ROYAL COLLECTION TRUST

SCHOOL RESOURCES

Leonardo da Vinci

A life in drawing

LEONARDO 500

From anatomical drawings to botanical illustrations, maps to mechanical engineering plans, pictographs to artistic sketches and so much more, Leonardo's drawings give us a glimpse into his endlessly enquiring mind. His fascination with the world around him is what continues to inspire us 500 years after his death.

This resource pack, developed through consultation with teachers, contains a range of activities, useful information and suggestions to enable you to use Leonardo's ideas and works across diverse subjects. Primary school activities focus on STEAM subjects and the interplay between them: science, technology, engineering, art and maths. Secondary school activities use Leonardo's art and creative ideas to explore scientific topics.

Activities have been inspired by the remarkable collection of over 550 drawings by Leonardo in the Royal Collection. Additional resources including films, interactive games and a timeline can be found on Royal Collection Trust's website – *www.rct.uk* – and are signposted throughout the pack.

Activities have been designed to be compatible with both the National Curriculum for England and Wales and the Curriculum for Excellence in Scotland. You can use the resources however works best for you and your pupils – they promote a 'growth mindset' approach to learning, gently encouraging your students to approach problems from different angles and to find creative solutions.

The Leonardo 500 school resources give schools access to:

- Interviews with Martin Clayton, Head of Prints and Drawings at Royal Collection Trust.
- High quality 'inspiration drawings' to use in the classroom, either on an interactive whiteboard or printed out.
- Key facts about Leonardo da Vinci.
- Online activities and resources for the classroom including a *timeline.*
- Direct links to the drawings by Leonardo and other works in the Royal Collection which are fully accessible online. Every drawing has a 6-digit RCIN number (Royal Collection Inventory Number). To find out more about these Leonardo drawings, which you can also print out, go to Explore the Collection and type the RCIN number into the search box.
- Signposting to further resources includes the multi-award winning *Leonardo da Vinci: Anatomy App.* This includes an in-built mirror and translates his notes into English. This is rated suitable for ages 12 and above and is available on iTunes only.

How to use these resources

We suggest different ways that schools can dip in and out of the activities or follow them all, such as during an off-timetable themed week for one class or year group. Another possibility is to organise a 'wow' or 'bang' day for the whole school, covering several subjects from art to science.

These are suggested activities – we would love to hear about ones you have tried or adapted through our social media channels.

The activity suggestions link with topics covered in the curriculum, and so other textbooks, websites or resources linked with those can be used to supplement the information contained in this pack.

twitter.com/RCT

facebook.com/royalcollectiontrust

instagram.com/royalcollectiontrust

vimeo.com/royalcollectiontrust

rct.uk/collection

Primary resources

	National Curriculum, England & Wales	Curriculum for Excellence, Scotland
Head to toe: Bodies in proportion Investigate Leonardo's *Vitruvian Man* and body measurements. Pupils also find links between Leonardo and themselves.	KS1/2	First/ Second
Exploring plants Step-by-step lily dissection, recording as Leonardo did. Pupils sign their masterpiece backwards too!	KS1/2	First/ Second
Inside out: What's inside my hand? Make medical art in the classroom! Pupils paint the inside of their hand on the outside with help from Leonardo.	KS2	Second
Drawing expressions Leonardo's show a range of facial expressions, so let's make some masks!	KS1	First
Investigating inventions Three investigative teams work on themes connected to Leonardo, flight and machines, then feed back their findings.	KS2	Second
Artist's apprentice Invite students to become Leonardo's apprentices and complete his bronze horse sculpture for the future Duke of Milan.	KS2	Second
Leonardo: Celebrate and share Launch your own mini museum or Leonardo studio to show-off class achievements. Invite families to enjoy their work.	KS1/2	First/ Second

Secondary resources

	National Curriculum, England & Wales	Curriculum for Excellence, Scotland
Ready, aim, fire! Explosive engineering	KS3	Third/ Fourth
Brilliant bodies	KS3	Third/ Fourth
Thinking boats: Design and pitch	KS3	Third/ Fourth

Choosing activities

The Leonardo 500 school resources provide a good balance across Leonardo's achievements and skills.

In these resources we have used symbols of the human anatomy to demonstrate Leonardo's strengths.

