

Past-paper walk-through

The Scientific Revolution ■ 4.2

eXercise

Questions in this set

- 2025 Set 2 Q1
- 2024 Set 1 Q1
- 2023 Set 1 Q1

Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- **//** separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = “or words to that effect” – the wording need not match.

Question 1

2025 Set 2 ■ Q1

It is presented here in a format optimized for teacher and student use in the classroom.

3 “The Paris department store [of the mid-1800s] was preeminently the ‘world of women,’ where women were encouraged to find their life’s meaning in consumption and where they increasingly found a role in selling as well. Thus, the department store played a highly significant role in the evolution both of contemporary society and of women’s place in that society. The buyer’s desire for certain items was created through the tactics of large-scale retailing: publicity [advertising], display of goods, and low prices. The low markup of the large stores allowed lower prices and helped attract crowds of customers from throughout the city. The department stores could not simply depend on the traditional bourgeois clientele of smaller shops and so had to attract customers from among the petite bourgeoisie [lower middle class] by catering to their budgets and their passion for spending. Thus, the department stores brought

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increasing numbers of people into contact with modern consumer society.” Source: Theresa M. McBride, American historian, scholarly article, 1978

Respond to parts A, B, and C.

- (a)** Describe the main argument made by the historian in the excerpt.
- (b)** Describe a relevant historical context for the development discussed in the excerpt.
- (c)** Explain one way that the development discussed in the excerpt affected European society.

Solution 1

(a)

Mark scheme

- Describe the main argument made by the historian in the excerpt. (1 point)
— accept any: The invention of the department store in 1800s France offered new roles for women.; Department stores catered to a wider array of customers than traditional shops and introduced more people to consumerism.; Department stores invented new techniques of selling merchandise.

Solution 1

(b) Mark scheme

- Describe a relevant historical context for the development discussed in the excerpt. (1 point) — accept any: Paris and other cities were growing rapidly at the time and were increasingly able to support large retail stores.; Increasing wages of working-class and middle-class French people created more demand for a wider variety of goods.; The expansion of industry during the Second Industrial Revolution allowed for the production of a wider variety of consumer goods.; Europeans expanded their colonial empires in search of raw materials for manufacturing and new markets for their manufactured goods.; Women in the middle classes did not typically work outside the home in the mid- 1800s and the Cult of Domesticity encouraged them to spend their time shopping and

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maintaining their home.; Women in the lower classes frequently did work outside the home and department stores became a place where they sought employment.

Solution 1

(c) Mark scheme

- Explain one way that the development discussed in the excerpt affected European society. (1 point) — accept any: Women's negative experiences in the workforce encouraged the political movement for women to obtain greater rights and economic opportunities.; The expansion of consumer goods marketed to women led to an even greater demand for such goods, particularly labor-saving devices for the home.; Women gained new job opportunities since large department stores and other services needed lots of cheap labor as clerks and salespeople, eventually leading to other opportunities for women in management.; Middle-class women were encouraged to consume more and spend more since department stores and other consumer institutions depended on a large volume of sales and expected

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continued growth.; In the long term, the aggressive tactics of large retailers led to critiques of and a reaction against excessive consumerism, including the emergence of green parties.

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2024 Set 1 ■ Q1

“In the exhilarating period between the years 1600 and 1700, . . . empirical inquiry evolved from the freewheeling, speculative frenzy [of previous centuries] into something with powers of discovery on a wholly new level. . . . [This was] a regimented process that subjected theories to a pitiless interrogation by observable evidence, raising up some and tearing down others, occasionally changing course or traveling in reverse but making in the long term unmistakable progress. [The new method] permitted nothing but matters of explanatory power, nothing but a theory’s ability to account for the observable, to determine the course of scientific argument. Theology, philosophy, even beauty [became] strictly off limits. Scientists, if they chose to dispute, were obliged to do so in the empirical manner.” Source: Michael Strevens, *The Knowledge Machine*, 2020

Using the excerpt, respond to parts a, b, and c.

Question 1

- (a) Describe an argument made in the excerpt.
- (b) Explain how one piece of historical evidence not in the excerpt would support an argument about science made in the excerpt.
- (c) Explain one way in which the change discussed in the excerpt affected European society in the period 1600 to 1800.

Solution 1

(a)

Mark scheme

- Describe an argument made in the excerpt. (1 point) — accept any: During the Scientific Revolution, scientific inquiry became more regimented and disciplined.; Scientists began to use only empirical evidence to argue for their theories.; Doing science became a process of eliminating bad ideas on the basis of evidence.; Scientists narrowed their focus to observable evidence and how well such evidence explained natural phenomena.; Religion declined as an explanation for natural phenomena.

