

Worksheets for Schools

Timeline card sorting

Print out, laminate and cut out the set of cards below showing historical 'hole 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.



<u>Experimenter</u>
<i>Stonehenge</i>
Activity 3.1

<u>Experimenter</u>
<i>Mo-tzu</i>
Activity 3.1

<u>When</u>
<i>3000 BCE</i>
Activity 3.1

<u>When</u>
<i>468 - 391 BCE</i>
Activity 3.1

<u>Unique discovery</u>
A calendar showing the position of the Sun at summer and winter equinox.
Activity 3.1

<u>Unique discovery</u>
Light travels in the same way as an arrow is shot from a bow.
Activity 3.1

Experimenter

Aristotle

Activity 3.1

Experimenter

Alhazan

Activity 3.1

When

384 - 322 BCE

Activity 3.1

When

965 - 1040

Activity 3.1

Unique discovery

Why the Sun still appears round when projected through a square hole.

Activity 3.1

Unique discovery

Light creates an inverted image when travelling through a hole.

Activity 3.1

Experimenter

Filippo Brunelleschi

Activity 3.1

Experimenter

Leon Batista Alberti

Activity 3.1

When

1377 - 1446

Activity 3.1

When

1404 - 1472

Activity 3.1

Unique discovery

Invented a system of a hole and a mirror to draw in perspective.

Activity 3.1

Unique discovery

Invented Alberti's Intersector - a cotton grid to draw in perspective.

Activity 3.1

Experimenter

Leonardo Da Vinci

Activity 3.1

Experimenter

Albrecht Durer

Activity 3.1

When

1452 - 1519

Activity 3.1

When

1471 - 1528

Activity 3.1

Unique discovery

Drew the first stretched images (anamorphs) as well as 'The last supper' where the vanishing point is in Christ's right eye.

Activity 3.1

Unique discovery

Learned the secrets of perspective and took the skill from Italy to Germany.

Activity 3.1

Experimenter

Pope Gregory 13th

Activity 3.1

Experimenter

Tycho Brahe

Activity 3.1

When

1502 - 1585

Activity 3.1

When

1546 - 1601

Activity 3.1

Unique discovery

In 1582 removed October the 5th - 15th,
making the year ten days shorter.

Activity 3.1

Unique discovery

Studied solar pinhole images through a
hole in his studio (and had a metal nose!)

Activity 3.1

Experimenter

Johannes Kepler

Activity 3.1

Experimenter

Isaac Newton

Activity 3.1

When

1571 - 1630

Activity 3.1

When

1642 - 1727

Activity 3.1

Unique discovery

Studied light through a hole and used the phrase Camera Obscura (Latin for 'dark chamber')

Activity 3.1

Unique discovery

Used the shadow of a human hair projected through a pinhole to discover and study diffraction.

Activity 3.1

Place each correct card pile on this timeline sheet.

1

3000 BCE

2

468 - 391 BCE

3

384 - 322 BCE

4

965 - 1040

5

1377 - 1446

6

1404 - 1472

7

1452 - 1519

8

1471 - 1528

9

1502 - 1585

10

1546 - 1601

11

1571 - 1630

12

1642 - 1727