The title page of each activity has the relevant icons to help you choose the activity that best suits the needs and interests of your class; whether you are looking for your class to develop their creative, making skills or brush up on their curious questions.

Full curriculum links are also provided in a separate section.

Leonardo the ...

INNOVATOR & THINKER		Skilled in many areas and keen to think through ideas, some of his drawings and designs have striking similarities to inventions that came hundreds of years later.
OBSERVER		Always looking for evidence and recording the details of new information and ideas. He observed the world in the round, not restricting himself to looking at just plants or people, but also understanding anatomy, map-making and more.
LEARNER		He was a great student under Verrocchio, his teacher. He was a listening apprentice, and later taught other artists.
CREATOR		Communicating his ideas on paper and buildings as an artist and architect.
PASSIONATE WORKER		With a passion for learning and love of nature, he built an impressive body of work. He also challenged ideas.
PIONEER		Exploring and experiencing first-hand. As an engineer, he surveyed land and made useful maps.

Leonardo da Vinci (1452–1519)

is one of the most famous artists in the history of the world. Whilst only a small number of his paintings survive, including the *Mona Lisa* and the *Last Supper*, many of his exquisite drawings can still be enjoyed. Leonardo's drawings were not designed for to be seen by anyone other than Leonardo – they were for his personal use as he worked through and tested ideas. Today they provide a window into the life and mind of a genius.

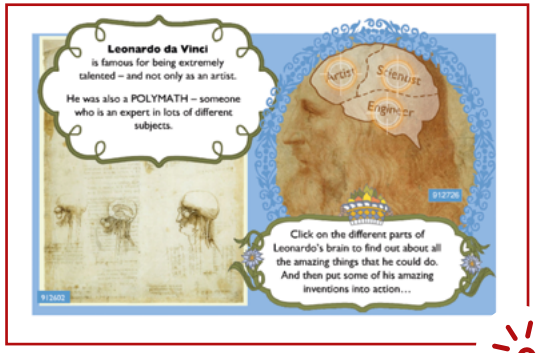
Renaissance Man

During the Italian Renaissance, artists wanted to draw things as they really were. Artists competed for work and Leonardo worked alongside other masters such as Michelangelo. You can ask your pupils to step back in time and imagine life without cameras, telephones or the internet. In the mid-fifteenth century, if artists wanted to capture something, they would have to make extensive notes and detailed drawings.

Leonardo is called a polymath ... but what is a polymath?

A polymath means someone who is expert in lots of different subjects. It doesn't mean he was just good at maths! Martin Clayton, Head of Prints and Drawings at the Royal Collection Trust, explains what a polymath is in this short clip *Leonardo is often described as a polymath. What is a polymath?*

You can also use this *interactive* to explain what a polymath is in class.



KEY FACTS

Leonardo's name, life and locations

Use this *online timeline* to put his drawings in historical context.

Born on 18 Nov **1452** near the Tuscan hill-town of Vinci. This is why he is known as Leonardo da Vinci – Vinci wasn't his surname, it was his hometown.

He was the illegitimate son of a lawyer and a peasant girl, and he grew up with his paternal grandparents until he was 12 years old; after this it is thought that he moved to Florence.

As a boy, he probably attended the local town school where he would have learnt to read and write, and studied arithmetic useful to a merchant or craftsman

By **1472**, when he was 20, he was listed as a member of a painter's fraternity – like a society – called the Company of St Luke.

Around **1482** Leonardo moved to Milan and by the end of the 1480s he was the court artist to Ludovico Sforza, who later became the Duke of Milan. Under Sforza's patronage he was commissioned to create a great equestrian monument, and to paint the *Last Supper*. During this time he also took a greater interest in military designs and scientific drawings

In **1502** he became military architect and engineer to Cesare Borgia, son of Pope Alexander VI and commander of the papal army.

In **1503** Leonardo was making maps for the Florentine government, and was working on the *Mona Lisa* and other great artworks.

From **1506** to **1508** he travelled between Milan and Florence, and in **1507** Leonardo undertook a dissection of an old man. He would carry out more dissections over the next five years, helping him as he studied human anatomy.

In **1513** he went to work for Giuliano de Medici, brother of Pope Leo X, and then in **1516** he joined the court of King Francis I of France as painter, engineer and architect to the king.

On 2 May **1519**, Leonardo died.

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