DIRECTIONS: Draw a diagram of a seed in the box below and label important parts. On the lines, describe how seeds are adapted to produce a fully grown plant. *(LS 1-1)*

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DIRECTIONS: Draw an example of each root. On the lines, explain the difference between the two root systems and the advantages of each type of root. *(LS 3-2)*

**TAP ROOT**

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**FIBROUS ROOT**

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THE MORTON ARBORETUM • 4100 Illinois Rt 53 Lisle, IL 60532 • mortonarb.org/education • 630-719-2468
DIRECTIONS: Draw a picture of a decomposer you saw on your field trip. Identify and label parts as able.

DIRECTIONS: Answer the questions below in complete sentences.

1.) Why are producers, consumers, and decomposers important? *(LS 1-1)*

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2.) How might decomposers be adapted for life underground? *(LS 3-2)*

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# DIVERSITY IN HABITATS - Rubric

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<thead>
<tr>
<th>Standard</th>
<th>10</th>
<th>8</th>
<th>6</th>
<th>Score</th>
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<tbody>
<tr>
<td><strong>NGSS LS1-1</strong>&lt;br&gt;Describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</td>
<td>The student exceeds in making several clear and relevant observations by identifying the embryo, cotyledon, and seed coat with a thorough explanation of adaptation, and explaining the importance of producers, consumers, and decomposers in a habitat.</td>
<td>The student progressing in making observations by identifying the embryo, cotyledon and seed coat while explaining the importance of producers, consumers, and decomposers in a habitat.</td>
<td>The student struggles in identifying parts of a seed through observation and does not yet understand the importance of producers, consumers, and decomposers in a habitat.</td>
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<td><strong>NGSS LS3-2</strong>&lt;br&gt;Use evidence to support the explanation that traits can be influenced by the environment.</td>
<td>The student exceeds in creating a clear, concise, and correct explanation of adaptations in roots and decomposers to make them successful in their habitats.</td>
<td>The student progresses in explaining the adaptations of roots (tap and fibrous) and decomposers to make them successful in their habitats.</td>
<td>The student struggles in determining the difference between tap and fibrous roots and does not yet understand how adaptations make roots and/or decomposers successful in their habitats.</td>
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<tr>
<td><strong>CCSS-ELA W.2</strong>&lt;br&gt;Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement of section.</td>
<td>The student exceeds in writing an informative or explanatory text that introduces a clear and relevant topic, discusses how the producer/consumer differs in habitats AND why some habitats have the same producer/consumer and gives a clear and concise definition of decomposers. The student uses scientific vocabulary correctly.</td>
<td>The student progresses in writing an informative or explanatory text that discusses how the producer/consumer differs in habitats AND why some habitats have the same producer/consumer and gives a correct definition of decomposers.</td>
<td>The student struggles in writing an informative or explanatory text that discusses how the producer/consumer differs in habitats. The student struggles explaining why some habitats have the same producer/consumer. They student struggles identifying what decomposers are in a habitat.</td>
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<tr>
<td><strong>CCSS-ELA L.2</strong>&lt;br&gt;Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing</td>
<td>The student exceeds in conventions with no errors in capitalization, punctuation, or spelling.</td>
<td>The student is progressing in conventions with 1-5 errors in capitalization, punctuation, or spelling.</td>
<td>The student is struggling in conventions with more than 5 errors in capitalization, punctuation, or spelling.</td>
<td></td>
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**COMMENTS:**