ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY HIGHER · UNIT 18 · 25 QUESTIONS

Energy — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1 **A red race car brakes hard. What happens to its kinetic energy?**

- A it becomes sound only, nothing else
- B it is transferred to heat
- C it disappears
- D it increases

Understand It with Pulse | Flag a mistake

2 **A basketball is thrown up. What happens to its speed as it rises?**

- A it decreases
- B it increases
- C it stays the same
- D it becomes zero

Understand It with Pulse | Flag a mistake

3 **A rocket in space has no air around it. What happens to air resistance?**

A it becomes gravity

B it stays the same

C there is none

D it increases

Understand It with Pulse | Flag a mistake

4 **A bicycle rolls down a hill. What happens to its gravitational potential energy?**

A it decreases as kinetic energy increases

B it stays the same

C it increases

D it becomes chemical energy stored in the bike

Understand It with Pulse | Flag a mistake

5 **A cheese pizza contains cheese made from milk. What is milk rich in?**

A vitamin C

B iron

C fibre

D calcium

Understand It with Pulse | Flag a mistake

6 **A cup of coffee is left for an hour. What happens to its temperature?**

A it falls to zero degrees

B it stays the same all day

C it rises above room temperature

D it falls to room temperature

Understand It with Pulse | Flag a mistake

7 **What is the unit of energy?**

A the newton

B the watt

C the joule

D the volt

Understand It with Pulse | Flag a mistake

8 **A 2 kg object is lifted 10 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

A 20 J

B 100 J

C 400 J

D 200 J

Understand It with Pulse | Flag a mistake

9 **A machine uses 240 J of energy and gives out 60 J of useful energy. What is its efficiency?**

- A 12.5%
- B 50%
- C 25%
- D 35%

Understand It with Pulse | Flag a mistake

10 **A device transfers 500 J of energy in 10 seconds. What is its power?**

- A 5000 W
- B 50 W
- C 100 W
- D 25 W

Understand It with Pulse | Flag a mistake

11 **A 5 kg object moves at 4 m/s. What is its kinetic energy?**

A 80 J

B 20 J

C 40 J

D 50 J

Understand It with Pulse | Flag a mistake

12 **Which of these is a non-renewable energy resource?**

A tidal

B wind

C solar

D coal

Understand It with Pulse | Flag a mistake

13 **A 2 kg object is lifted 4 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 160 J
- B 40 J
- C 80 J
- D 8 J

Understand It with Pulse | Flag a mistake

14 **When a ball falls, what happens to its energy?**

- A gravitational potential energy becomes kinetic energy
- B kinetic energy becomes gravitational potential energy
- C energy disappears
- D energy is made

Understand It with Pulse | Flag a mistake

15 **A machine uses 1000 J of energy and gives out 200 J of useful energy. What is its efficiency?**

- A 30%
- B 20%
- C 40%
- D 10%

Understand It with Pulse | Flag a mistake

16 **A device transfers 1000 J of energy in 10 seconds. What is its power?**

- A 50 W
- B 100 W
- C 10000 W
- D 200 W

Understand It with Pulse | Flag a mistake

17 **A 10 kg object moves at 10 m/s. What is its kinetic energy?**

- A 510 J
- B 500 J
- C 1000 J
- D 250 J

Understand It with Pulse | Flag a mistake

18 **How can heat loss from a house be reduced?**

- A by removing curtains
- B by opening windows
- C by turning the heating up
- D by insulating the loft

Understand It with Pulse | Flag a mistake

19 **A 2 kg object is lifted 5 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 100 J
- B 50 J
- C 10 J
- D 200 J

Understand It with Pulse | Flag a mistake

20 **A machine uses 160 J of energy and gives out 80 J of useful energy. What is its efficiency?**

- A 50%
- B 100%
- C 60%
- D 25%

Understand It with Pulse | Flag a mistake

21 **A 10 kg object moves at 5 m/s. What is its kinetic energy?**

- A 135 J
- B 125 J
- C 250 J
- D 62.5 J

Understand It with Pulse | Flag a mistake

22 **A 2 kg object is lifted 3 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 30 J
- B 60 J
- C 6 J
- D 120 J

Understand It with Pulse | Flag a mistake

23 **A machine uses 200 J of energy and gives out 40 J of useful energy. What is its efficiency?**

- A 20%
- B 10%
- C 40%
- D 30%

Understand It with Pulse | Flag a mistake

24 **A device transfers 100 J of energy in 20 seconds. What is its power?**

- A 10 W
- B 2.5 W
- C 5 W
- D 2000 W

Understand It with Pulse | Flag a mistake

25

What is the unit of power?

A the newton

B the watt

C the joule

D the volt

Understand It with Pulse

Flag a mistake

ANSWER KEY

1.	B	**10.**	B	**19.**	A
2.	A	**11.**	C	**20.**	A
3.	C	**12.**	D	**21.**	B
4.	A	**13.**	C	**22.**	B
5.	D	**14.**	A	**23.**	A
6.	D	**15.**	B	**24.**	C
7.	C	**16.**	B	**25.**	B
8.	D	**17.**	B		
9.	C	**18.**	D		

© 2026 Brett Robbins. All Rights Reserved.