

1.6 Technological Advances and the Age of Exploration

Name: _____ Class: _____ Date: _____

Total: 12 marks

KEY WORDS technology 技术

Objective

Build the skills to explain how **technology** 技术 enabled exploration.

You must be able to:

- name the navigational and shipbuilding advances that mattered
- explain what each made possible
- distinguish a motive for exploration from an enabler
- state the role of state sponsorship

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ The advances

Improved hull and rig designs allowing sailing against the wind; the compass and astrolabe for position; better charts; and shipboard artillery.

■ What each enabled

Rig design made ocean routes navigable in both directions. Instruments made position estimable out of sight of land. Artillery made a ship able to enforce a claim on arrival.

■ Motive against enabler

A desire for direct access to Asian goods is a **motive**; a ship able to reach Asia is an **enabler**. Confusing them is the commonest error in this subtopic.

■ State sponsorship

Voyages were expensive and risky. Crowns and chartered companies supplied capital and legal authority, which is why exploration followed political rivalry as much as commercial opportunity.

2 Practice

2.1 Name three technological advances relevant to exploration. [3]

2.2 State the difference between a motive and an enabler. [2]

2.3 A voyage is financed by a crown.

(a) State one reason state sponsorship was necessary. [1]

(b) State one consequence for what the voyage sought. [1]

3 Exam-style questions

3.1 The ability to sail against the wind mattered because it made [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** ships faster in port
B ocean routes navigable in both directions
C artillery unnecessary
D charts obsolete

3.2 “A demand for pepper and silk” is [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** an enabler
B a motive
C a technology
D a state policy

3.3 Shipboard artillery is listed among the technologies of exploration.

(a) State what it enabled. [1]

(b) Explain why it belongs with navigation rather than apart from it. [2]
