

5 Reaction rate and collision theory – Part 1 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 higher concentration, higher temperature, larger surface area, and adding a catalyst.

2.2 the particles must collide with enough energy (above the activation energy) and in the correct orientation.

2.3 a higher concentration means more particles in the same volume, so collisions happen more often, and more frequent collisions mean a faster rate.

2.4 the minimum energy that colliding particles need for a reaction to happen.

2.5 the powder has a much larger surface area exposed to the acid, so there are more collisions per second and the reaction is faster.