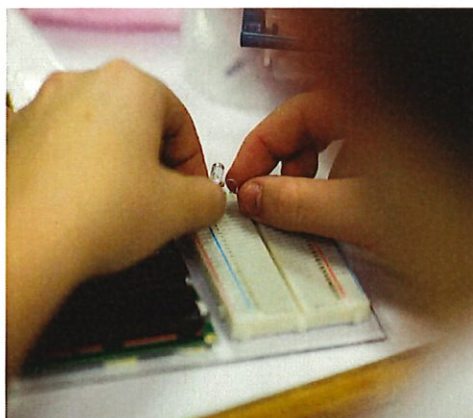


4-H Inspire Kids to Do Activity Guide



**Inspire kids to do all year long with fun,
skill-building activities.**

TIP: You can print this or save a digital version for new ideas anytime. Many of the activities are shown as an abbreviated version—just visit the web page listed for each activity to get the full version with additional instructions and information!

 **30 DAYS**
OF DOING

Butterfly Parts and Marks

Activity

Learn how to identify and describe a butterfly using body part names and field marks.

► Learn more 4-H.org/Butterfly



Field marks



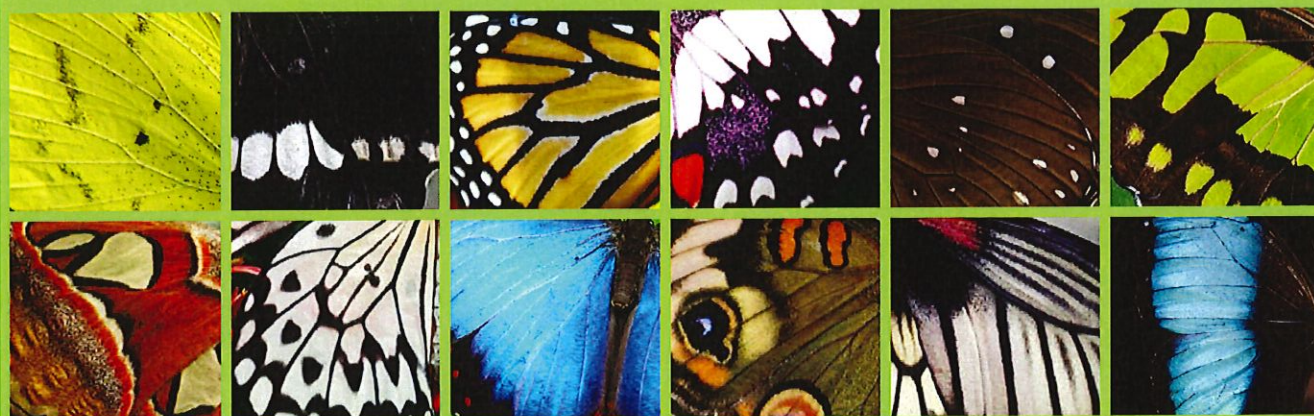
Field marks are the characteristic colors, patterns, shapes and sizes that enable you to accurately describe and identify butterflies.

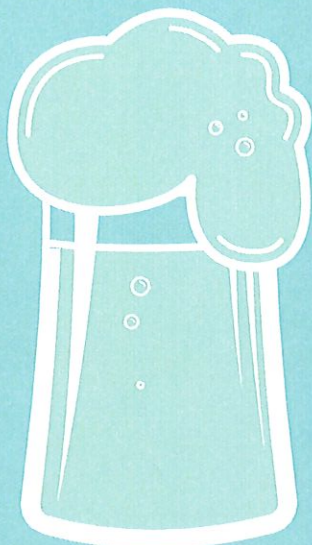
Insect anatomy



Colors & patterns

Colors and patterns help butterflies in different ways. Certain markings warn predators they taste bad. Some colors can attract mates. Dull colors help the butterfly blend into its environment, and eyespots and flashy colors scare or startle predators. Dark colors help warm the butterfly's body. Sometimes the male and female of one type of butterfly has different field marks. Which defenses do these butterflies have? Colors? Markings?





