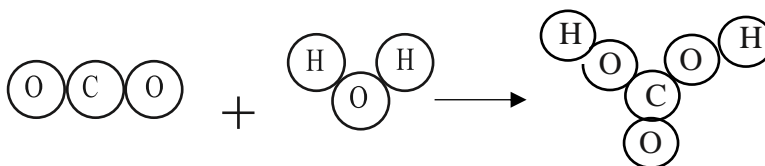


Name \_\_\_\_\_ Date \_\_\_\_\_ Hour \_\_\_\_\_

### CHEMICAL INTERACTIONS INV. 9 I-CHECK REVIEW

1. Consider the model representing the chemical reaction between carbon dioxide (CO<sub>2</sub>) and dihydrogen monoxide (H<sub>2</sub>O). Label the REACTANTS and the PRODUCTS.



A.

B.

Use the model to explain what happens in a chemical reaction.

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2. A scientist prepared a closed container for a chemical reaction. She poured two liquids into the bottle and quickly closed the bottle with the balloon stopper. The mixture bubbled and the balloon began to inflate. Explain why the balloon inflated. Make sure to explain what was created and its spacing.

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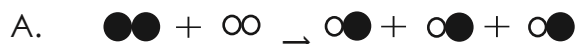


3. The different-shaded circles represent different kinds of atoms. When circles are touching, they indicate that those atoms make up one molecule. Which model would represent a chemical reaction? \_\_\_\_\_  
Why?

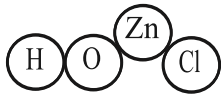
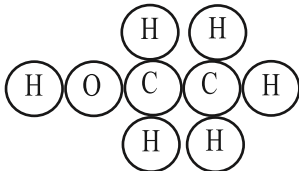
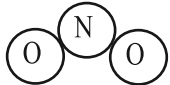
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4. Below are the models for common substances. Complete the information in the table.

Model	Chemical formula	Number of atoms	Number of elements	Compound Name
				
				
				

5. Is there air between atoms in substances? Why or why not?

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6. When atoms combine to form compounds, do they gain, lose, or share electrons? Explain.

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7. Draw a model for  $\text{MgCl}_2$

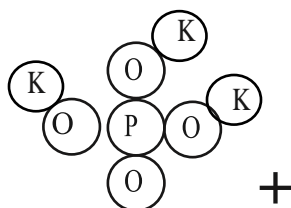
8. Which of the following are examples of a chemical reaction? **Circle all that apply.**

- A. Liquid Jell-O becomes a solid when placed in the refrigerator.
- B. Sugar turns black when heated over a flame.
- C. The surface of the Statue of Liberty changes color after many years.
- D. A substance evaporates from boiling pot.
- E. A white substance is left behind after water evaporates from a solution.
- F. A spoonful of salt vanishes in a glass of water.

9. Consider the chemical equation that describes what happens when potassium phosphate and hydrochloric acid are combined.



- a. Complete the atomic model that describes this equation.



- b. How does the model show that mass is conserved during the reaction?

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