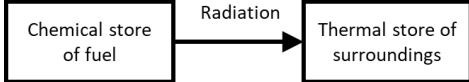


## Knowledge Organiser Questions

These questions can be found at <https://bit.ly/2BWzHrB>

KQ.1. What do we call the law which states that: “Energy cannot be created or destroyed. It is only transferred from store to another”	Law of conservation of energy
KQ.2. What are the units of energy?	Joules or J
KQ.3. What is the mnemonic we use for the different energy stores	8 kg cement
KQ.4. Which energy store is associated with a moving object?	kinetic store
KQ.5. Which energy store is associated with an object high up?	Gravitational potential store
KQ.6. Which energy store is associated with a battery?	Chemical store
KQ.7. Which energy store is associated with food?	Chemical store
KQ.8. Which energy store is associated with a fuel?	Chemical store
KQ.9. Which energy store is associated with a squashed spring?	Elastic potential store
KQ.10. Which energy store is associated with the Sun?	Nuclear store
KQ.11. Which energy store is associated with a hot object?	Thermal store
KQ.12. What is the mnemonic we use for the different energy pathways?	4 Mr He
KQ.13. Which pathway is involved when an object moves and experiences friction?	Mechanical work done
KQ.14. Which pathway is involved when an object is lifted up?	Mechanical work done
KQ.15. Which pathway is involved when an object falls through the air?	Mechanical work done
KQ.16. Which pathway is involved when the chemical store of a battery moves to the thermal store of a heater?	Electrical work done (or electrical current)
KQ.17. Which pathway is involved in transferring energy from the Sun to Earth?	Radiation
KQ.18. Which pathway is involved in transferring energy stored in your body to an ice cube in your hand?	Thermal
KQ.19. Draw a simple energy transfer diagram for a wood fire heating a room	 <pre> graph LR     A[Chemical store of fuel] -- Radiation --&gt; B[Thermal store of surroundings]             </pre>
KQ.20. What is the name of the variable you change in an investigation?	Independent variable
KQ.21. What is the name of the variable you measure in an investigation?	Dependent variable
KQ.22. An experiment where only the independent variable affects the dependent variable	Fair test
KQ.23. What sort of graph/chart do we use for categoric variables?	A bar chart
KQ.24. What sort of graph/chart do we use for continuous variables?	A line graph (with line of best fit)
KQ.25. What do scientists do to increase confidence that everyone agrees with their conclusions?	Share results

KQ.26. Is there gravity in space?	Yes (everywhere)
KQ.27. If you are using a glass apparatus in an experiment, what risk should always be included in your plan?	Glass might break and cut you
KQ.28. What do we call results that do not fit the pattern of the rest?	Anomalous
KQ.29. Name the useful energy store in an electric toaster.	Thermal store of the toast
KQ.30. Name a wasted energy store in an electric oven	Thermal store of the surroundings
KQ.31. What do we call the process where energy is always transferred to the thermal store of the surroundings?	Dissipated
KQ.32. What is the measurement of how good something is at not wasting energy?	Efficiency
KQ.33. What is the maximum value of efficiency possible?	1 or 100%
KQ.34. What is power a measure of?	Rate energy is transferred (Joules each second)
KQ.35. What are the units of power?	Watts (W)
KQ.36. What are non-renewable fuels?	Ones that will run out
KQ.37. Name the 3 fossil fuels.	Coal, oil and gas
KQ.38. Other than fossil fuels, name one other non-renewable source.	Nuclear
KQ.39. Approximately how long does it take to make fossil fuels?	Hundreds of millions of years
KQ.40. What gas do fossil fuels release when they are burned?	Carbon dioxide
KQ.41. Nuclear power can produce huge amounts of electricity without the worry they will run out. What is their other big advantage?	They do not release carbon dioxide
KQ.42. Uranium is one nuclear fuel. Name the other common one.	Plutonium
KQ.43. What does renewable energy sources mean?	Ones that will not run out
KQ.44. Growing biofuels takes space which could be used to grown food. Give one other disadvantage of biofuels.	Release carbon dioxide (when they are burned)
KQ.45. Biofuels absorb carbon dioxide when they grow. If they release the same amount of carbon dioxide when they are burned we call them what?	Carbon neutral
KQ.46. What energy store do both wind and wave power use?	Kinetic store (of air and water)
KQ.47. What energy store do both tidal and hydro-electric power use?	Gravitational potential store (of water)
KQ.48. What energy store does solar power use?	Nuclear store (of the Sun)
KQ.49. What energy store does geothermal power use?	Thermal store (of the Earth)
KQ.50. As an object increases its thermal store, what happens to the particles inside it?	They vibrate faster (or break bonds holding them together)