

WONDERFUL WATER

2022 Ohio Cloverbot Challenge

We use water everyday: to drink, cook, take a bath, wash dishes and laundry. But did you also know that water provides energy and transportation, aids in manufacturing and perhaps most importantly, helps grow our food? Water is critical to our survival.

Explore Water

Cloverbud Teams will explore this most important resource. As a team, ask:

- What are the properties of water?
- What affects water quality?
- What are local examples of water quality issues?
- What are ways that we use water?

The Challenge

Identify an impact factor and create a solution to the selected problem.

Example

You wash your family's truck in the driveway. Soap and cleaners runoff and eventually end up in the water supply. Cloverbuds create an elevated truck platform with a special filter that purifies the water before it goes back into the water supply.



Let's Begin! Learn About Water

Below are online resources and activities you can use to help your Cloverbuds learn more about water.

Information about water in Ohio

<https://ohiodnr.gov/discover-and-learn/safety-conservation/about-ODNR/water-resources>

Focus on rivers and lakes

Printable games to help understand storm water

<http://extension.usu.edu/waterquality/htm/kidspage>

Water cycle information from the EPA

http://water.epa.gov/learn/kids/drinkingwater/kids_k-3.cfm

<https://www.epa.gov/watersense/watersense-kids>

Info about drinking, ground water, and watersheds

<http://ag.arizona.edu/waterquality/activitiesindex.html>

Clean Water STEM Challenge

Construct a working water filter from a 2-liter bottle

<https://go.osu.edu/cleanwaterchallenge>

Ohio 4-H Self Determined Project Idea Starter

365.18 Ways of Knowing Water

<https://go.osu.edu/waysofknowingwater>

Glossary

Aquifer: A geological formation that stores and/or transmits water, such as to wells and springs.

Groundwater: Water that flows or seeps downward and saturates soil or rock, supplying springs and wells.

Non-Point Source (NPS) Pollution: Contamination that occurs when rainwater, snowmelt, or irrigation washes off plowed fields, city streets, or suburban backyards. As this runoff moves across the land surface, it picks up soil particles and pollutants, such as nutrients and pesticides

Water Quality: the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose

Watershed: the land area that drains water to a particular stream, river, or lake.



Challenge Guidelines

- Teams must have at least two, but no more than eight members. All participants must be 4-H Cloverbud members
- Models must be constructed in an area no larger than 15"x15". A baseplate is recommended.
- Any type and quantity of interlocking bricks (i.e.: Mega Blocks, LEGOS) may be used.
- Models must feature a moving part or simple machine (lever, wedge, incline, wheel and axle, pulley, screw).
- Poster must include team name and members' names. Use the poster to highlight the overall experience.
- Rewards will be presented to all teams. Teams must be present at the Challenge in order to receive rewards.



Timeline

First Meeting

- Explain the Cloverbot Challenge
- Find out what children know about water: uses, sources, properties, etc.
- Facilitate a water activity
- Distribute a parent handout explaining the Ohio 4-H Cloverbot Challenge. Include the dates of your meetings, field trip information, and the date, time, place of the event.

Second Meeting

- Facilitate a water activity
- Review the Challenge Problem
- Brainstorm a list of project possibilities and select a focus

Subsequent Meetings

- Field trip/ Videos
- Construct project model
- Create a project poster
- Continue water activities

The Event – Multiple Locations This Year!

Date: Thursday, June 23

Time: 6:30 p.m.

Where: Montgomery County Extension Office
580 Calumet Lane
Dayton, OH

or

Washington Co Fairgrounds – Jr Fair Building
922 Front St.

Marietta, OH 45750

Questions: Washington Co Extension Office
740-376-7431

Date: Saturday, June 25

Time: 10:30—noon

Where: Nationwide & Ohio Farm Bureau 4-H Center
2201 Fred Taylor Drive, Columbus, OH 43210

Team Registration

Cost

There is no cost for clubs to register for the Ohio 4-H Cloverbot Challenge. Returning teams may use their kits from previous years. New teams may use their own interlocking blocks and base plates or may purchase a kit at half the cost.

ALL TEAMS MUST REGISTER AT THIS SITE:

Deadline to register: May 27, 2022

<https://go.osu.edu/2022cloverbotchallenge>

ORDER A KIT

Teams needing a kit may order one at a reduced rate thanks to funding from the Ohio 4-H Foundation!

Reduced Kit Cost: \$180 (maximum of 10 kits available)

Order Deadline: Checks must be received by April 30 to receive a kit at the discounted rate.

Make \$180 Check Payable To: OSU Extension, Preble County

Mail to: Ohio 4-H Cloverbot Challenge
c/o Nancy Tilton
722 S Franklin St.
Eaton, OH 45320

Include: Club Name; County; Team Advisor Name;
Contact Phone Number; Email Address

Questions?

Christy Millhouse
millhouse.10@osu.edu