**Worksheet 5-5—Lesson Plan Format**
(adapted with permission)

| Subject: Chemistry | Teacher: Sligar, Kristy |
| Lesson Name: Safety Signs | Location: Centennial HS |
| Class: Chem A/B | Unit Context: Gasses |
| Date: 3/10/09 | |

**Activities**  
Students will use information presented in previous lectures, labs and assignments to classify safety signs around the classroom, as specific gas laws, gas properties, kinetic theory of gasses or gas variables. The reason why the gas law was chosen must be stated.

**Big6™ Skills**  
Using information and synthesis

**Idaho Science Standards**  
11-12.C.1.2.3 Explain and interpret the key concepts of the kinetic molecular theory  
11-12.C.1.3.1 Identify, compare and contrast physical and chemical properties and changes and appropriate computations

**Learning Context:**  
Analysis

**Materials/Resources:**  
Large safety signs posted around the room

**Evaluation:**  
Students will compare their answers with 3 other students to compare and contrast their answers.

**Notes:**  
See attached signs
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<tr>
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<tr>
<td>Lesson Name: Gas Law Demonstrations</td>
<td>Location: Centennial H.S.</td>
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<td>Class: Chem A/B</td>
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#### Activities

**Students will find a lab demonstration that shows one of the gas laws or relationships and explain in a “Science Fair” format to other students/teacher.**

#### Big6™ Skills

- **Information Seeking** – find a demonstration to do that relates to a gas law
- **Location and access** – find materials needed for their experiment
- **Use of Information** – doing the experiment and relating it to a specific gas law
- **Synthesis** – the science fair exhibit

#### Idaho Science Standards

- 11-12.C.1.2.3 Explain and interpret the key concepts of the kinetic molecular theory
- 11-12.C.1.3.1 Identify, compare and contrast physical and chemical properties and changes and appropriate computations

#### Learning Context:

**Inquiry and Presentation**

#### Materials/Resources:

- Will depend on student findings
- LiLI-D resource – use any data base on Library website – Proquest science journals

#### Evaluation:

- Rubric of presentation of experiment
- Written explanation of why experiment is a specific gas law
- Bibliography showing source(s) for experiment must include a database entry

#### Notes:

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#### Activities
Using video/stills or animations do a voice over explaining how a “real” world gas phenomena can be explained with gas variables, kinetic theory or gas laws

#### Big6™ Skills
Use of Information – using lectures, labs and activities of gas laws and their own “real” world experiences, choose a phenomena that involves a gas. 
Synthesis – voice over presentation.

#### Idaho Science Standards
11-12.C.1.2.3 Explain and interpret the key concepts of the kinetic molecular theory
11-12.C.1.3.1 Identify, compare and contrast physical and chemical properties and changes and appropriate computations

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Learning Context:
Discovery or Relating

Materials/Resources:
Students will need pictures/clip art/video about their phenomenon
Voicethread.com

Evaluation:
Rubric – including relationship/explanation of gas law/or variable, pictures/visual that explains the law

Notes:
Must learn how to do voicethread before the I give this assignment
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### Activities
Using any crowd scenario (dance, football game, school lunch) write a story that explains 10 of the gas laws/kinetic properties using people as gas molecules.

### Big6™ Skills
- Use of information – using a list of possible gas laws/kinetic properties, apply them to their crowd scenario.
- Synthesis – creating the story and scenario.
- Evaluation – teacher evaluation (possible rubric) was each of the 10 gas laws explained, does the scenario work.
- Student takes quiz by reading another student’s story and listing the 10 gas laws/properties that he/she thinks were used.

### Idaho Science Standards
11-12.C.1.2.3 Explain and interpret the key concepts of the kinetic molecular theory
11-12.C.1.3.1 Identify, compare and contrast physical and chemical properties and changes and appropriate computations

### Learning Context:
Writing a story

### Materials/Resources:
Notes of from all the gas lectures
List of gas laws/kinetic properties that students could choose 10 from

### Evaluation:
Possible rubric, possible check list – will be teacher evaluation
Student Quiz (see above)

### Notes: