

Id No.:

Name : \_\_\_\_\_

Class : \_\_\_\_\_ Date : \_\_\_\_\_

## Chapter : Atom and Molecules

## Topic : Laws of Chemical combinations

Watch the following video

1. **What is the primary purpose of the study?** The study aims to evaluate the effectiveness of a new treatment for hypertension in a diverse population.

2. **What are the key variables being measured?** The primary outcome is blood pressure reduction, measured at baseline, 3 months, and 6 months. Secondary outcomes include changes in heart rate, blood glucose levels, and lipid profiles.

3. **What is the study design?** The study is a randomized controlled trial (RCT) comparing the new treatment (Group A) against a standard treatment (Group B). Both groups will receive the same diet and exercise interventions.

4. **What is the study population?** The study population consists of 1000 adults aged 40-65 with hypertension, recruited from three different geographic areas: urban, suburban, and rural.

5. **What is the study duration?** The study will last 6 months, with a 12-month follow-up period for the primary outcome.

6. **What is the study setting?** The study will be conducted in three medical centers located in the three geographic areas.

7. **What is the study protocol?** Participants will be randomly assigned to Group A or Group B. Both groups will receive the same diet and exercise interventions. Group A will receive the new treatment, while Group B will receive the standard treatment. Blood pressure, heart rate, blood glucose, and lipid profiles will be measured at baseline, 3 months, and 6 months.

8. **What is the study power?** The study has a power of 80% to detect a difference in blood pressure reduction of 10 mmHg between the two groups.

9. **What is the study sample size?** The study will recruit 1000 participants to ensure adequate power and precision.

10. **What is the study significance level?** The study will use a significance level of 0.05.

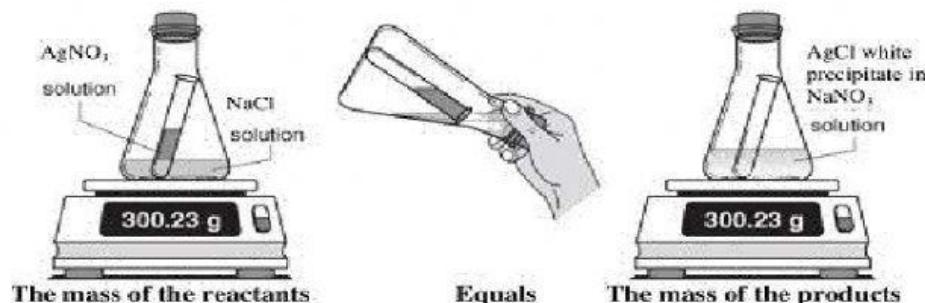
State the Law of Conservation of mass

1. **What is the primary purpose of the study?**

State the law of constant proportions

1. **What is the primary purpose of the study?** (1 point)

An experiment was conducted as shown below. Silver nitrate solution reacts with sodium chloride to give silver chloride and sodium nitrate.



Identify the reactants

1. **What is the primary purpose of the study?** (e.g., to evaluate the effectiveness of a new treatment, to explore a new research question, to describe a population, etc.)

### Identify the products

3. *What is the relationship between the two concepts?*