# Activity 1: Answers

## Task 1-Timeline of events

| Years | People and events | Descriptions of people and events |
|---|---|---|
| 1347 | The Black Death | Many physicians blamed the stars and planets for this occurrence<br><br>The result of many different factors including a boom in worldwide trade, and a lack of sewers, rubbish collections, and sanitation in medieval towns |
| 1448 | Joannes Gutenberg invents the printing press | Made the Renaissance not just an Italian phenomenon but a European phenomenon by making it easier, cheaper, and faster to pass on written knowledge<br><br>This allowed for the development of the idea of 'fact' – something that can be checked and tested |
| 1473 – 1543 | Nicholas Copernicus | Developed a helio-centric model of the universe which was different to Ptolemy's classical concept of the universe centred on the Earth which agreed with the Bible |
| 1492 | Christopher Columbus discovers North America | Thanks to the newly invented printing press, news of this discovery travelled much farther and faster than a similar voyage by Marco Polo, just centuries before |
| 1517 | The Protestant Reformation takes hold | Enabled by the invention of the printing press, this movement meant the Church no longer had a monopoly on truth |
| 1546 – 1601 | Tycho Brahe | Observed a supernova and a comet<br><br>Contradicted the idea that the heavens never changed<br><br>Made meticulous and very accurate measurements of the movements of the planets and stars |
| 1564 – 1642 | Galileo Galilei | Supported the Copernican theory of the helio-centric universe<br><br>Was accused of heresy…twice! |
| 1571 – 1630 | Johannes Kepler | Defended the Copernican model and inherited Tycho's data<br><br>Determined the 3 Laws of Planetary Motion - which were later used by Newton |
| 1590 | The microscope is invented | Although today it is widely used in health research, this instrument was not appreciated as a useful scientific tool until centuries later |
| 1608 | The first telescope invented in the Netherlands | Helped make "instruments" an important part of observing nature<br><br>Developed by craftsmen, not scientists |
| 1609 | The telescope is improved by Galileo | Improved Galileo's salary from the University of Padua |
| 1610 | *The Starry Messenger* is Published | Helped Galileo publicise his case for patronage and made him well-known throughout Europe<br><br>Announced Galileo's discovery of 4 moons of Jupiter using his improved telescope |

**Task 2 Impact of Inventions**

**a) Using your timeline, discuss the impact of the invention of the printing press on later events.**

You could have mentioned any/all of these:

- Allowed Renaissance ideas to spread throughout Europe (instead of just staying in Italy)

- Enabled the development of the idea of 'fact' – something that can be checked and tested

- Enabled the Protestant reformation to challenge the Catholic church's monopoly on truth

- Ideas and discoveries could spread faster and easier and build on each other (e.g. Christopher Columbus' voyage and Galileo finding out about and improving the printing press only about a year after it was first invented in the Netherlands)

**b) How do you think the scientific revolution would have been different if the printing press had been invented _after_ the telescope?**

You could have mentioned any/all of these:

- Connect printing press to the quick uptake of the telescope (Galileo learns about it and improves it one year after it is invented – perhaps he wouldn't have heard about it until much later).

- Connect the importance of the telescope to Galileo's observational work and publications – this would have been more difficult/impossible to do without knowledge of the telescope

- Connect the idea of 'facts' as a key tenant of science today and how this was influenced by the invention of the printing press and faster, easier spread of uniform knowledge

- Pace of Scientific Reformation might have been different, less collaborative/cumulative