Fizzy Foam Fun

Teach kids how chemical reactions are impacted by a catalyst.

A catalyst is a material that speeds up reactions but doesn't react itself. In this case, we'll create a colorful foam fountain by adding yeast to a mixture of chemicals.

Questions to engage kids:

- What did you observe before adding in the water and yeast?
- What changed when you added in the mixture?
- What do you notice if you touch the bubbles?

► Learn more 4-H.org/FizzyFoam

1

Combine warm water and yeast in a bowl and set aside. Put bottle in the baking pan to avoid mess.

2

Pour hydrogen peroxide into bottle. Add in a few drops of food coloring and a couple squirts of dish soap.

3

Pour water/yeast mixture into bottle. Remove funnel quickly and stand back.

Brought to you by HughesNet and The Ohio State University



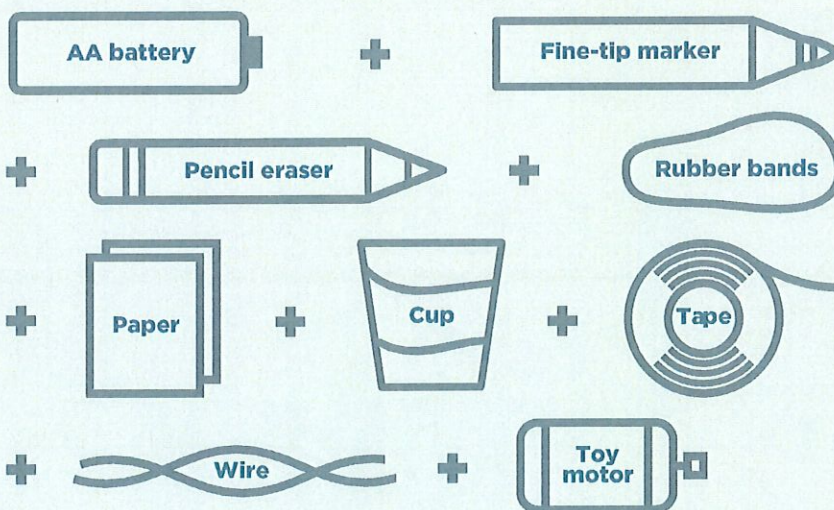
Grow vegetables in an egg carton.

Learn how to cook and preserve them.

► Visit: 4-H.org/GrowVegetables
4-H.org/FoodPreservation

Can-Can Robot

Learn how moving and non-moving parts interact when building a machine.



► Get the full instructions for this activity at 4-H.org/Robot

Brought to you by HughesNet, University of California Agriculture and Natural Resource and Nebraska Extension

Low-Cost Robotic Hand



Supplies



Hand Template

+



5 Straws
with a bend

+



String
five 24-inch
pieces

+



Pair of
Scissors

+



Glue Gun

+



Glue Sticks

Description

An outstanding Georgia 4-H'er, Nicholas, created a YouTube channel full of low-cost projects to ensure that ALL children have opportunities to learn about STEM and get excited about science. [Check out his video](#) on how to build a robotic hand for less than \$0.50.



Activity Steps

1. Print out hand template from 4-H.org/HandTemplate
2. Cut out hand template.
3. Fold each line on the template toward the palm of the hand.
4. Lay straws on each finger cutting them to match the template.
5. Cut each straw into 3 parts (1 cut on the second line down on the finger, 1 cut on the palm).
6. Glue straw pieces to the template.
7. Repeat steps 4-7 for each finger.
8. Put a string through the pinky finger and pull the string to the bottom of the other side of the hand.
9. Glue the string to the back side of the hand.
10. Repeat for each finger.

- For hand template, visit 4-H.org/HandTemplate
- For video instruction, visit 4-H.org/RoboticHand

Get to Know



Sophia, Georgia 4-H

Sophia developed the program "Tie-Dye for Troops" with her 4-H agent to help kids understand mental health issues and how to deal with challenges.

