Energy transfer

Answers

KS3 science quick questions

This topic online

Activate 2: Energy; Activate 3: Energy | Exploring Science 7I, 8K

Q	Answer	Remember
1	kinetic	Anything moving has energy in its kinetic store.
2	chemical	The energy is released when chemical reactions happen.
3	gravitational potential	The higher something is lifted, the more energy is in this store.
4	elastic	Let go and the elastic store empties into the kinetic store.
5	thermal	The hotter something is, the more energy is in its thermal store.
6	transferred	Energy just moves from store to store - the total never changes.
7	wasted	Wasted energy still exists - it is just too spread out to use.
8	stays the same	Energy is never made or destroyed, so the total before always equals the total after.
9	chemical	Your muscles use the chemical store from food to turn the handle.
10	up	The faster something moves, the more energy is in its kinetic store.
11	elastic	Squashing fills the elastic store as well as stretching does.
12	thermal	Wasted energy usually ends up warming the surroundings a tiny bit.
13	40 J	Useful energy = energy in - energy wasted: 50 - 10 = 40 J.
14	gravitational potential	As it drops, the gravitational store empties into the kinetic store.
15	thermal	Friction in the brakes warms them up - touch them after a long hill.
16	80 J	Energy in = energy out, so 100 - 20 = 80 J is wasted.
17	20%	Useful energy ÷ total energy × 100 = 20 ÷ 100 × 100 = 20%.
18	120 J	60% of 200 J = 0.6 × 200 = 120 J. The other 80 J is wasted.
19	kinetic	As it falls, the gravitational potential store empties into the kinetic store.
20	On each bounce some energy is dissipated to the surroundings (by sound and heating), so less energy is left to fill the gravitational store at the top.	Energy is conserved, but some spreads out wastefully every bounce, so it cannot go on for ever.

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