



## Going **WILD** with the 2024 Ohio 4-H Cloverbud Engineering Adventure

Whether imagining the jungles of Southeast Asia, learning about the natural wonders of United States National Parks or exploring nature in their own backyard, this year's Cloverbud Engineering Adventure will get Cloverbuds thinking about the world we live in. Cloverbuds will explore the idea of habitats and what habitats provide for the animals and plants that live there. They will have opportunities for discovery, creativity and problem solving as they explore habitats that are around them or learn about ones that are in other parts of the world.



### The Challenge

*Choose a habitat that Cloverbuds are interested in learning about. Create a model of the habitat that includes animals and/or plants that you might find. Include a moving part in your habitat. That could be a jeep that takes you around the habitat or a tower that has a moving part to get you to the top of the tower. Be creative and let your imagination work!*



### Go WILD with learning

Cloverbud Teams will think about:

- What is a habitat? What do habitats provide for the plants and/or animals that live there?
- What habitats do we have in Ohio?
- How are habitats outside Ohio different?
- What type of diversity do you see in different habitats?

### Examples



- Your Cloverbud team takes a walk in a local park and observes plants and animals that live there. The team creates a model of that habitat.
- Your Cloverbuds want to learn about an ocean habitat. They research oceans and create a model that shows animals that live in the ocean.
- Your Cloverbuds imagine a plant or animal that does not exist and creates a model of the plant or animal and the habitat in which it lives.



## 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 axel, pulley, screw).
- Poster/Tri-fold 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.



## Need Interlocking Blocks?

**Returning teams** may use kits from previous years.

**New teams** may use their own interlocking blocks and base plates or may purchase a kit at a reduced cost.

### 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:** \$170 (maximum of 12 kits available) **Order Deadline:** Checks must be received by **April 19** to receive a kit at the discounted rate.

**Make Check Payable To:** OSU Extension, Greene County Mail to: Ohio 4-H Cloverbud Engineering Adventure c/o DeAnna Laudermilk; 100 Fairground Road Xenia, OH 45385

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

## Team Registration

### Cost

There is no cost for clubs to register.

**Deadline to register: April 19, 2024.**

### ALL TEAMS MUST REGISTER HERE:

[2024cloverbudengineeringadventure](https://2024cloverbudengineeringadventure)



## Questions?

Contact Christy Millhouse - [millhouse.10@osu.edu](mailto:millhouse.10@osu.edu)

## Project Showcase – Choose Your Location!

**Date: Wednesday, June 12**

Time: 6:30 p.m.

Robert Fulton Agriculture Center

8770 State Route 108

Wauseon, OH 43567

Questions: Fulton County Extension Office – 419-337-9210

**Date: Thursday, June 13**

Time: 6:30 p.m.

Where: Greene County Extension Office

Questions: Greene Co Extension Office - 937-372-9971

**Date: Wednesday, June 19**

Time: 5:00 p.m.

Perry County Fairgrounds

5445 State Route 37 W.

New Lexington, OH 43764

Questions: Perry County Extension Office – 740-743-1602

**Date: Thursday, June 20**

Time: 6:30 p.m.

Where: Washington Co Fairgrounds – Jr Fair Building

Questions: Washington Co Extension Office 740-376-7431

**Date: Saturday, June 29**

Time: 10:30 a.m.

Where: Nationwide & Ohio Farm Bureau 4-H Center

2201 Fred Taylor Drive, Columbus, OH 43210

Questions: [millhouse.10@osu.edu](mailto:millhouse.10@osu.edu) – 614-247-6004

Watch this short video to learn more about the Cloverbud Engineering Adventure: <https://youtu.be/xrOrb3N37p0>

# 2024 Cloverbud Engineering Adventure: RESOURCES FOR CLUBS

## Meeting Timeline

### First Meeting

- Explain the Cloverbud Engineering Adventure
- Find out what children know about the topic.
- Facilitate an activity related to the topic
- Distribute a parent handout explaining the Cloverbud Engineering Adventure. Include the dates of your meetings, field trip information, and the date, time, place of the event.

### Second Meeting

- Facilitate an activity related to the topic
- Review the Challenge Problem
- Brainstorm a list of possible projects; select a focus

### Subsequent Meetings

- Field trip/ Videos.
- Construct project model and create a project poster
- Continue activities related to the topic
- Practice presentation and sample interview questions.