► Visit 4-H.org/Sophia

Classify Animals

Description

Learn how to identify and classify animals. We'll focus on learning the classes of vertebrates in this matching activity.

Activity Steps

1. Read information about the classes of vertebrates at 4-H.org/WildAnimals
2. Complete the table by writing the vertebrate classes for the pictures shown.
3. Visit your local zoo, nature trail or park to see if you can spot them up close and share the facts you learned.

Supplies



Paper &
Pencil/Pen



30 minutes | Grades: 3-5, 6-8, 9-12

Pillows for the Homeless

Supplies



Description

This is a simple, inexpensive, lightweight and helpful item to make that teaches kids that we can all help someone in need in small but meaningful ways.

Activity Steps

1. Cut the shopping bags up into pieces and crumple them into small balls for stuffing.
2. Sew 3 sides of the towel together and stuff with bags.
3. Hand sew the last side.
4. Contact a local shelter to donate your finished pillows, or carry some in your car with various other hygiene supplies and non-perishable food items to give to community members in need.



Thanks to Analynn,
Tennessee 4-H

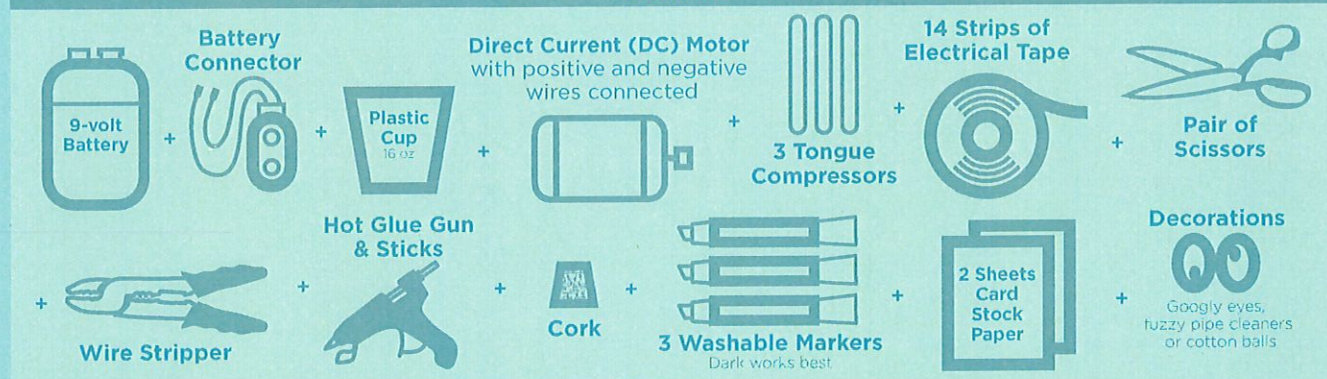
Building an Art Bot

Description

The Art Bot is an activity that allows students to build a robot that can draw by itself. This activity teaches students how a basic electrical circuit is built. **Bonus:** Most of the supplies can be recycled from other materials.



Supplies



Activity Steps

1. Use electrical tape and **tape** the 3 tongue compressors to the cork.

2. Take the **cork** and gently place the cork on top of the direct current (DC) motor with positive and negative wires connected, using the prong on top of the motor to make a hole on the cork to connect the cork and motor together. Remove the cork and it will be placed back on top of the motor at a later step.

3. **Cut a hole** on the top of the cup for the wires of your DC motor to fit through.

Use the DC motor to measure and it should sit flush on top of the cup. Do not attach the motor at this time.

4. **Cut** two 1/2-inch slits on cup's side.

5. **Tape** the 9-volt battery to the inside of the cup with 2 strips of tape on the opposite side of the two slits on the cup.

Place the battery with positive and negative connectors facing downward on the cup.

6. Using the **wire stripper** on the DC motor and the battery connector, crimp each wire to remove the plastic covering, leaving only the copper wires.

