



## The Art of Anatomy- Albrecht Durer

### Summary

For thousands of years, the human body has been observed, copied and examined in order to try and find answers to questions, posed by scientists and artists, about who we are and what we are made of.

From ancient civilisations such as the Greeks, whose great thinkers and artists examined the mechanics and proportions of the body, to the Renaissance artists who explored the science of the body through to recent times when the fascination has been with dissection or with the flesh of the body itself, the human body has continued to be a regular feature of art. Whether created for educational purposes or simply for artistic beauty, drawings, paintings and sculptures depicting the human body have continued to attract interest and discussion.

Albrecht Dürer (1471–1528) was a German painter, engraver and mathematician. He is best known for making master prints using woodcut, engraving and etching techniques. Dürer often made his prints in a series based on a single subject. His prints made him famous across Europe before the age of 30 and he is widely believed to be the greatest Northern European artist of the Renaissance period and possibly the greatest printmaker of all time.

Dürer was particularly admired for his skills of observation and his meticulous approach to perspective and proportion which he demonstrated in many works that focused on the anatomy of humans and animals.



### Artists & Artisans:

Artists and designers well known for depicting the human body include:

- Phidias (c. 480-430 BCE) Ancient Greek sculptor and painter
- Myron of Eleutherae (c. 480-440 BCE) Ancient Greek sculptor
- Leonardo da Vinci (1452-1519) Italian painter and sculptor
- Albrecht Dürer (1471-1528) German painter and printmaker
- Andreas Vesalius (1514-64) Belgian anatomist and physician

### Vocabulary:

**mechanics:** the working parts of the body enabling movement  
**proportions:** dimensions and measurements or size  
**dissection:** the cutting up of the body to examine scientifically  
**anatomist:** an expert in the study of the bodies of people or animals  
**physician:** a doctor of medicine  
**acquired:** learned and developed through experience  
**poise:** physical balance and stability  
**wireframes:** visual representations of a structure  
**master:** an original copy used to produce other copies  
**meticulous:** done very carefully with attention to detail  
**volume:** the amount of space that an object occupies  
**foreshortening:** depicting something shorter than its actual length  
**topography:** depicting physical shapes and features  
**contours:** shapes or surfaces, often of curving forms  
**gouges:** tools with a curved blade  
**chisels:** tools with long blades and sharp edges  
**brayer:** a small roller for spreading ink by hand  
**printing press:** a machine used for printing

<p><b>Colour Theory:</b></p>	<p>N/A</p>	<p><b>Styles and Periods:</b></p>	<p>Apart from the European Renaissance period, no culture in human history has contributed more to the art of anatomy than the Ancient Greeks. They advanced their knowledge of anatomy and acquired increasingly sophisticated sculptural skills. They were particularly concerned with proportion, poise and creating a perfect-looking human body, and used bronze and marble to create some of the great masterpieces of world art. The image shown was the masterpiece sculpture created by Myron called The Discobolus (The Discus Thrower).</p> 
<p><b>Media &amp; Materials:</b></p>	<p>Dürer is credited for the invention of ray tracing in 1532. This is now used in computer graphics to produce 3D computerised visual images. Ray tracing involves tracing a path from an imaginary eye through each pixel in a virtual screen and working out the colour of the object visible through it.</p> <p>Pencil sketches of drawing and painting hands Explore different printing techniques</p>	<p><b>Techniques:</b></p>	<p>A useful technique for drawing people is the ball-and-socket approach:</p> <ul style="list-style-type: none"> <li>• Sketch the wireframes and positions for the person. This is a kind of skeleton using oval shapes where there are bends.</li> <li>• Sketch the body shapes needed to build the bodies.</li> <li>• Sketch the details for the faces and other features.</li> <li>• Refine the sketch using a smaller tipped pencil and smoothing out straight lines to be more curved and human looking.</li> </ul>  <p>Dürer’s woodcut printing technique involved carving an image into a block of wood. Only the lines and shapes of the drawn design are left standing; all other areas of the wood are carefully cut out with sharp tools such as gouges, chisels and knives. Ink is then applied to the raised surface by dabbing or rolling with a brayer. This image is then transferred onto a sheet of paper by rubbing it against the inked surface of the block or by using a printing press. The image on the block appears in reverse on the paper.</p>
<p><b>Emotions:</b></p>	<p>N/A</p>	<p><b>Process:</b></p>	<p>Albrecht Dürer was hugely influenced by Leonardo da Vinci, which is particularly apparent in his Four Books on Human Proportions (see extract above) produced between 1532 and 1534. In these books, Dürer investigated ideal human</p>

