

# Standard 7—Interdisciplinary Problem Solving Elementary

## Connections

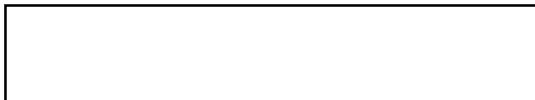
## Strategies

**1. The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.**

**Students:**

- **analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action.**
- **make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice.**
- **design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute.**
- **observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions.**

*This is evident, for example MC IID 4 >c1,sts:*



Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

## Skills and Strategies for Interdisciplinary Problem Solving

**Working Effectively:** *Contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working alone or as part of a group.*

**Gathering and Processing Information:** *Accessing information from printed media, electronic databases, and community resources and using the information to develop a definition of the problem and to research possible solutions.*

**Generating and Analyzing Ideas:** *Developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data.*

**Common Themes:** *Observing examples of common unifying themes, applying them to the problem, and using them to better understand the dimensions of the problem.*

**Realizing Ideas:** *Constructing components or models, arriving at a solution, and evaluating the result.*

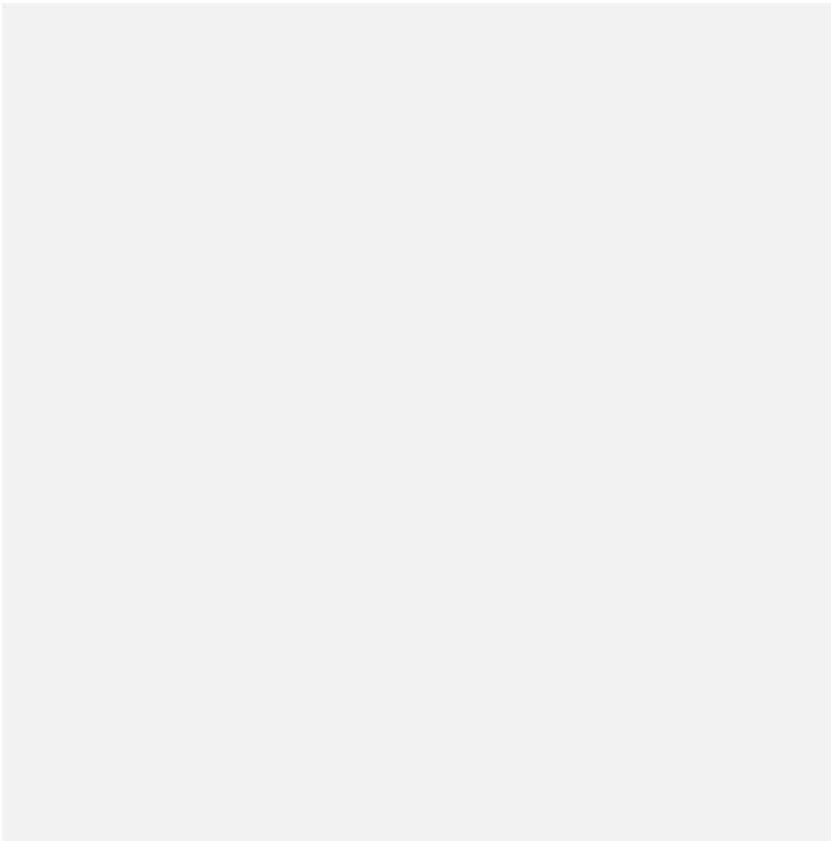
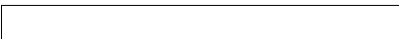
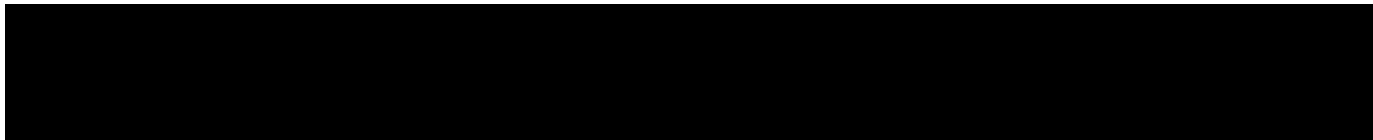
**Presenting Results:** *Using a variety of media to present the solution and to communicate the results.*

### Sample Problem/Activity

# How much of Earth's water is readily available for human consumption?

Student Worksheet





# Standard 7N Interdisciplinary Problem Solving

Commencement

## Connections

## Strategies

**1. The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating**

