Appendix A 4Ex2 Instructional Planning Tool: Detailed Organizer

Title of lesson:
Standard:
Objective: observable and measurable
Summative assessment: aligned with objective

Engage: prior knowledge, uncovering student misconceptions, developing a scientific question that can be tested, sparking student interest in a topic
Formative assessments: pre-test, brainstorming, teacher observation, science journals, formative assessments discussed/modelled in class

Explore: giving students the opportunity to explore a concept in science; test a question; experiment
Formative assessments: teacher observation, think-pair-share, science journal, other formative assessment

Explain: helping students make sense of their exploration; guiding them to the main objectives of the lesson; helping connect the exploration to the main ideas of the lesson
Formative assessments: whole-class discussion, small-group discussion, presentations, teacher observation, science journal, rubric

Extend: connecting the main ideas of the lesson to a real-world situation or a different context
Formative assessments: teacher observation, checklist, science journal, rubric, small-group or whole-class discussion
**Appendix A  4Ex2 Instructional Planning Tool: Blank Organizer**

<table>
<thead>
<tr>
<th>Title of lesson:</th>
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<tbody>
<tr>
<td>Standard:</td>
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<tr>
<td>Objective:</td>
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<td>Summative assessment:</td>
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**Engage:**

**Formative assessments:**

**Explore:**

**Formative assessments:**

**Explain:**

**Formative assessments:**

**Extend:**

**Formative assessments:**
Appendix A  4Ex2 Instructional Planning Tool: Lesson Template

Title:

Lesson overview:

Standard:

Objective:

Materials:

Procedure:
  Engage:

  Explore:

  Explain:

  Extend:

Assessment:
  Formative assessments throughout the lesson:

  Summative assessment to measure the lesson objective: