Lesson 12 – Does Mass Change in a Chemical Reaction?

Activity 12.A

What Will We Do?

We will conduct an experiment to determine whether mass stays the same or changes when we make a substance called gloop.

Prediction

Do you think the mass will change when you make gloop? Why?

Students' responses will vary. Look to see that the students provide reasons for their responses (the "why" of their predictions).

Procedure

Data

The following is a sample student data. Actual data will depend on the mass of the containers.

	Before the Reaction	After the Reaction
Total Mass (grams)	145.9g	145.9g
Observations of Reaction	***To start out, we had two white liquids and a clear liquid (water). When we mixed them, they became more solid and sticky.***	

Conclusion

1. Write a scientific explanation that answers the question: Does mass stay the same or change when you make gloop?

   The mass of the starting materials and the end materials was the same. [Claim] Before the reaction the mass was 145.9g and after the reaction the mass was 145.9g. [Evidence] I think the reason that mass stayed the same is because I still have all of the material (atoms) that I started with. During a chemical reaction the atoms just rearrange. You still have the same number and type of atoms so the mass is the same. [Reasoning]

2. Look at your prediction at the beginning of the sheet. Did your findings for Conclusion Question 1 support your prediction? Why do you think your findings did or did not support your prediction?

   This will vary depending on the students' predictions.