Worksheet 1

Name Class Date

Use the notes and diagrams to help you write explanations for the effect of each factor on reaction rate.

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| Factor | Explanation |
| **1** The effect of increasing concentration  \\172.17.150.18\production\03_Production_CSC\03_Art\06_IG_HTML\CHEMISTRY\Output\01_Worksheet\Lesson 38\Chem_L38_WS1_AW1.jpg | The reaction will only take place when the particles collide with enough energy.  Increasing the concentration increases the rate of reaction.  If there are more particles, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **2** The effect of increasing temperature  \\172.17.150.18\production\03_Production_CSC\03_Art\06_IG_HTML\CHEMISTRY\Output\01_Worksheet\Lesson 38\Chem_L38_WS2_AW2.jpg | Increasing the temperature increases the rate, because the particles have more energy.  This increases the rate of reaction in two ways.  1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **3** The effect of increasing surface area  \\172.17.150.18\production\03_Production_CSC\03_Art\06_IG_HTML\CHEMISTRY\Output\01_Worksheet\Lesson 38\Chem_L38_WS2_AW3.jpg | Increasing the surface area  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**4** Use ideas about collisions and energy to explain how the rate of a reaction can be increased by changes in concentration, temperature and the size of pieces of a solid reactant.

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