



8th Grade Science & Activities

COMPETENCY GOAL 2: The learner will demonstrate an understanding of technological design.
Objective 2.01 Explore evidence that "technology" has many definitions. (Artifact or hardware, Methodology or technique, System of production, Social-technical system.)

Ghost Town Site: All areas of Ghost Town in the Sky

Activity: Before the visit. Discuss the meanings of technology. Have the students give examples for each of the definitions in the objective and list them on the board or chart paper. Explain that they will be asked to notice samples for these at Ghost Town. You may want to have the students make their own copy of a graphic organizer to take with them to Ghost Town.

At Ghost Town. Have the students look for examples of "technology" throughout the park. Either have them write these on their graphic organizer or ask them to keep the examples in mind for their return to the classroom.

After the visit. Have the students add the samples they saw at Ghost Town to the examples they had listed before the trip.

2.03 Evaluate technological designs for: Application of scientific principles, Risks and benefits, Constraints of design.

Ghost Town Site: Park Entrance

Activity: Before the visit. Put the class in groups of four or five. Set up the following scenario: You have just purchased a building site for a theme park that is at the top of a mountain. It rises 3300 feet above the valley floor. The slope of the mountainside will require up to a 77% grade. In order to build at the top of the mountain and to provide a scenic method to transport your visitors, you must design methods to 1) bring building supplies and equipment to the top and 2) method(s) to transport your visitors to the entrance at the mountaintop.

- What scientific principles do you think about?
- What are the risks that are involved in this problem?
- What design constraints do you need to deal with as you create your plan?

Allow the students to plan two or three methods for transporting people and materials to the top. Ask them to keep a listing of the answers to the above questions. Have the groups present their ideas to the class.

During the visit, have students examine the technologies that were used to make Ghost Town accessible. Ask the students similarities and differences between the reality at Ghost Town and the theoretical plans they had devised.