GCSE COMBINED SCIENCE · ENERGY

Blurt it

Step 1

Name _____ **Date** _____

1. Cover your notes and put your phone face down.
2. Set a timer for 5 minutes.
3. Write down everything you remember about energy: facts, key words, equations, practicals, and mistakes to avoid. Diagrams count too.

Stuck? Start with one of these: kinetic energy · specific heat capacity · efficiency

When the timer ends, turn over and check what you remembered.

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Check it, fix it, space it

Steps 2, 3 and 4

Check it

Tick each idea you wrote down, even in your own words.

- [ ] When a system changes, energy moves between stores
- [ ] Kinetic energy = ½ × mass × speed²
- [ ] Gravitational potential energy = mass × gravitational field strength × height
- [ ] Elastic potential energy = ½ × spring constant × extension²
- [ ] Change in thermal energy = mass × specific heat capacity × temperature change
- [ ] Power is the rate of energy transfer: power = energy ÷ time, and 1 watt is 1 joule per second
- [ ] Energy cannot be created or destroyed; some is always dissipated (wasted)
- [ ] Lubrication and thermal insulation cut down wasted energy
- [ ] Efficiency = useful output ÷ total input
- [ ] Renewable resources are replenished as they are used; non-renewable resources will run out

Higher only

- [ ] Describe ways to make an energy transfer more efficient

Key words to use: system · kinetic energy · elastic potential energy · gravitational potential energy · specific heat capacity · power · watt · dissipation · thermal conductivity · efficiency

I remembered _____ out of 10. **Higher only: _____ out of 1.**

Fix it

Pick 3 ideas you missed. Look them up, then write each one correctly.

1

2

3

Space it

Blurt again on a fresh sheet. Gaps help you remember for longer.

Tomorrow
Date _____
Score _____ / 10
Higher only _____ / 1

In 3 days
Date _____
Score _____ / 10
Higher only _____ / 1

In a week
Date _____
Score _____ / 10
Higher only _____ / 1

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