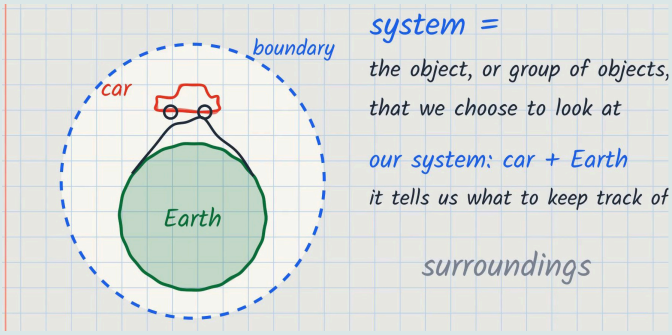
Energy stores and systems

where does the energy go?

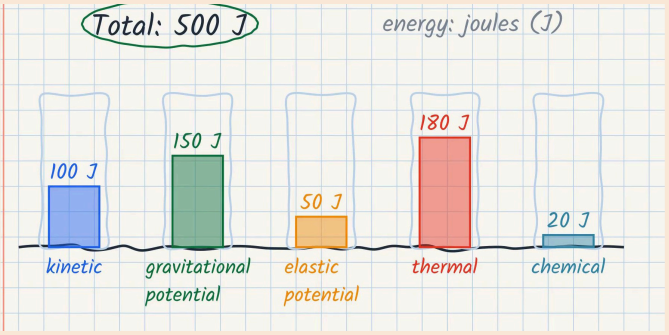
sansara academy
Summary sheet

1 Systems



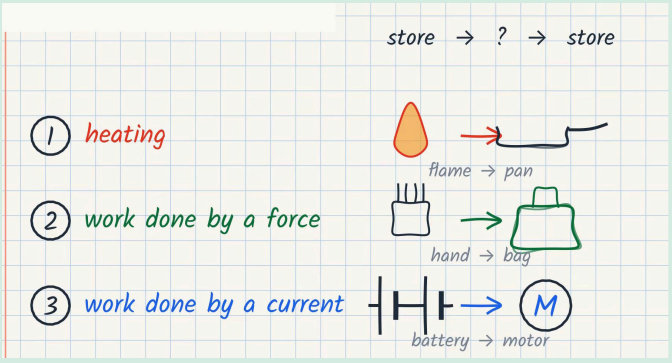
- A **system** is the object, or group of objects, that we choose to look at.
- Everything outside the boundary is the **surroundings**.

2 Energy stores



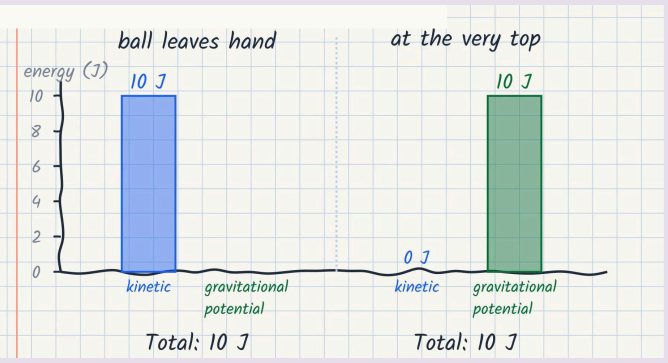
- Main stores: **kinetic**, **gravitational potential**, **elastic potential**, **thermal** and **chemical** (also nuclear, magnetic, electrostatic).
- Energy is measured in joules (J). When energy moves between stores, the **total stays the same**.

3 How energy moves



- Three ways: **heating**, **work done by a force**, and **work done by a current**.

4 Describing a change



- Name the **store that empties**, say **how** the energy is transferred, then name the **store that fills**.
- Ball thrown up: kinetic → gravitational potential (its weight does work). Show it on a common scale: same total, different store.

Exam tip
Name the stores in full: write “gravitational potential store”, not just “potential”.

Check yourself

- 1 A phone falls off a table. Which store empties, and which fills?
- 2 Which three ways can energy be transferred?
- 3 True or false? The total energy in a system changes when energy moves between its stores.

Answers: 1. Gravitational potential empties; kinetic fills. 2. Heating, work done by forces, work done by a current. 3. False: the total stays the same.