

# Research Lesson Title: Fizz Quiz

Research Theme: Chemistry and chemical reactions

Content Goal: Students will be able to understand that mixing various solutions will produce a different product and that mixing solutions will create chemical reactions.

Steps of Lesson	Teacher Support/Directions	Lesson Objectives	Expected Student Reaction/Research Questions	Notes/Evidence
1. Discuss chemicals 2. Review safety 3. Review solution 4. Make solutions 5. Discuss the solubility of baking soda 6. Discuss the solutions	Guide investigation using foss lesson directions...	Students will be able to describe the process of a chemical reaction for each cup using academic vocabulary verbally in small groups.  Students will be able to record their observations on the Fizz-Quiz Observations data collection sheet. Students will draw the reaction as well as write out how the reaction occurred.  Students will compare	Excitement, inquisitiveness, developing questions, discussion  Research questions:  What solution makes a new substance? (precipitate)  How do you know a chemical reaction is going on?  What substances reacted to form a	Students witnessed the reactions each time and discussed with their groups and recorded on observation sheet.  The students recognized when the chemical reaction was a gas reaction because they saw the gas coming up out of the cup(temperature, fizzing, color, smell).

<p>7. Discuss two-chemical solutions</p> <p>8. Introduce place mat</p> <p>9. Introduce observation sheet</p> <p>10. Distribute materials</p> <p>11. Investigate cup one evidence of the reaction</p> <p>12. Investigate cups 2 and 3</p> <p>13. Assess progress: notebook sheet</p> <p>14. Discuss observations</p> <p>15. Return materials</p>		<p>reactants and products before and after a reaction</p> <p>Observe and identify the products of a reaction</p>	<p>gas?</p> <p>How was energy released during the reaction?</p> <p>How did the reaction look? What did you observe?</p> <p>What was the product from the reactants?</p>	<p>The question regarding how energy was released question was the most difficult for the students to answer.</p> <p>Students shared videos and photos of reactions and explained why there was evidence of a reaction.</p> <p>After completing investigations, students understood what constituted evidence of a chemical reaction.</p>
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16. Discuss fizzing and white stuff (gas)				
17. Discuss carbon dioxide as particles				
18. Wrap up lesson				
19. Discuss tomorrow's follow-up lesson.				

KEEP CUP ONE!!!!