# The Whipple Museum of the **History of Science**

The Whipple Museum is the home of an internationally significant collection of scientific instruments, apparatus, models, pictures, prints, photographs, books and other material related to the history of science.

The museum's galleries cover astronomy, navigation, teaching and learning, measurement, calculating and more including some of the more curious objects relating to the history of science.

The Whipple Museum is part of the University of Cambridge Department of History and Philosophy of Science.

# **Dementia Compass**

This guide has been created through the Portals to the World programme, a partnership between the University of Cambridge Museums and Dementia Compass.

Dementia Compass is a social venture with over a decade of experience supporting individuals with Alzheimer's or other dementias and their families.

Dementia Compass builds and provides resources that reduce the impacts of dementia and to help people stay connected with who and what matters.

For more information visit the **Dementia Compass** Website: www.dementiacompass.com Phone 07876 350 638 Email hello@dementiacompass.com

MUSEUMS

& BOTANIC GARDEN

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#### Why a museum walk?

Visiting a museum is a great opportunity to meet friends and have some gentle exercise as you explore the collections.

#### How long will it take?

With time to stop and look the walk should take you approximately 30 minutes.

#### How far is it?

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It's approximately 300 steps.

### Are there places to sit?

There is seating in our Main Gallery, Learning Gallery, and Upper Galleries.

#### What access support is there?

The museum is accessible for wheelchair users and has a wheelchair for visitors' use.

There is an accessible toilet for all genders on the ground floor of the museum.

Assistance dogs are welcome in the museum. Large print labels are used for our Special Exhibition.

The museum has step-free access via the Pembroke Arch entrance on the New Museums Site.

#### Whipple Museum of the History of Science **Free School Lane** Cambridge, CB2 3RH

Contact us Email: visitor.services@maa.cam.ac.uk 01223 333516



# Museum Walk

# The Art of Motion

How moving mechanisms can captivate, engage and teach us.



"Consul" The Educated Monkey, simple multiplication device patented in Britain 1916 and 1918, tin

People have always been fascinated by watching things that move and by being able to make something move themselves.

Many of the objects in the Whipple Museum use this fascination with movement to help explain or demonstrate scientific concepts. This walk will showcase objects designed to explain the universe, teach basic maths and create entertaining effects with optical illusions.



### The St. Albans clock (replica 1990s, original 1327-1336)

This is a copy of the clock made for St. Albans Abbey, Hertfordshire about 680 years ago. The original clock was made by Richard of Wallingford, the head of the Abbey.

Clocks like this had two main purposes, first, they showed how time moves and second, they helped explain ideas about the universe, planets, and stars.

This clock was very advanced for its time, but it still shows the sun moving around the Farth. We now know that this is the other way round, i.e. the Earth moves around the Sun.

**Grand Orrery** 1750

An orrery is a mechanical model of the solar system. It shows how the planets move around the sun and their relative positions to each other.

By turning a crank or handle, the orrery makes the planets move at the correct speeds, helping people see how the solar system works.

Built 274 years ago this orrery was most probably a rich man's toy - the owner could make the solar system move at his command, while also showing off to friends that he was up to date with the latest science.













A zoetrope is an early device that creates the illusion of images moving. The word zoetrope comes from the Greek language and means 'living, turning thing'.

To make a zoetrope work, you place a strip of pictures that show a sequence of movement, inside the drum and spin it. When you look through the slots, the images combine together, and you see a short animation (movement sequence.) The slots stop the pictures from blurring.

This modern replica is one of the most popular items in the Whipple Museum.



# **Consul the Educated** Monkey

(patented in Britain 1916 and 1918)

Consul is a mathematical calculator designed to make learning more fun. Consul is mechanical i.e. it's made of gears and levers. If you point Consul's feet at two numbers, the number between his hands tells you what you will get if you multiply them together.

Consul was based on a real performing chimpanzee (so an ape, not actually a monkey) who toured America in the early 1900s.

As well as giving a practical answer to maths questions, mechanical calculators like this one showed the unchangeable nature of mathematical facts - the machine never makes a mistake because the answer is in the same place every time.