**GPS – Rate of reaction intro**

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| ***Bellwork*** | |
| 1 | 1. Do all reactions happen at the same speed? |
| 1. What does a “rate of reaction” mean?    1. The speed of different chemical reactions varies hugely. Some reactions are very \_\_\_\_\_\_\_\_ and others are very \_\_\_\_\_\_\_\_\_\_.    2. The speed of a reaction is called the \_\_\_\_\_\_\_\_\_ of the reaction.    3. What is the rate of these reactions?      1. Rates of Reaction    1. A chemical reaction involves a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between particles.    2. The particles collide and make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.    3. The original particles which react are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.    4. The substances which are made or produced are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 2. Reactions, particles and collisions   Reactions take place when particles collide with a certain amount of \_\_\_\_\_\_\_\_\_\_\_.   * 1. The rate of reaction depends on two things:   ∙ the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of collisions between particles  ∙the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with which particles collide.   * 1. The minimum amount of energy needed for the particles to react is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and is different for each reaction.   2. If particles collide with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy than the activation energy, they will \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_. The particles will just bounce off of each other.      1. Changing the rate of reactions    1. Anything that \_\_\_\_\_\_\_\_\_\_\_\_\_ the number of successful collisions between reactants will speed up a reaction.    2. What factors affect the rate of reactions?   ∙ increased \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  ∙ increased \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of reactants or **pressure** of gases  ∙ increased \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ of solid reactants  ∙ use of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

***Work now on the directed readings.***