✓		✓		✓		✓	
	A+	✓	✓			✓	✓		
	A-	✓				✓			
	B+	✓	✓	✓	✓				
	B-	✓		✓					
	O+	✓	✓						
	O-	✓							

