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TedEd Video: Reaction Rates and Getting a Date

1. In this video, adding more students is like which of the following for reactions:
    a. Decreasing the volume of the reaction container
    b. Adding more particles of reactants
    c. Adding a catalyst
    d. Increasing temperature of the reaction

2. Talking about getting a date for the dance is an analogy. But let's get back to chemical reactions. List 3 ways you could increase the rate of reaction (speed up) for the reaction below:

$$Mg + \underline{2}HCl \rightarrow MgCl_2 + H_2$$

Magnesium + hydrochloric acid → magnesium chloride + hydrogen gas

    a. Increase the _____
    b. Decrease the _____
    c. Add a _____

3. In the dating analogy, shrinking the hallway is like
    a. Decreasing the volume of the reaction container
    b. Adding more particles of reactants
    c. Adding a catalyst
    d. Increasing temperature of the reaction

4. Explain how a catalyst works.

5. Give an example of a catalyst in a reaction.

6. In the dating analogy, shortening the passing periods is like
    a. Decreasing the volume of the reaction container
    b. Adding more particles of reactants
    c. Adding a catalyst
    d. Increasing temperature of the reaction

7. In what ways is being able to control the rate of a chemical reaction useful to the following chemistry related professions:
    a. Chemical engineer working on alternative fertilizers -
    b. Physician -
    c. Chef -

8. In the dating analogy, hiring a matchmaker is like
    a. Decreasing the volume of the reaction container
    b. Adding more particles of reactants
    c. Adding a catalyst
    d. Increasing temperature of the reaction

9. What are 2 conditions that must be met in order for a chemical reaction to take place?
    a. Collisions with the proper orientation
    b. Sufficient activation energy
    c. Appropriate friction
    d. Both A and B
    e. Both B and C