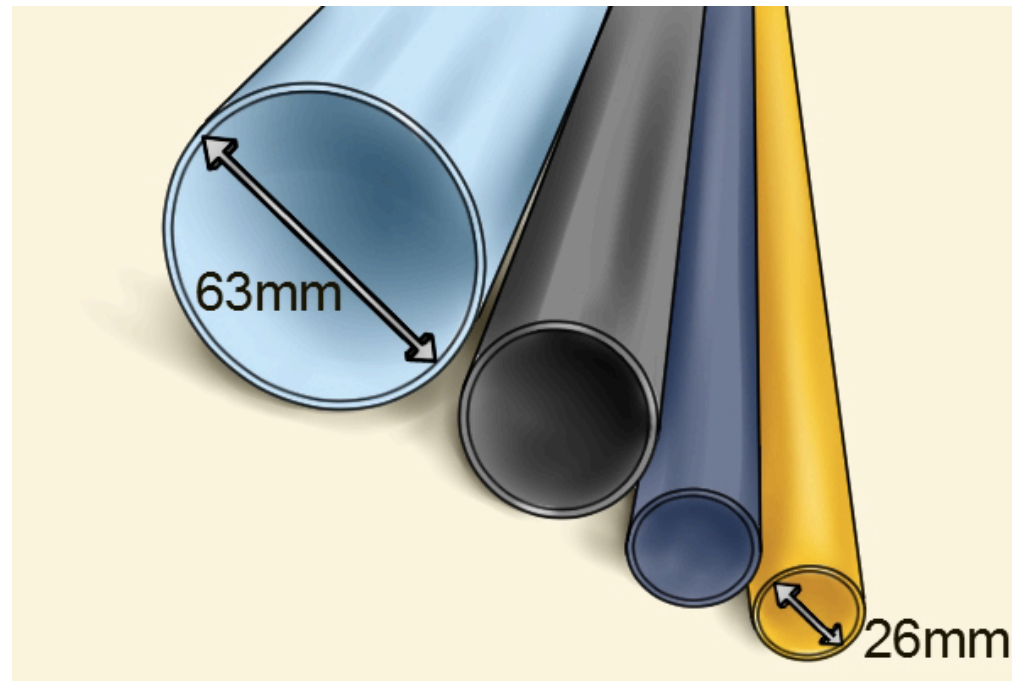


Topic	Veins, arteries and capillaries.	Level	GCSE (or any course for students aged 11-16)
Outcomes	<ol style="list-style-type: none"> 1. To describe how blood flows around the body 2. To state the substances that are transported around the body in the context of respiration 3. To use a model to explain how arteries, veins and capillaries are adapted for their function 		

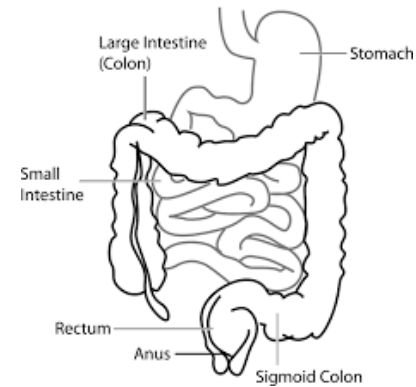
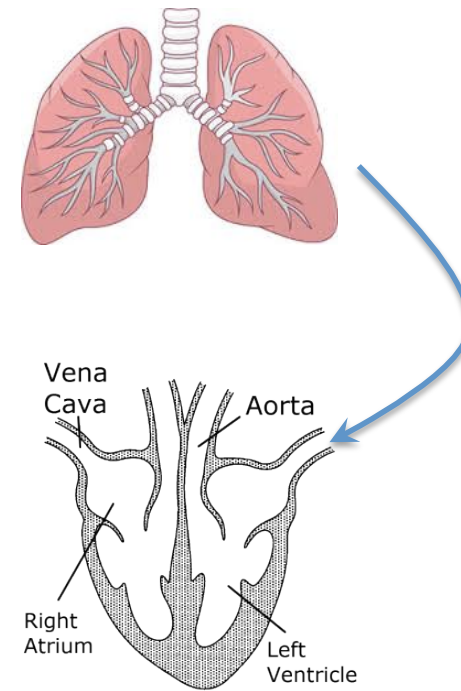
Instructions for teachers: the purpose of this task is to help students understand how blood flows around the body. It's really important students have a secure understanding of respiration and how this is happening in every cell in the body. So how do we get glucose and oxygen to these cells and carbon dioxide and excess water away? Introduce the three blood vessels and how they are adapted for their function. With any model spend time unpicking its limitations.

Which colour pipe would transport the most water in 1 minute?



Complete this diagram to show how blood moves around the body. Add:

1. arteries
2. veins
3. arrows to show direction of blood flow.
4. Show where oxygen and glucose enter the blood.
5. Show where carbon dioxide enters the blood.
6. Show where blood is under high and low pressure.
7. Where is the only vein that carries oxygenated blood?



Modeling blood vessels

A



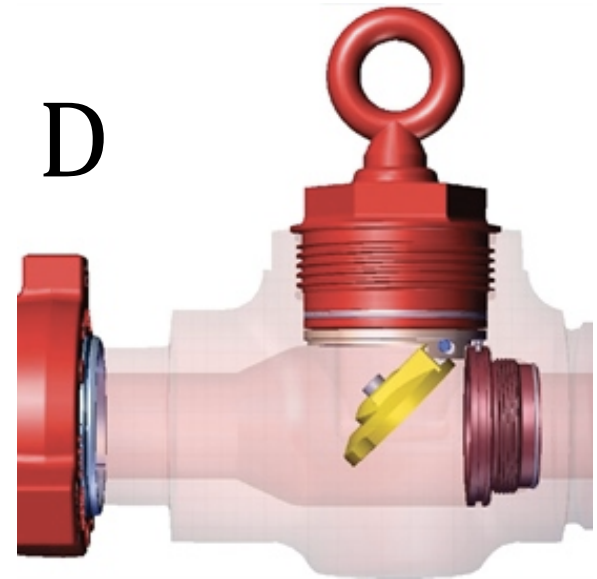
B



C



D



Which tube would you use to model an artery, vein and capillary?

Model	Lumen (wide or narrow)	Valves present (yes or no?)	Thickness of wall (thick or thin)	Elasticity of wall (rigid or elastic)	Allows small substances to move in and out (yes or no)
A					
B					
C					
D					

Thinking about the models

- Use your table to help explain which tube (A-D) **is best** to model (i) an artery (ii) a vein and (iii) a capillary. You must explain how the features of each tube are similar to the blood vessel it is representing.
- Are there better models that you could use?
- What are the limitations of each model?

You present!

Chose one tube and use this model to teach the class about either arteries, veins or capillaries.

