



Lesson 7: Watershed Research and Teaching Clues

Focusing Question: *What have we discovered about this watershed? What else do we need to know to have a full picture of the watershed's pieces, patterns and processes? Based on what we know about the watershed, what do we want to share and teach through our teaching clues?*

Overview: Students conduct further research on their watershed and quest site, decide which information is important to share with visitors, and create teaching clues for the quest.

Materials:

- Previously created student work (maps, notes, etc.)
- Paper and pencil
- Field guides, resource books and other online resources

Length of time to complete: 2 hours

Procedures:

1. Divide students into groups (2–4 students per group). Each group will be responsible for creating one (or more) teaching clues about a core element of your quest.

2. Students begin by creating a list of all the things they already know about their teaching point. This list should be neat, as they will hand it in later for a grade. (10–15 minutes)

3. Students then access primary, secondary and online resources to gather more content information. They append this new

information to the list they created for No. 2 above. (30–40 minutes)
Note: This can also be done as homework

4. Model the writing of a teaching clue. (15–20 minutes) The general process is to: (a) list what you know; (b) choose from that list what is most important to say; (c) put the list into a wellordered sequence of talking points; (d) write that list as a series of fragments or sentences; and (e) turn the sentences into your verse. An example of the process is outlined here.

- a. Make a list of what we know about the maple tree: It is big and old. It has woodpecker holes. It grew in an open field. It is a maple tree. It has an embedded strand of barbed wire. Our class saw a porcupine there.
- b. Select the three (or so) most important facts: Old, maple, habitat for birds and animals (woodpecker and porcupine facts folded together)
- c. Put these facts into an appropriate sequence:
Old → Maple → Habitat
- d. Write the facts as sentences or fragments:
This old tree
Is a maple tree
And is both food and habitat
For many species, including woodpeckers and porcupines.
- e. Draft a clue at the writing level you expect of your students. You might choose simple rhyme. Or you might pay greater attention to stanza form, meter and verse pattern: An ancient maple stands in the middle of this space. It offers many animals a gathering place. There are woodpecker holes all over this tree, And you might spy a porcupine if you look carefully.

5. Then students work on their own teaching clue, using the process outlined above. (30–40 minutes)

6. Report: Groups read what they have so far and give and receive peer and teacher feedback. (10 minutes)

Assessment:

1. Students have created an initial list of teaching points.
2. Students show results of additional research.
3. Students have created teaching clues for their assigned site(s).

Evaluation Rubric:

PRODUCT	Unacceptable	Beginning to progress	Getting closer	Meets standard	Exemplary
List of teaching points	Did not create list of points	List is both sloppy and incomplete	List is either sloppy or incomplete	List is both neat and complete	List is neat, organized and extensive
Additional research	No evidence of additional research	Little evidence of additional research	Some evidence of additional research as well as evidence of a group decision-making process	Ample research as well as full group participation	Meets standard, plus is neat, organized and extensive
Teaching clues	Writing neglects writing conventions, lacks clarity and does not teach	Writing either neglects writing conventions, lacks clarity or does not teach	Writing meets two of the three criteria (meets writing conventions, is clear, teaches)	Writing meets all three of the criteria (meets writing conventions, is clear and teaches)	Meets standard, plus has vivid descriptors, strong teaching content, and excellent meter and flow