

6.13 Energy Conservation

Name: _____ Class: _____ Date: _____

Total: 10 marks**KEY WORDS** efficiency 效率 • conservation 节约 • energy conservation 节能

Objective

Build the skills to answer exam questions on **energy conservation**.**You must be able to:**

- distinguish **conservation** 节约 from **efficiency** 效率
- give examples of each
- explain why conservation reduces impacts and cost

1 Worked examples

Study these first. Each one shows the method for a question type used later — follow the steps and you can do the Practice and Exam-style questions yourself.

■ Conservation vs efficiency

- **Energy conservation** — **using less** energy (turning off lights, driving less).
- **Energy efficiency** — getting the **same service using less** energy (LED bulbs, insulation, efficient appliances).

■ Examples of efficiency

LED lights, better insulation, hybrid/electric vehicles, and Energy Star appliances all deliver the same benefit with less energy.

■ Why it matters

Conservation and efficiency **reduce demand**, cutting fossil-fuel use, CO₂ emissions, and cost — often the **cheapest** way to reduce environmental impact.

■ A worked example

Replacing incandescent bulbs with LEDs is **efficiency** (same light, less energy); switching them off when not needed is **conservation** (using less).

2 Practice

Now apply the methods above.

2.1 What is energy conservation? [1]**2.2** Give one example of energy efficiency. [1]**2.3** Why does reducing energy demand help the environment? [1]

3 Exam-style questions

3.1 Installing better home insulation is an example of energy [1]

A	B
C	D

A conservation (using less service)**B** efficiency (same service, less energy)**C** production**D** extraction**3.2** A household wants to cut its energy use.

(a) Give one conservation action and one efficiency measure. [2]

(b) Explain how these reduce environmental impact. [2]

3.3 Explain why energy efficiency is often described as the cheapest way to cut emissions. [2]