

## **Guideline for ChemSense to the Curriculum Cover Page**

Each activity will get a separate cover sheet.

Each unit lesson (including all the activities) will get an overall cover sheet.

Note: You don't necessarily have to write an entire unit lesson

### **Draft numbers:**

Version 1.1(first draft), 1.2 (second draft), etc.:

Drafts prior to student piloting in your classroom

Version 2.1, 2.2.....: A revision of Version 1 drafts, made by teachers, after using activity with their students.

Version 3.1, 3.2.....: Compilation of multiple Version 2 drafts on the same curriculum made by different teachers. This SRI staff will do and send back to teachers.

Version 4.1: Version 3 after using activity with students, with teacher made revisions incorporated.

Version 5.1: Final Form. ChemSense team will be responsible for this one.

### **Specialized Tools Needed:**

This is a section to mention if there are any atypical laboratory tools or supplies needed to complete the task. For instance, Vernier probeware may be necessary.

### **Chemistry Concepts in Activity**

These concepts should be linked to the CA State Standards, <http://cde.ca.gov/cfir/> in Chemistry **AND** the ChemSense 5 themes.

The ChemSense themes have been developed by Brian Coppola, Univ. of Michigan.

These themes are intended to provide a "nanoscopic-level" framework.

The 5 ChemSense themes are:

1. Aggregation: the homogenous and heterogenous **inter**molecular arrangements of molecules as they cluster together (also called supramolecular chemistry).
2. Connectivity: Connections between atoms within a molecule.
3. Geometry: The spatial relationships between atoms in a molecule.
4. State: This describes the state of matter of a substance, but with the perspective of the molecular view of the particles in association with energy relationships that exist within a set of molecules or individual atoms. An example would be to look at the average energy of molecules relative to the forces of aggregation. This relationship will determine the state of matter.
5. Concentration: This is the usual way of conceiving of concentration of molecules.

### **Activity Summary**

This is a brief overview of the activity.

### **Sources**

If you have used any outside sources for developing this activity, list them here.

### **Activity**

This is where you will detail the purpose, materials required, procedure, etc.

### **Rubrics or other materials for scoring:**

Here there will be information about the scoring technique, point distribution, rubric (if you used or developed one) are other pieces of information that you used to score the activities.