			proportions which showed the very technical approach he used towards anatomy. He used his mathematical abilities to simplify the complex structure of the human body into sections using shapes such as spheres, cylinders, cones, cubes and pyramids. He also used the science of measuring volume to make drawing easier by solving the problem of foreshortening.
<b>Visual Language:</b>	Dürer's Praying Hands, completed in 1508, has been universally admired because of the sophisticated realism and the expressive detail of the hand's topography. He used finely applied brushstrokes, outlining the contours and filling in the darkest areas with grey wash and the lighter areas with opaque white.	<b>Effects:</b>	N/A
<b>Key Local Links:</b>	Explore the work of local artists who use people as their inspiration eg the work of Whitehaven born Michael Douglas Richards who paints portraits and famously painted NHS workers during lockdown.	<b>Curriculum Links, Prior and future learning:</b>	Links with Human body science topic. Links with Skellig and the artist William Blake who is mentioned in this text. This unit of work builds on all drawing and sketching



	Basic	Advancing	Deep
Artists & Artisans	<p>Name two significant periods in history when artists have been particularly interested in human anatomy.</p> <p>Give examples of why artists may be interested in human anatomy.</p> <p>Name two famous Ancient Greek sculptors.</p> <p>How did Andreas Vesalius use the skills of an artist in his work?</p>	<p>Summarise the reasons why artistic representation of human anatomy has been considered important throughout history.</p> <p>Find out more about the art of the Ancient Greek sculptor Phidias.</p>	<p>Always, sometimes, never? Human anatomy is depicted artistically to show the beauty of the human body.</p> <p>Investigate Leonardo da Vinci's Vitruvian Man drawing.</p>
Techniques	<p>What is meant by the artistic use of the term 'wireframe'?</p> <p>Why would you draw oval shapes when using this technique?</p> <p>Copy the four listed processes for the ball-and-socket technique to draw an example of the human body.</p>	<p>Develop your representations of the human body using the ball-and-socket technique.</p> <p>Evaluate your drawings with a friend to discuss the merits and possible weaknesses of this technique.</p>	<p>Investigate and critique the use of the ball-and-socket technique through depicting the human body in a series of different action poses.</p>
Styles & Periods	<p>Which two things helped Ancient Greek sculptors to get better at their art?</p> <p>What were Ancient Greek sculptors particularly concerned with when sculpting the human body?</p> <p>Describe the features of Myron's masterpiece sculpture.</p>	<p>Compare and contrast the work of Ancient Greek sculptors and Renaissance artists to discover how both were important in the development of the art of anatomy.</p> <p>Explain why you think Ancient Greek sculptors attempted to depict a perfect human body.</p>	<p>In which ways are the sculptures of Auguste Rodin, studied within 'The power of love' topic, similar to the work of Ancient Greek sculptors?</p> <p>Justify why you think Myron's The Discobolus is considered a masterpiece and typical of sculptures of the human body during this period of history.</p>



	Basic	Advancing	Deep
<b>Visual Language</b>	<p>Why has Dürer's Praying Hands been admired by so many people?</p> <p>Give examples of how he made the hands so realistic and detailed.</p> <p>Copy Dürer's level of detail when drawing and painting your own hands.</p>	<p>Explain how Dürer's Praying Hands have topographical detail.</p>	<p>Investigate how Dürer's use of grey wash and opaque white colours compares and contrasts with how another artist you have studied has used their colour choices to add to the expressive detail of their work.</p>
<b>Process</b>	<p>Give examples of how Dürer became well known for his art.</p> <p>What aspect of his artistic talent did he demonstrate in his Four Books on Human Proportions?</p> <p>How did he use his mathematical skills when drawing human anatomy?</p>	<p>Experiment with Dürer's use of mathematical shapes to sketch your own examples of a human body. Discuss with a friend the usefulness of this process.</p>	<p>What are the connections between the works of Leonardo da Vinci and the artistic styles of Albrecht Dürer?</p>
<b>Techniques</b>	<p>List some of the materials and tools that Dürer would have used when carrying out his woodcutting technique.</p> <p>What are the two ways in which the ink could be transferred?</p> <p>Copy Dürer's printing technique using a soft wood and printing ink to produce an anatomical image.</p>	<p>Summarise the processes undertaken by an artist using the woodcut printing technique.</p>	<p>Research the similarities and differences between the printing techniques of woodcutting, etching and engraving.</p>
<b>Media &amp; Materials</b>	<p>Which modern-day computing process is Dürer credited for inventing?</p> <p>Why do computer graphics designers use ray tracing?</p> <p>How does ray tracing help graphic designers to choose colour?</p>	<p>Find out more about how computer graphics designers use the ideas of Dürer's ray tracing that he wrote about in 1532.</p>	<p>In which ways does Dürer's legacy continue to influence modern-day artists?</p>