RECORD SHEET

Activity 3: Mass and Open Systems

Name Date Class

Key Question

We Think

1. What do you think will happen to the mass of the plastic bag and its contents after the gas is released? Why?

Explore Your Ideas

Table: Mass Measurements	
	Mixing Vinegar and Baking Soda
End Mass	(After gas is released) _____ g
Start Mass	(Before gas is released) _____ g
Change in Mass = End Mass – Start Mass	_____ g
Class Average Change in Mass	_____ g
Uncertainty in Mass	_____ g
Taking into account the uncertainty in mass, does the mass *increase*, *decrease* or *stay the same?*	

Make Sense of Your Ideas

1. Is the system used in the chemistry experiment a closed or an open system? Why?

2. What happened to the mass in the experiment? Include your evidence from the class data and take the uncertainty into account.

3. What would have happened to the mass during the interaction if the bag had been left open?

4. What do you think happens to the mass of an open system if you add mass to the system?

Our Consensus Ideas

The key question for this activity is:

What can happen to the amount of mass in an open system during an interaction?

1. Write your best answer to the key question. Include your reasoning.

2. Record the class consensus ideas about the key question.