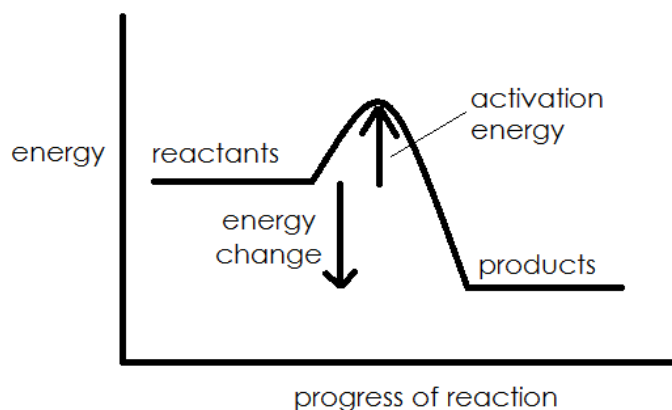


<p>In an exothermic reaction does the temperature of the reaction mixture increase or decrease?</p>	<p>In an endothermic reaction does the temperature of the reaction mixture increase or decrease?</p>
<p>In which type of reaction is energy transferred to the surroundings?</p>	<p>In which type of reaction is energy absorbed from the surroundings?</p>
<p>In which type of reaction do the products have more energy than the reactants?</p>	<p>In which type of reaction do the products have less energy than the reactants?</p>
<p>Explain in terms of bond strength why a reaction would be exothermic</p>	<p>Explain in terms of bond strength why a reaction would be endothermic</p>

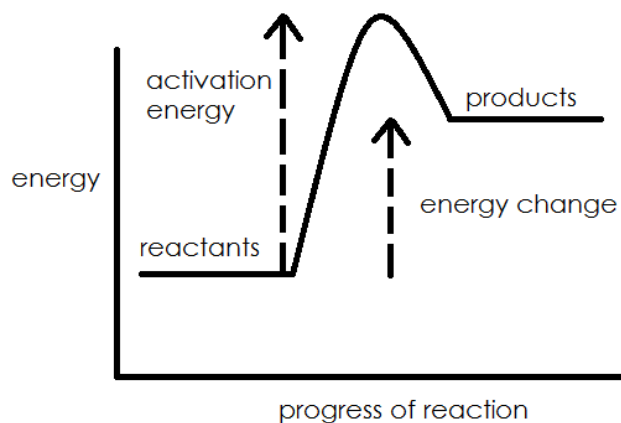
decrease	increase
endothermic	exothermic
exothermic	endothermic
The bonds made are weaker than the bonds broken	The bonds made are stronger than the bonds broken

<p>Draw a reaction profile for an endothermic reaction. Label the reactants, products, activation energy and overall energy change</p>	<p>Draw a reaction profile for an exothermic reaction. Label the reactants, products, activation energy and overall energy change</p>
<p>What is the activation energy?</p>	<p>What is the bond energy?</p>
<p>Why are bond energies sometimes different to the theoretical values?</p>	<p>What is the formula for calculating energy change of a reaction using bond energies?</p>
<p>What does a positive value for energy change in a reaction mean?</p>	<p>What does a negative value for energy change in a reaction mean?</p>

Exothermic Reaction



Endothermic Reaction



The amount of energy needed to break one mole of bonds

The minimum energy needed to start a reaction

Sum of the bond energies of the reactants—sum of the bond energies of the products

They are averaged over a range of different compounds

The reaction is exothermic

The reaction is endothermic