

# Infiltration: Groundwater Flow Model I

**Skill: Science**

## Objectives

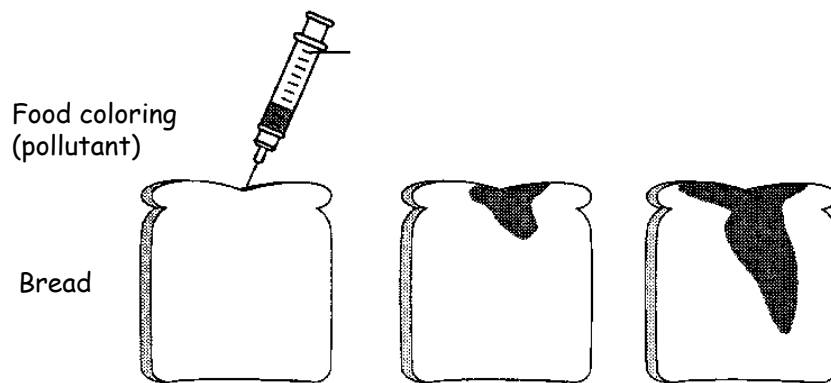
Students will:

- demonstrate how water infiltration can carry pollutants underground.

## Procedure

- Divide students into teams of four individuals.
- Have one student hold a slice of bread vertically while a second student adds a drop of food coloring (pollutant) to the crust edge of the bread. See illustration No. 1.
- Then have a third student spray water on the food coloring to simulate precipitation.
- Allow drainage to seep through the crust of the bread. As the polluted water seeps down it spreads out making it difficult to locate where the pollution originated. The water and food coloring will remain together as the water moves.

This illustrates visually how pollutants are carried by water, that pollutants are not filtered out by the ground, and that human activities can affect groundwater.



No. 1 Influence of water on pollutants

## Discussion and Evaluation

1. Did the pollutant (food coloring) continue through the bread or was it filtered out, leaving only clean water to progress downward?
2. Did the water spread out or go straight down?

Used with permission from A Hidden Treasure, National Vocational Agriculture Teachers Association, Jeff Moss, Project Manager, 116 Sheringham, Normal, Illinois 61761.

## Vocabulary

- infiltration
- pollutants

## Materials

- Food coloring to represent pollutant
- slices of bread
- a sprayer to produce rainwater
- waterproof work area

## P.A.S.S. 4th Grade Science

- Process 1.1, 3.1,3, 4.4, 5.4

## 5th Grade Science

- Process 1.1, 3.1,3, 4.4, 5.4
- Life 2.2

## 6th Grade Science

- Process 1.1, 3.1,3, 4.4, 5.4
- Earth 5.2

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