

## Lesson 20

# Water Wheel

How did the Industrial period impact the river?  
What type of power was used?

**GOAL** To understand that Industrialism impacted the water and surrounding terrain

**OBJECTIVES** Students will:

- ✓ imagine being a factory worker during the Industrial period
- ✓ writing about their experiences
- ✓ design and create a water wheel

**MATERIALS** paper, pencils, butcher block paper, markers, popscicle sticks, modeling clay, assorted art materials for water wheel (Styrofoam, plastic, etc.)

### CORE CURRICULUM CONTENT STANDARDS

- Language Arts 2(4)
- Science 3(5), 7(8), 8(2), 14(1,2)
- Social Studies 1(1), 4((5), 9(1), 10(5,7,8)
- Arts 1(3)

**VOCABULARY** factory, Industrialism, water wheel

### PROCEDURES

1. Discuss the term, “Industrialism” with students. Ask what was significant during that time period (*factories, mass production, pollution*).
2. Ask students to describe what they would have observed by the river during that time (industry).
3. Discuss that pollution being discharged into the rivers was not as prevalent an issue as it is today. Ask them why (*no laws, pollution effects unknown*).
4. Instruct students to imagine being a worker at a factory. Describe the building inside and its exterior, how it is powered, and the health of the river.
5. Break students into groups. Distribute paper and have them describe a “typical day” at the factory. Present to class.
6. Have student groups design and create a water wheel. Have them test it.

### EXTENSIONS

1. Have students visit an old factory and create a model.

### GLOSSARY

**factory** - a building or group of buildings in which goods are manufactured.

**industrialism** - an economic and social system based on the development of large-scale industries and marked by the production of large quantities of inexpensive manufactured goods and the concentration of employment in urban factories

**water wheel** - a wheel propelled by falling or running water and used to power machinery