



**The following statements describe factors that affect the rate of chemical reaction. Use the word bank below to complete the statements**

<b>Catalyst</b>	<b>Surface</b>	<b>Concentration</b>	<b>Energy</b>
<b>Effective</b>	<b>Unchanged</b>	<b>Collisions</b>	<b>Frequency</b>
<b>Collide</b>	<b>Activation</b>	<b>Temperature</b>	<b>Area</b>

1. T \_\_\_\_\_ : this affects the energy of the particles and how quickly they C \_\_\_\_\_. Increasing the temperature of a system can lead to an increase in collision rate. It also affects the F \_\_\_\_\_ with which the particles collide and how E \_\_\_\_\_ the collisions are. The energy required for any reaction to take place is called the A \_\_\_\_\_ energy for that reaction.
2. C \_\_\_\_\_ : this is a measure of how crowded the particles are in a solution and the frequencies of collision. It changes the frequency of collision.
3. S \_\_\_\_\_ A \_\_\_\_\_ : this is a measure of how much solid is exposed to reaction and therefore how many C \_\_\_\_\_ take place. It changes the frequency of collision.
4. The presence of a C \_\_\_\_\_ : these speed up a chemical reaction but is U \_\_\_\_\_ chemically. They work by lowering the activation E \_\_\_\_\_ for the reaction.