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Research Summary

The 21st century has presented a unique set of problems and questions that humans are tackling with science. To prepare a new generation that is ready to solve these issues, science education must be effective. This study aims to investigate ways in which students can learn science effectively by grasping key concepts and avoiding misconceptions. The focus of this study is specifically on the effect of visuals used in the classroom on student misconceptions. The plan is to compare two groups of students that are given different diagrams with varying degrees of simplification. Both groups will be given an identical assessment that is designed to measure the number of misconceptions each group has. A statistically significant difference in scores will suggest that one diagram was more effective than the other in communicating information that does not promote misconceptions. By identifying potentially problematic diagrams, science education can be improved.