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

<table>
<thead>
<tr>
<th>Activities</th>
<th>Big6™ Skills</th>
<th>Idaho Science Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify causes of food borne illnesses</td>
<td>Task Definition</td>
<td>Standard 5</td>
</tr>
<tr>
<td>Present food safety scenarios for students to react to.</td>
<td>Information Seeking Strategies</td>
<td>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</td>
</tr>
<tr>
<td>Explore effect of varying amounts of food (sugar) on the growth of yeast, a common and safe fungus for modeling other more harmful micro-organisms</td>
<td>Location &amp; Access</td>
<td>8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)</td>
</tr>
<tr>
<td>Research food borne illness occurring in the last year. (create a chart to include illness, symptoms, annual risk of contracting illness, methods of reducing risk level)</td>
<td>Use of Information</td>
<td>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</td>
</tr>
<tr>
<td>Create a presentation on how they will reduce their risk of contracting a food borne illness.</td>
<td>Synthesis</td>
<td>8-9.ES.5.3.1 Describe the difference between renewable and nonrenewable resources. (656.03a)</td>
</tr>
</tbody>
</table>

Learning Context: food safety, causes and risks.
Materials/Resources:


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

| Subject: | Energy uses |
| Lesson Name: | Why is energy conservation important to me? |
| Class: | grades 8-9 |
| Date: | 3-12-2009 |
| Teacher: |
| Location: |
| Unit Context: | Earth Science |

**Activities**
Identify energy sources: (renewable/nonrenewable)
Identify energy uses on a typical day.
Create a collage of various uses/sources of energy
What can I do to conserve energy?
Identify a problem related to energy conservation. (state problem & develop solution)
Present and defend your solution

**Big6™ Skills**
Task Definition
Information Seeking Strategies
Location & Access
Use of Information
Synthesis
Evaluation

**Idaho Science Standards**
Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced
8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)

**Learning Context:**
Non-renewable & Renewable Resources
Advantages & Disadvantages of renewable and nonrenewable

**Materials/Resources:**


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

<table>
<thead>
<tr>
<th>Subject: Habitat pollution</th>
<th>Teacher:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lesson Name:</strong> Why is our environment important to me?</td>
<td><strong>Location:</strong></td>
</tr>
<tr>
<td><strong>Class:</strong> grades 8-9</td>
<td><strong>Unit Context:</strong> Earth Science</td>
</tr>
<tr>
<td><strong>Date:</strong> 3-12-2009</td>
<td></td>
</tr>
</tbody>
</table>

**Activities**
- Identify the types of pollution, sources of the pollution, and how can we protect the environment from further pollutants.
- Assign pollution dilemmas – role play pollution situations analysis possible solutions, provide rational.
- Select an environmental issue that is important to you – research & create a solution for resolving, and present your case
- Community service project – litter patrol

**Big6™ Skills**
- Task Definition
- Information Seeking Strategies
- Location & Access
- Use of Information
- Synthesis

**Idaho Science Standards**
- Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced
- 8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)

**Learning Context:**
Environmental issues

**Materials/Resources:**
Evaluation:

Presentation

Notes:

A dilemma example:
You are a farmer. You’ve been hearing about and even studying alternative farming practices such as organic pest control and leaving edge areas for wildlife. Although these practices may improve your long term benefits, they may reduce your short term profits. You are already having trouble paying your taxes and keeping up with expenses.
What should you do?

Solution(s) should be justified on economic, ethical, aesthetic, scientific or ecological grounds.
**Worksheet 5-5—Lesson Plan Format**  
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<table>
<thead>
<tr>
<th>Subject: water pollution</th>
<th>Teacher:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lesson Name:</strong> Why do I care about our water supply?</td>
<td>Location:</td>
</tr>
<tr>
<td><strong>Class:</strong> grade 8</td>
<td><strong>Unit Context:</strong> Earth Science</td>
</tr>
<tr>
<td><strong>Date:</strong> 3-12-2009</td>
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</table>

### Activities
- Identify types of hazardous waste found in water
- Make posters representing examples of water pollution
- Give students two minutes to perform the following activities – using a spoon, a straw, & a medicine dropper. Try to remove as much oil as possible.
  - Measure the amount of oil removed and calculate the percentage of pollutant removed using each of the tools.
  - Divide amount of oil removed by the amount of water for each technique.
  - Mark down any spills on the data chart for each technique.
  - Mark down any instances of habitat disturbance, such as water being removed with the cleanup for each technique.
  - Analyze the data collected from each group and discuss the most effective oil removal method.
- As a group research major oil spills in the world and clean-up methods, present your findings
- Community Service project – marking storm drains.

### Big6™ Skills
- Task Definition
- Information Seeking Strategies
- Location & Access
- Use of Information
- Synthesis
- Evaluation

### Idaho Science Standards
- Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced
  - 8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)
Learning Context:

Preserving our water supply

Materials/Resources:

http://www.cityofboise.org/Departments/Public_Works/Services/WaterQuality/Stormwater/page10005.aspx


Evaluation:

Presentation

Notes: