Lesson 6: Map Making and Movement Clues

Focusing Question: How can we effectively steer visitors along our quest route?

Overview: Students decide the route that quest visitors will take, create clues to get visitors from one quest stop to the next, and sketch site icons and border strips.

Materials:
  In class:
  - Duct tape
  - Masking tape
  - Index cards
  - Markers
  In the field:
  - Pencil
  - Erasers
  - Clipboards
  - Index cards
  - Precut border strips (1.5” x 4.25”)

Length of time to complete: In-class prep: 30–45 minutes
Field trip: 2 hours

Procedures:

Establish domains (10–15 minutes)
1. Have the students sit in a large circle. Walk around the circle and say, “Let’s map our quest site right here on the floor!”
2. Using the duct tape, establish the main stem of the watershed.

3. Invite students to add roads using masking tape and note street names with marker.

4. Next, place the index cards at your key features: The starting point becomes point A, the first place to stop becomes point B and so on.

**Assign domains (5 minutes)**
5. Assign different groups the responsibility for the different domains: A to B, B to C, C to D, and so on.

**Clarify assignment (10–15 minutes)**
6. Clarify that on this field trip, each group, working in its domain, will need to create three products:
   a. A movement clue leading from their domain to the next domain (A to B, B to C, etc.). The last group leads visitors from the site to the quest’s ending point/treasure box.
   b. An icon that will represent their domain/place on the quest map.
   c. A border section that features some “teachable moment” on their site.

7. Preteach movement clues by revisiting one or more movement clues in the sample quest.

<table>
<thead>
<tr>
<th>Example</th>
<th>Teaching points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go straight down the steps.</td>
<td>A) Short lines</td>
</tr>
<tr>
<td>Count 24 cracks.</td>
<td>B) Different kinds of clues, such as counting, landmarks, body orientation, cardinal direction and so on.</td>
</tr>
<tr>
<td>Turn toward the Bay.</td>
<td>C) Aural cues to set direction</td>
</tr>
<tr>
<td>With a noisy freeway at your back.</td>
<td>D) Observations</td>
</tr>
<tr>
<td>Where wheelchairs can roll.</td>
<td>E) Using caution</td>
</tr>
<tr>
<td>You’ll cross at the stripes.</td>
<td>F) In this example, the rhyme scheme is ABCB: steps, cracks, bay, backs</td>
</tr>
<tr>
<td>Look both ways to make sure the time is right!</td>
<td></td>
</tr>
</tbody>
</table>
8. Preteach “icons” by revisiting the quest map. Students can have their icon be a word, a symbol or a realistic drawing. Have students use index cards so all icons are approximately the same size.

9. Preteach “borders” by reviewing the border segments on the sample quest. Some elements are sketches; some feature specific species; one is a rubbing. Students should be sure to stay on the watershed and habitat theme.

10. Head out on the field trip. Each group creates a movement clue, an icon and a border strip.

**Assessment**
1. Students create a movement clue.
2. Students create an icon to mark a specific site on the quest map.
3. Students create a border strip (if one has not already been created).

**Evaluation Rubric:**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>Unacceptable</th>
<th>Beginning to progress</th>
<th>Getting closer</th>
<th>Meets standard</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement clue</td>
<td>Incomplete, illegible and demonstrating a lack of effort</td>
<td>Either incomplete, illegible or demonstrating a lack of effort</td>
<td>Complete and legible, but not successful in moving visitor along the quest</td>
<td>Complete, legible and successful in moving visitor along the quest</td>
<td>Meets standard, plus is well executed and has rich details</td>
</tr>
<tr>
<td>Map icon</td>
<td>Not completed</td>
<td>Sloppy, with little attention to detail</td>
<td>Is either sloppy or has little attention to detail</td>
<td>Neat and detailed</td>
<td>Meets standard, plus is well executed and has rich details</td>
</tr>
<tr>
<td>Border Strip</td>
<td>Not completed</td>
<td>Sloppy, with little attention to detail</td>
<td>Is either sloppy or has little attention to detail</td>
<td>Neat and detailed</td>
<td>Meets standard, plus is well executed and has rich details</td>
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</tbody>
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