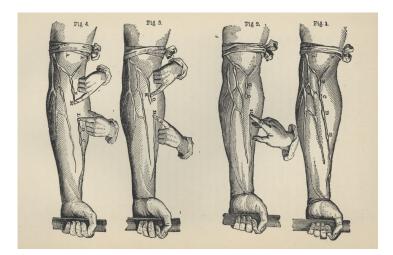
# William Harvey

William Harvey was a British doctor who became Physician to King James I and King Charles I. Harvey was a careful scientist who drew conclusions from methodical observation and experimentation. He realised that he could observe animal hearts in action and that his observations would also apply to humans. He discovered that blood was pumped round the body by the heart in a circular motion. He published his findings in his book 'On the motions of the heart and blood', 1628. His work disproved Galen's idea that there were two kinds of blood and they flowed through two separate systems of blood vessels.



Source A: An illustration from William Harvey's Motion of the Heart and Blood in Animals illustrating an experiment to show how blood is pumped around the body and that the valves in the veins will only allow the blood to flow in one direction.



An anatomical disquisition on the motion of the heart & blood in animals, 1906 Pyb L.iii.19, Pybus (Professor Frederick) Collection, Newcastle University Special Collections, GB 186

### Activities:

Study Source A carefully and read the text at the top of this page.

1. What did William Harvey describe in his book 'On the motions of the heart and blood'?

2. Why were Harvey's ideas so important?

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## Source B: Letter dedicating William Harvey's Motion of the Heart and Blood in Animals to King Charles I

To the moft Illuftrious and Invincible Monarch CHARLS King of Great Britain, France, and Ireland, Defender of the Faith.

Moft Gracious King,

He Heart of creatures is the foundation of life, the Prince of all, the Sun of their Microcosm, on which all vegetation does depend, from whence all vigor and Strength does flow. Likewife the King is the foundation of bis Kingdoms, and the Sun of bis Microcofm , the Heart of his Commonwealth, from whence all power and mercy proceeds. I was fo bold to offer to your Majefty those things which are written concerning the Heart, fo much the rather, because (according to the custom of this age ) all things hum me are according to the pattern of man, and most a 2

most things in a King according to that of the Heart; Therefore the knowledge of his own Heart cannot be unprofitable to a King, as being a divine refemblance of bis actions ( fo us'd they small things with great to compare, ) You may at least, best of Kings, being plac'd in the top of humane things, at the fame time contemplate the Principle of Mans Body, and the Image of your Kingly Power. Itherefore most humbly entreat, most gracious King, accept, according to your accustom'd bounty and clemency, thefe new things concerning the Heart, who are the new light of this age, and indeed the whole Heart of it, a Prince abounding in vertue and grace, to whom we acknowledge our thanks to be due, for any good that England receives, or any pleasure that our life enjoyes : Your Sacred Majefties moft devoted Servant, WILLIAM HARVET.

The Anatomical Exercises of Dr William Harvey concerning the motion of the Heart and Blood, 1673 Pyb F.iii.08, Pybus (Professor Frederick) Collection, Newcastle University Special Collections, GB 186 To the most illustrious and invincible monarch Charls King of Great Britain, France, and Ireland, Defender of the Faith. Most Gracious King.

The Heart of creatures is the foundation of life, the Prince of all, the Sun of their Microcosm, on which all vegetation does depend, from whence all vigor and strength does flow. Likewise, the King is the foundation of his Kingdomes, and the Sun of his microcosm, the heart of his Commonwealth, from whence all power and mercy proceeds. I was so bold to offer your Majesty those things which are written concerning the Heart, so much the rather, because (according to the custom of this age) all things humane and according to the pattern of man, and most things in King according to that of the Heart. Therefore the knowledge of his own Heart cannot be unprofitable to a King, as being a divine resemblance of his actions (so u'sd the small things with great to compare,) You may at least, best of Kings, being plac'd in the top of humane things, at the same time contemplate the Principle of Mans Body, and the Image of your Kingly Power. I therefore most humbly entreat, most gracious King, accept, according to your accusotom'd bounty and clemency, these new things concerning the Heart, who are the new light of this age ,and indeed the whole Heart of it, a Prince abounding in vertue and grace, to whom we acknowledge our thanks to be due, for any good that England receives, or any pleasure that our life enjoyes:

Your Sacred majesties Most devoted Servant,

WILLIAM HARVEY

### Activities:

Study Source B carefully and read the text overleaf

- 1. Why do you think that William Harvey dedicated his work to King Charles I?
- 2. What are 'these new things concerning the Heart' which Harvey refers to?
- 3. Pick out at least two flattering phrases which Harvey uses to describe King Charles I.
- 4. Why do you think royal patronage (support/ approval) was so important to Harvey? Pick out any parts of the text that support your answer.

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