

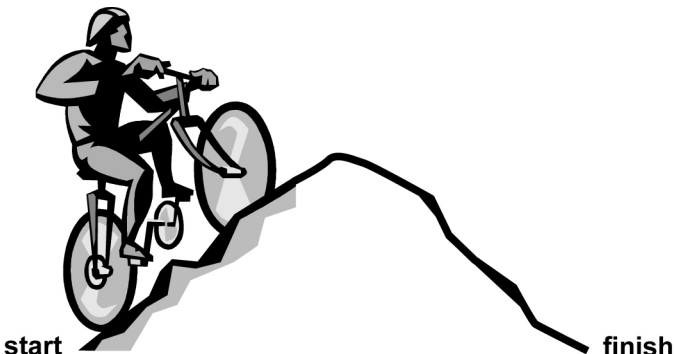
## Factors Affecting Rate of Change

Several factors affect the rate of reaction. The two main ones include adding a substance and changing how much the substances touch.

- Read each explanation.
- Write an example for each.

### a) Adding a Substance

The substance that is added changes the rate of reaction, but doesn't get used up by the reaction.

Factor	Explanation	Example
Catalyst	 <ul style="list-style-type: none"> <li>• It acts to speed up the rate of reaction. Imagine wind blowing the cyclist along.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Inhibitor	<ul style="list-style-type: none"> <li>• It slows down a reaction by keeping the two substances apart. Imagine the cyclist fighting against a head wind.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

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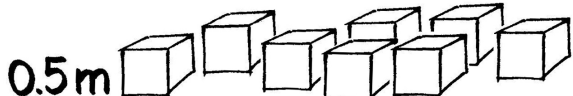


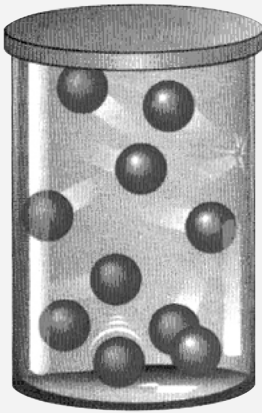
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**BLM 3-3**

(continued)

**b) Changing How Much the Substances Touch**

The more two substances touch each other, the faster they will react. There are four ways to change this.

Factor	Explanation	Example
Surface area	 <p>0.5m</p> <ul style="list-style-type: none"> <li>More surface area means more points at which substances touch.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Stirring	 <ul style="list-style-type: none"> <li>Stirring breaks up piles and moves substances around so that fresh parts can react.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Concentration	 <ul style="list-style-type: none"> <li>A higher concentration means there is more substance available for a reaction.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Temperature	 <ul style="list-style-type: none"> <li>The particles in a substance spread out and move faster as they are heated.</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>