NOT BORING MEDIA

THE RIVER THAT FLOWS BACKWARD

High-Interest Nonfiction Reading Passage

WHAT'S INCLUDED

✓ Reading Passage ✓ Comprehension Questions
✓ Answer Key ✓ Teacher Guide

GRADES 4-6 • LEXILE ~750L • DOK LEVELS 1-4

Reading they'll actually do.

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TERMS OF USE

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WHAT'S INCLUDED

✓ High-interest nonfiction reading passage (300-400 words)

✓ 6 comprehension questions spanning DOK levels 1-4

✓ Complete answer key with explanations

✓ Teacher guide with standards, pacing, and extensions

Questions or feedback? Leave a review or message us through TPT!

THE RIVER THAT FLOWS BACKWARD

Most rivers on Earth flow in one direction: from higher elevations in mountains down toward the sea. But the Chicago River flows backward—away from Lake Michigan instead of into it. This isn't a natural phenomenon. Engineers deliberately reversed the river's flow in 1900 through one of the largest and most ambitious public works projects in history, fundamentally altering the region's geography to solve a deadly public health crisis.

Before the reversal, the Chicago River flowed naturally eastward into Lake Michigan, which also served as the rapidly growing city's primary drinking water source. As Chicago's population exploded during the late 1800s, sewage and industrial waste poured into the river, flowed into the lake, and then contaminated the very water supply that city residents depended on. Disease outbreaks became terrifyingly common. Cholera and typhoid fever epidemics killed thousands of people in multiple devastating waves.

Engineers proposed a radical and unprecedented solution: completely reverse the river's flow so that waste would drain away from the lake instead of into it. The project required digging a massive canal deep enough to change the river's natural gradient, redirecting its flow southwest toward the Mississippi River system and ultimately the Gulf of Mexico.

The Sanitary and Ship Canal took eight years to construct and required moving more earth than the famous Panama Canal project would later require. When the gates were finally opened in January 1900, the Chicago River began flowing backward for the first time in geological history. Water that had flowed east for thousands of years suddenly reversed direction.

The reversal worked brilliantly for Chicago. Waterborne diseases dropped dramatically almost immediately. However, the project created serious problems for communities downstream—cities along the Mississippi complained that Chicago was now sending its pollution their way instead. Legal battles over the river's flow continued for decades.

Today, the Chicago River is cleaner than it has been in over a century. Fish have returned, and residents kayak and fish in waters that were once essentially open sewers.

Word Count: 330 | Lexile: ~750L | Grades 4-6 | Source: Atlas Obscura

COMPREHENSION QUESTIONS

Name: _____ Date: _____

1 **When was the Chicago River reversed?**

- ◯ A) 1800
- ◯ B) 1850
- ◯ C) 1900
- ◯ D) 1950

2 **What diseases did the polluted water cause?**

- ◯ A) Cancer
- ◯ B) Cholera and typhoid
- ◯ C) The flu
- ◯ D) Malaria

3 **Why was reversing the river necessary?**

- ◯ A) For boats
- ◯ B) Sewage flowed into the drinking water
- ◯ C) To create jobs
- ◯ D) The lake was full

4 **What problem did the reversal create?**

- ◯ A) The river dried up
- ◯ B) Pollution went downstream to other cities
- ◯ C) Fish died
- ◯ D) The canal collapsed

5 **What does this project demonstrate about engineering?**

- ◯ A) Engineering always fails
- ◯ B) Solutions to one problem can create new problems
- ◯ C) Rivers can't be changed
- ◯ D) Pollution doesn't matter

6 **What lessons does this offer for modern challenges?**

- ◯ A) Big projects always work
- ◯ B) Consider effects on all stakeholders, not just immediate beneficiaries
- ◯ C) Never change rivers
- ◯ D) Pollution is solved

ANSWER KEY

The River That Flows Backward

1. C) 1900

DOK 1 — Recall.

2. B) Cholera and typhoid

DOK 1 — Recall.

3. B) Sewage flowed into the drinking water

DOK 2 — Inference.

4. B) Pollution went downstream to other cities

DOK 2 — Inference.

5. B) Solutions to one problem can create new problems

DOK 3 — Analysis.

6. B) Consider effects on all stakeholders, not just immediate beneficiaries

DOK 4 — Extended Thinking.

TEACHER GUIDE

The River That Flows Backward

STANDARDS ALIGNMENT

- CCSS.ELA-LITERACY.RI.4.1 — Refer to details and examples in a text
- CCSS.ELA-LITERACY.RI.5.4 — Determine meaning of words and phrases
- CCSS.ELA-LITERACY.RI.5.8 — Explain how author uses evidence
- C3 Framework — Historical thinking skills

PACING OPTIONS

- Quick Read (10-15 min): Passage + questions 1-4
- Standard (20-25 min): Full passage + all questions
- Deep Dive (35-40 min): Add discussion + extension

DISCUSSION QUESTIONS

- Chicago's problem became downstream cities' problem. Is this fair?
- Should engineers consider effects on distant communities when solving local problems?
- What modern infrastructure might cause problems we haven't anticipated?

EXTENSION ACTIVITIES

- Map the Chicago River's original versus current flow patterns.
- Research the legal battles between Chicago and downstream communities.
- Design a solution for a current pollution problem that doesn't shift the problem elsewhere.

DIFFERENTIATION

- Struggling: Pre-teach vocabulary, partner reading
- Advanced: Add research, compare to related events
- ELL: Visual supports, pre-teach context

SOURCE

- Atlas Obscura / Texas Monthly