

Worksheets for Schools

Timeline sorting cards – lens based discoveries

Print out, laminate and cut out the set of cards below showing historical 'lens based' optical experimenters.

You can then get the students to arrange them into the correct groups of three, linking the experimenter with the correct 'when' and 'what' cards for each experimenter's unique discovery.

<p>Experimenter</p> <hr/>
<p><i>Unknown</i></p>
<p>Activity 4.1</p>

<p>Experimenter</p> <hr/>
<p><i>Emperor Nero</i></p>
<p>Activity 4.1</p>

<p>When</p> <hr/>
<p><i>c750 BCE</i></p>
<p>Activity 4.1</p>

<p>When</p> <hr/>
<p><i>37 - 68</i></p>
<p>Activity 4.1</p>

<p>Unique discovery</p> <hr/>
<p>A piece of rock crystal found in Crete. Probably used to make fires, by concentrating sunlight, or as a magnifying glass.</p>
<p>Activity 4.1</p>

<p>Unique discovery</p> <hr/>
<p>Allegedly used a polished emerald to assist with viewing gladiators.</p>
<p>Activity 4.1</p>

Experimenter

Abbas Ibn Firnas

Activity 4.1

Experimenter

Abu Alhazen

Activity 4.1

When

810 - 887

Activity 4.1

When

965 - 1040

Activity 4.1

Unique discovery

Process discovered for converting sand into glass to make 'reading stones'.

Activity 4.1

Unique discovery

Publishes the seven volume 'Book of Optics' which for the first time shows an image of a convex lens.

Activity 4.1

Experimenter

Anton van Leeuwenhoek

Activity 4.1

Experimenter

Hans Lippershey

Activity 4.1

When

1632 - 1723

Activity 4.1

When

1570 - 1619

Activity 4.1

Unique discovery

Invented the first microscope and was the first person to see bacteria and microorganisms in units of water.

Activity 4.1

Unique discovery

Invented the first 'telescope' instrument.

Activity 4.1

Experimenter

Galileo Galilei

Activity 4.1

Experimenter

Isaac Newton

Activity 4.1

When

1610

Activity 4.1

When

1668

Activity 4.1

Unique discovery

Discovered the moons of Jupiter using a telescope.

Activity 4.1

Unique discovery

Built the world's first practical reflecting telescope.

Activity 4.1

Experimenter

Giovanni Canaletto

Activity 4.1

Experimenter

Nicéphore Niépce

Activity 4.1

When

c1740

Activity 4.1

When

c1826

Activity 4.1

Unique discovery

Artist who used a camera obscura to create some of his paintings.

Activity 4.1

Unique discovery

Used a camera obscura to create the earliest surviving photograph.

Activity 4.1

Experimenter

William Henry Fox Talbot

Activity 4.1

Experimenter

James Clark Maxwell

Activity 4.1

When

c1833

Activity 4.1

When

1861

Activity 4.1

Unique discovery

Used a camera obscura which gave him the idea for his method of photography.

Activity 4.1

Unique discovery

Demonstrated that electric and magnetic fields travel through space as waves moving at the speed of light and demonstrated the first colour photograph.

Activity 4.1

1 c750 BCE

2 37 - 68

3 810 - 887

4 965 - 1040

5 1632 - 1723

6 1570 - 1619

7 1610

8 1668

9 c1740

10 c1826

11 c1833

12 1861