## Project Showcase – What to Expect



### When You Arrive

- Check In at the Registration Table. Prior to checking in, complete the registration form with list of participants. You will receive this ahead of the event.
- Set up your poster/trifold and project in your club's designated area. Allow your Cloverbuds to set up as much as possible. Practicing in your meeting prior to the showcase will give them confidence.

### During the Showcase

- Your club will be called to your display when it is your turn to present.
- An adult interviewer will listen to your Cloverbuds share about their project and will ask questions. Help your Cloverbuds be prepared by practicing a short presentation and answering questions. Questions will relate to what has been shared and activities done during meetings.
- When your club is not presenting, there will be fun activities available to participate in.



# 2024 Cloverbud Engineering Adventure: RESOURCES FOR CLUBS

## Time to Learn! – Resources for Meeting Activities

### FROM THE BIG BOOK OF 4-H CLOVERBUD ACTIVITIES

#### Habitats Are Homes - page 113

All activities are relevant

#### Wildlife – page 117

Getting Familiar with Wildlife – page 118

Nature Walk – page 118

Food Chain – page 118

Ecosystem Fun – page 119

#### Our Feathered Friends – page 212

Where They Live: Make a Bird Nest – page 214

#### Ant Antics – page 222

Observing an Ant Colony – page 224

Our Very Own Ant Farm – page 225

#### Nature Fun – page 85

Sounds of Nature Hike – page 86

Circle of Earth – page 85

Pond Sample – page 87

I Spy in Nature and Animal Simon Says – page 88

### 4-H CLICK AND DO ACTIVITIES

<https://u.osu.edu/cloverbudconnections/click-it/>

- The Wonderful World of Worms
- Sights, Sounds, Smells of Autumn
- Be a Nature Detective
- Create a Pet
- Nature Color Match
- Cloverbud Insect Detectives
- Spark the Joy of Hiking

### 4-H CLOVERBUD CONNECTIONS

- From Polliwog to Grown Up Frog – November 6, 2023
- The Nature Connection: Get Your Cloverbuds Outside with Scavenger Hunts – July 14, 2023
- Fall Fun in the Great Outdoors – November 8, 2021
- A Long Winter's Nap – February 22, 2021

### CLOVERBUD READING ADVENTURES DESIGNED TO GO WITH THE 2024 CHALLENGE:

- Home for a Tiger, Home for a Bear by Brenda Williams
- The Umbrella by Jan Brett

You can find these and more at

<https://u.osu.edu/cloverbudconnections/reading/>

The *Ohio Department of Natural Resources* provides many great resources. You can download Ohio Wildlife Field Guides,

<https://ohiodnr.gov/> (Click on Discover and Learn)

The *National Park Service* also has a variety of lesson plans available for the K-2 audience.

[go.osu.edu/npscloverbudageresources](https://go.osu.edu/npscloverbudageresources)

**PBS** The Ohio Learns 360 collection has a Nature Camp Wild for Ohio Camp, and Animal Adventures Camp that include activities and informative videos. These are virtual resources available for free.

Helpful information about Ohio habitats

[https://ohiodnr.gov/static/documents/coastal/ohio-coastal-atlas/CH06\\_EcosystemHabitat.pdf](https://ohiodnr.gov/static/documents/coastal/ohio-coastal-atlas/CH06_EcosystemHabitat.pdf)

### FIELD TRIP IDEAS

- Franklin Park Conservatory – Columbus, Ohio  
The Scotts Miracle-Gro Foundation Children's Garden celebrates the Ohio landscape.

- Virtual Field Trips

<https://www.nature.org/en-us/about-us/who-we-are/how-we-work/youth-engagement/nature-lab/virtual-field-trips/>

### VIDEOS (includes read alongs and fun songs)

Habitats for Kids (overview of habitats)

<https://www.youtube.com/watch?v=40B2ljLWfTQ>

Bill Oliver's Habitat Song:

Find the lyrics here:

<https://www.songsforteaching.com/jeffschroeder/habitat.htm>

Habitat Guessing Game:

[https://www.youtube.com/watch?v=dyd0u\\_rOACI](https://www.youtube.com/watch?v=dyd0u_rOACI)

I Can't Live Here - A Science Story for Kids:

<https://www.youtube.com/watch?v=zt1jvQUa14w>

Over in the Meadow song:

<https://www.youtube.com/watch?v=x7jwJ2bl9Lg>

Wild World: Natural Habitats of Ohio

<https://u.osu.edu/immersiveagricultural experiences/2021/09/20/wild-world-natural-habitats-of-ohio/>