Solution 1

(b) Mark scheme

- Explain how one piece of historical evidence not in the excerpt would support an argument about science made in the excerpt. (1 point) — accept any: Galileo's observations with a telescope were used to discredit the geocentric model of the solar system and promote heliocentrism and/or Kepler's laws of planetary motion.; Harvey's observations of the actions of the heart were used to undermine the theory of humors and establish more accurate notions of anatomy.; Newton's mathematical models of force, acceleration, and gravity were used to explain the motion of physical objects and displacing earlier models of mechanics.; Boyle's work developed the field of chemistry, separating it from alchemy.; Bacon's

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scientific methodology required a hypothesis to be tested with rigorous experimentation and observation.

Solution 1

(c) Mark scheme

- Explain one way in which the change discussed in the excerpt affected European society in the period 1600 to 1800. (1 point) — accept any: The Enlightenment evolved as an intellectual outgrowth of the Scientific Revolution examining human society using scientific practices of natural observation and empiricism.; The success of the empirical approach within the sciences encouraged intellectuals to try this approach, or at least adopt the language of empiricism, in their attempts to improve society and government.; Scientific discoveries gradually began to lead to technological improvements in many areas, such as medicine.; The prestige of science and scientific discoveries led monarchs and governments to support scientific inquiry by funding and patronage of scientific societies.; Belief in the

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supernatural diminished as an explanation for natural forces.; There were widespread critiques of traditional religious beliefs and the Catholic Church based on scientific inquiry and empiricism, as well as criticism of the Church's resistance to new scientific approach.

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2023 Set 1 ■ Q1

“In 1658 Sir Edward Dering (1625–1684), gentleman, politician, and poet, spent his summer making and testing medicines in his home in [England]. Sometime in May of that year, he started a new section in his [journal] headed “physical practices” and began writing down a series of recipes for medicinal remedies and records of his own trials of these medicines. . . . Dering’s enthusiasm for recipes and recipe trials was not unusual. In fact, early modern English gentlemen and gentlewomen were gripped by recipe fever. They eagerly exchanged know-how and . . . diligently wrote down the treasured knowledge in notebooks of all shapes and sizes. The rich archive of surviving texts and the continual appearance of recipes in personal writings and in literary works attest to the importance of recipe collection and exchange as a social and cultural phenomenon in early modern England. Masters and mistresses of large households were expected to have basic knowledge of [natural remedies], cookery, and sugarcraft

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[the making and use of sugar]. Gentlemen and gentlewomen dedicated considerable time, manpower, and resources to all kinds of home-based health care. Not only was the household considered the first resource for dealing with many medical ailments, . . . [but] domestic space was one of the main sites for medical intervention and the promotion of health. Household members were quick to combine self-diagnosis and self-treatment with commercially available medical care, and many produced their own homemade medicines. Gathering, trying and testing medicines and, relatedly, foods were part of this set of activities to gather and construct knowledge about health and the body.” Source: Elaine Leong, historian, *Recipes and Everyday Knowledge: Medicine, Science, and the Household in Early Modern England*, 2017

Using the excerpt, respond to parts a, b, and c.

(a) Describe an argument made in the excerpt.

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(b) Explain how the approach to knowledge described in the excerpt reflects developments of the 1500s and early 1600s.

(c) Explain one effect of the changes in European medicine during the late 1700s and 1800s.

Solution 1

(a)

Mark scheme

- Describe a likely audience of the declaration. (1 point) — accept any: A likely audience is government authorities, to whom he's explaining his reasons for refusing to sign the constitutional oath.; Another audience is his parishioners or other Catholics, explaining his refusal and the important relationship between the Church and the French nation.; He could be explaining to fellow members of the clergy who might be thinking of resisting the revolutionary government or giving in to it.

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(b) Mark scheme

- Explain one way in which the declaration reflects a development during the French Revolution. (1 point) — accept any: The National Assembly was attacking the power and wealth of the Church in France because it owned land and collected tithes/taxes.; The Assembly tried to force clergy members to sign an oath of allegiance to France rather than the Church.; The Revolutionary government had nationalized Church land, making it far less powerful and more subservient to France than before.; The first phase of the French Revolution had begun, and its government was attempting to limit the power of the traditional elite, including the First Estate.; Enlightenment ideas held by revolutionaries emphasized the importance of a separation of church and state rather than obedience to

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traditional religious powers.; The Revolutionary government now paid clerical salaries, tying them to the state.

Solution 1

(c) Mark scheme

- Explain one effect of the changes in European medicine during the late 1700s and 1800s. (1 point) — accept any: Vaccine inoculation for smallpox significantly reduced the death rate from the disease.; Urban areas began to implement more public health measures, such as the creation of sewer systems and curbs on pollution.; Advances in medicine reduced the death rate for Europeans in tropical areas, enabling the vast expansion of European empires in Africa and Asia in the 1800s.; Medicine became a discipline in universities, resulting in qualified doctors and a hospital system, which became the usual way people received medical care.; Sterilization and sanitation, and later an understanding of germs and bacteria, resulted in far fewer deaths from infection and an increased life expectancy.