



Lesson Plan: The Watershed Quest

Overview: Not all students live on an ocean coast, but no matter where they live, all students are connected to the ocean via their local watershed. The Watershed Quest Unit is an integrated-curriculum unit that culminates with the creation of a watershed quest, a treasure hunt centered on a watershed in your community. The quest involves sharing and learning information about watersheds in general and about the watershed in the region where the students live.

Subjects: Science, social studies, language arts, service learning

Grade Level: 5-8

Length of time to complete: Approximately 15 hours, though highly adaptable

Objectives:

Students will be able to:

- Explain the water cycle
- Diagram their local watershed
- List native species that live in their watershed
- Create rhyming clues to report what they have learned about their watershed
- Work effectively in a small group
- Draw a map of their community

Materials:

- Paper
- Glue sticks
- Pencils
- Copies of the sample quest, including the Quest for the Source Map and Quest for the Source clues (student sheet -- included in lesson #2 pdf)
- Access to the Internet (optional)
- History of Questing (teacher sheet -- included in lesson #2 pdf)
- Annotated Quest for the Source (teacher sheet -- included in lesson #2 pdf)
- Reflecting on the Quest (student sheet -- included in lesson #2 pdf)
- Reflecting on the Quest Answer Key (teacher sheet -- included in lesson #2 pdf)
- Topographic map of your community
- Magnifying lenses or loupes (optional)
- Colored pencils
- Clipboards for each student or pair of students
- Detailed site maps
- Field guides of native plants and wildlife, other resource books
- Overhead projector
- Transparency of site map
- Chalkboard and chalk or whiteboard and dry erase markers
- Duct tape
- Masking tape
- Index cards
- Markers
- Precut border strips (1.5" x 4.25" suggested)
- Glue sticks
- Computers
- Various art materials for production session

BACKGROUND

What Is a Quest?

A quest is a community treasure hunt that guides people through -- and teaches them how to see -- a unique community treasure. This treasure might be a natural feature in the community (a watershed, a park or wetlands), a cultural site (the oldest building, the first gravestone) or perhaps the setting

of a particular story (the life of a person, the home of an animal or the beginnings of an industry).

Quests can be created by individuals or small groups, by classrooms or scout troops working as a group, and by youth groups and adult community partners working collaboratively. For each quest, participants create:

- Verse clues that guide and teach questers as they move through a site.
- Quest maps that illustrate the quest and prevent visitors from getting lost.
- Hidden treasure boxes at the end of the quest, which contain a scrapbook, a sign-in guest book and a unique hand-carved rubber stamp

Once a quest has been created, children, families and adults search for the hidden boxes while they discover their community's landscape and heritage. Families can go questing on holiday outings and for children's birthday parties; daycare programs, schools and camps can utilize quests for educational field trips; tourists enjoy quests as well. All of these people benefit and learn from a quest.

On the surface, a quest seems fairly straightforward: rhyming clues, a hand-drawn map and a hidden treasure box. But that's just the tip of the iceberg. Beneath the surface is a program that teaches community landscape and heritage and that fosters a sense of place.

Quests, in general, emphasize three things:

1. Mapping the assets of our communities -- our special places
2. Teaching about these places in an integrated, multisensory and experiential way
3. Deepening community interrelationships: between children and adults, schools and communities, newcomers and old-timers, and across the various constituencies of the community

Quests can be designed and adapted to explore a wide variety of places. What follows here is an overview of a watershed quest, addressing the following essential question: Where is our water? Where is it going? Where has it been?

Procedure:

1. **Pre-Assessment:** Students show what they know about the water cycle, watersheds and their own watershed in this first set of activities.

2. **What Is a Watershed Quest?** Students are introduced to a sample watershed quest to learn what a quest is, what the core components of a quest are and which products they will be responsible for creating.

3. **What Is a Watershed?** Students investigate their own local watershed and learn to read a topographic map.

4. **Exploring Our Watershed.**

- a. Teachers: Visit the quest site alone or with an expert before taking students, to make sure it will work for your purposes. Line up an expert or specialist to aid in providing students with content knowledge (optional) and find an appropriate map of the quest site.
- b. Students will visit the quest site to develop a relationship with the site and to collect data. This lesson can be repeated with differing activities at the site as many times as desired.

5. **Reflecting on Our Watershed.** Students review what they found at the quest site -- inhabitants, themes and areas to focus their story.

6. **Map Making and Movement Clues.** Students decide on 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.

7. **Watershed Research and Teaching Clues.** Students conduct further research on their watershed and quest site, decide what information is important to share with visitors, and create teaching clues for the quest.

8. **Watershed Quest Production Session.** Students create final components of the quest, including a compass rose, a treasure map, the publication format, a quest book, a field guide, a stamp and thank-you notes.

9. **Testing and Editing Your Watershed Quest.** Students return to the quest site with volunteers to test their quest.

Utilizing notes from the testing session, students revise the quest.

10. **Post-Unit Assessment (Optional)**. Students show what they have learned about their watershed.