QUESTION	ANSWER

Quiz Cards: Energy Changes

How to use the quiz cards to learn the key facts

1) Take 6 quiz cards at a time and read through them

2) Cover up the answer side of the page.

Question	Answer

3) Take the first quiz card and ask yourself the question. Either write the answer down or say it out loud.

4) Check your answer using the answer side of the card.

5) Do this question again until you get it right.

6) Repeat the process for the second question.

7) Before going onto the third question repeat question one and two.

8) When you have gone through all of the questions try and do them in a random order to really test your knowledge.

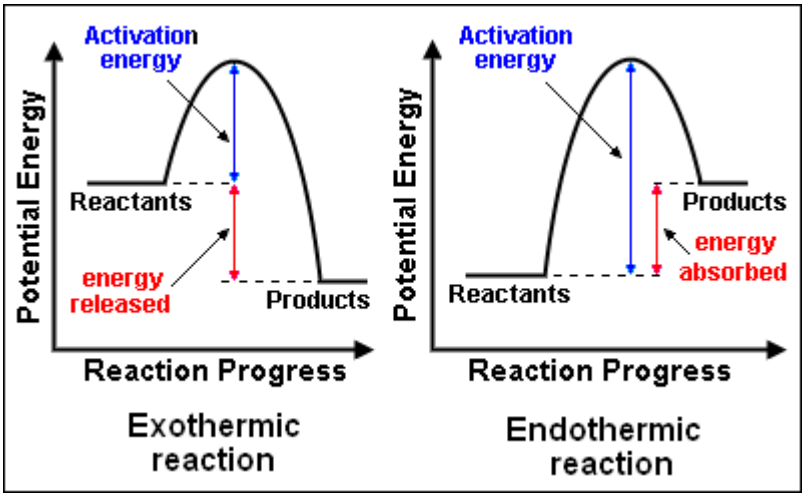
ONCE YOU HAVE LEARNT THEM ALL ….

9) Complete some exam questions to apply your knowledge.

10) Check your answer with the mark scheme and correct any errors in green pen.

11) Repeat steps 9-10 until you get the answers correct all of the time.

QUESTION	ANSWER
What happens to energy during a chemical reaction?	Energy is transferred to or from the surroundings (so they get hot or cold).
What is the conservation of energy?	The amount of energy at the end of a chemical reaction is the same as before.
What is an exothermic reaction?	**Exothermic** reactions transfer energy to the surroundings – (so <u>give out heat</u>). The product molecules must have less energy than the reactants.
What are examples of exothermic reactions?	combustion, many oxidation reactions neutralisation. self-heating cans (e.g. for coffee) hand warmers.
What is an endothermic reaction?	<u>Take in energy</u> from the surroundings – (so feel cold).
What are examples of endothermic reactions?	thermal decompositions some sports injury packs that get cold

QUESTION	ANSWER
What is a reaction profile?	Show the relative energies of reactants and products, the activation energy and the overall energy change of a reaction.
What is activation energy?	The minimum amount of energy that particles must have to react is called the activation energy.
Draw energy level diagrams to represent exothermic and endothermic reactions.	
In terms of energy **what** happens when bonds are broken?	Energy must be supplied to break bonds in the reactants
In terms of energy **what** happens when bonds are made?	Energy is released when bonds in the products are formed.
What is the overall change in energy of a reaction?	The difference between the sum of the energy needed to break bonds in the reactants and the sum of the energy released when bonds in the products are formed

QUESTION	ANSWER
Compare (in terms of bond energies) exothermic and endothermic reactions.	In an exothermic reaction, the energy released from forming new bonds is greater than the energy needed to break existing bonds. In an endothermic reaction, the energy needed to break existing bonds is greater than the energy released from forming new bonds.