

Chapter questions on Bynum's
A Little History of Science

ACN

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- 3 Atoms and the void
- 4 The father of medicine: Hippocrates
- 5 'The Master of Those Who Know': Aristotle
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- 9 Searching for the Philosopher's Stone
- 10 Uncovering the Human Body
- 11 Where is the Centre of the Universe?
- 12 Galileo

1. Where do some tales suggest that Galileo performed experiments dropping balls?

2. What did Galileo realize about when a ten-pound and a one-pound ball would hit the ground?
3. What did Galileo study at Pisa before he became interested in maths and physics?
4. Which religious organization did Galileo come into conflict with because of his scientific thinkings?
5. What relationship did Galileo find between the distance a ball travels rolling down a slope and the time it has been rolling?
6. Which Greek philosopher's thinking did Galileo's work update?
7. Which kind of instrument (its name means 'to see far') did Galileo become interested in?
8. What did Galileo see when he looked at Jupiter?
9. Which theory of Copernicus' about how the planets move seemed to be supported by Galileo's new evidence?
10. What happened to Galileo—first in Siena and later near Florence—after his trial in 1633?

13 Round and Round: Harvey

14 Knowledge is Power: Bacon and Descartes

15 The 'New Chemistry'

1. What kind of paper turns red in acids and blue in alkalis?
2. Where did Robert Boyle go to school?
3. How did Boyle show that Aristotle's theory of four elements was wrong?
4. What did Boyle first describe as 'not being made of other bodies, or of one another'?
5. Boyle was a key founding member of a scientific club. What is it called?
6. What instrument was used in the 1660s to see small boxy structures in thin sections of cork?
7. What mechanical device did Boyle use to investigate the characteristics of many gases?
8. What did Descartes, amongst others, think about a vacuum?
9. What two properties of gases did Boyle link together in *Boyle's law*?
10. Which scientist worked with Boyle on combustion, and also thought about springs, fossils and light?

16 What goes up...: Newton

1. What language could Isaac Newton write as easily as English?
2. Which university did Isaac Newton attend in the 1660s?
3. Newton used a ‘method of fluxions’ which he developed. What does ‘flux’ mean?
4. What did Newton use to break up light into colours?
5. Newton saw further than scientists had previously. What analogy did he use to describe this?
6. Which scientific society was Newton a Fellow of (and later on, President)?
7. Name one of Newton’s branches of investigation did Newton keep secret from his university.
8. Which astronomer (who has a comet named after him) visited Newton and discussed the shapes that orbiting objects make?
9. Which three famous laws were first published in the *Principia*?
10. Where did Newton live for the last 30 years of his life, and what job did he do for the government?

17 Bright Sparks

1. What was the kind of stone which was found to attract iron called?
2. What happens if you rub amber very hard?
3. In what object was electricity first able to be stored?
4. Who linked hands and became the first group of ten people to get an electric shock?
5. Give one thing invented by Benjamin Franklin.
6. What did Franklin do in a lightning storm?
7. How are buildings protected from catching fire if struck by lightning?
8. Which unit is named after André-Marie Ampère?
9. What common modern device did Volta play a big part in developing?
10. What twitched when Galvani connected it to electricity?

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