

## EXPERIMENT 19: Water Treatment Process

**Challenge:** Learn how water that falls from the sky and runs underground gets cleaned up and ready to drink!



### WHAT YOU NEED:

- Access to internet:  
<http://www.epa.gov/safewater/kids/watertreatmentplant/index.html>

### STEP-BY-STEP:

- 2.** Follow a drop of water from the source through the treatment process. Stop at each treatment point to show where the water is along the treatment path.

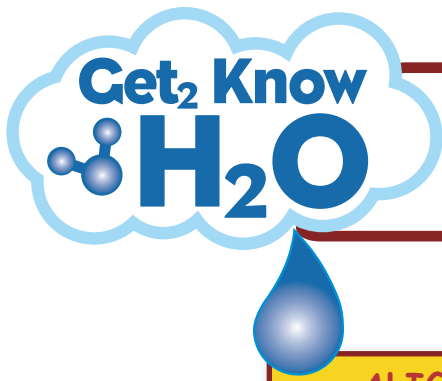
- 1.** Go online to the website link provided.

- 3.** Click on each treatment point found on the image to reveal a little information about that point. Make sure you understand the processes of coagulation, sedimentation, filtration, disinfection, and storage.

### QUESTIONS:



- Does water need to be as pure for you as it does for your lawn? Search online for information on primary, secondary and tertiary water treatment systems. Which method is safest for humans?
- Can you make other liquids safe enough to drink? How do astronauts get clean water up in space?



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## Instructor's Guide

### ALIGNMENT WITH ILLINOIS STATE BOARD OF EDUCATION GOALS

#### State Goal 11:

Section A: 2a and 2b

Section B: 2a, 2b, 2c, 2d, 2e and 2f

#### State Goal 13:

Section B: 2b and 2e



### WHAT'S HAPPENING?

Water may be treated differently in different communities depending on the quality of the water that enters the plant. Groundwater is water located under ground, and it typically requires less treatment than water from lakes, rivers, and streams.

This lesson is all about tracking the processes that occur at a real water treatment plant. This becomes even more educational if the school can arrange a field trip after studying the process in class.

### WHAT COULD GO WRONG?

Nothing unless the web goes down.

### LINKS

[www.epa.gov/safewater/kids/watertreatmentplant/index.html](http://www.epa.gov/safewater/kids/watertreatmentplant/index.html)

### CREDITS

Environmental Protection Agency

### WHAT ELSE CAN KIDS LEARN?

#### Solutions built to scale

Ask the students what kind of model they would build if they wanted to test a new way to make water safe to drink.

### YOUR FEEDBACK

Were the instructions clear? Did the class stay interested? Email us at [feedback@Get2KnowH2O.org](mailto:feedback@Get2KnowH2O.org) and let us know what you think. We would like to share your suggestions with other teachers and give you credit for your great ideas!