7. In a triangular shape, **tape** one marker to each side of the cup.

Use two strips of electrical tape per marker. Do not tape on the sides of the cup where you made the slits in Step 4. The markers can fit in front or behind the slits.

8. **Twist** the DC motor wires and battery connector wires together.

The red wires must twist together from the motor to the battery connector and, depending on the color of your second wire (either black or blue), must be twisted with the appropriate color from the motor to the battery connector.

9. Once wires are twisted, **tape** them together with electrical tape.

10. Feed the battery connector through the cup gently, with the DC motor sitting on top.

11. Test your **connection**.

Make sure you are connecting the positive side to the positive side of the battery and the negative to the negative on the battery. If the motor turns, you've done it! If the motor does not turn, check the wire connections and repeat until the motor turns when connecting the battery connector to the battery.

12. Place hot glue on the cup or the motor to glue the motor to the top of the cup.

If you melt the cup, place a strip of electrical tape across the top of the cup and cut another hole through the tape. This will allow you another base to glue the motor onto the cup.

13. **Decorate** the Art Bot with googly eyes, pipe cleaners for arms and a cotton ball for the nose.

14. **Place** a sheet of card stock paper under the Art Bot.

15. **Connect** the battery connector to the battery, matching the positive and negative on the connector and battery. Then, **place** the Art Bot onto the card stock paper.

OPTIONAL STEP: Add more weight to the sides of the cup with magnets to steady its drawing, as well as make it draw in different directions.

Enjoy watching your Art Bot draw by itself. Watch the Video Tutorial at 4-H.org/ArtBot

Thanks to Emilee, Oklahoma 4-H



Homemade Bath Fizzies

Description

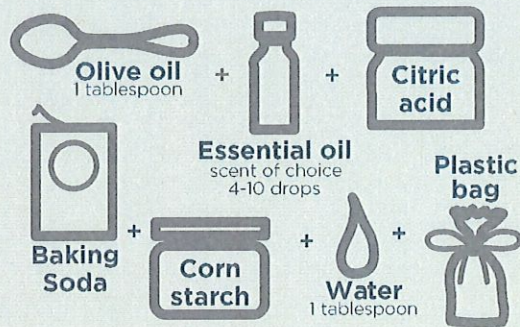
Learn how to make homemade bath bombs. They make great gifts!

Activity Steps

1. Mix olive oil and essential oil together in bowl.
2. Mix baking soda, cornstarch and citric acid together in separate bowl.
3. Make indentation in center of mixture and drizzle olive oil mixture into indentation; mix well.
4. Add water, a little at a time, and blend - adding water causes fizzing. Absorb water in cornstarch as much as possible so the fizzle does not fizz while you are mixing ingredients.
5. Once blended, scoop out 1 tablespoon of mixture. Shape into a ball, squeezing tightly. You can also use a mold, like a decorative cookie mold.
6. Allow to dry overnight before packaging.
7. Place in cellophane bags and tie off with ribbon.

► Check it out at 4-H.org/BathBomb

Supplies



All Ages

How to Be a Record Breaker



Description

Have you got what it takes to earn a genuine Guinness World Record certificate? Learn how to apply!



Activity Steps

1. Apply Online. (guinnessworldrecords.com)
2. Get the guidelines.
3. Attempt your record.
4. Have fun with it and get creative with your ideas.
5. Send your evidence.

Brought to you by Guinness World Records

► Get the full details here: 4-H.org/RecordBreaker



Make Someone Happy

Make and deliver cheerful cards to local senior citizen homes.

Tie-Dye for Troops

Description

Tie-Dye for Troops is a mental health awareness activity for kids that uses colors, creativity and comic books to ensure an open conversation about feelings.

By tie-dyeing pillowcases and discussing the mix of emotions, every child is assured that, although feelings can be messy and confusing, it is okay to feel different.

Supplies



+



+



+



Mixture:
Soda Ash & Water
1 cup soda ash
1 gallon water

+



+

Pillow Cases



+



Discussion Guide

Start a discussion to connect the activity to emotions. Start with colors:

- Ask what your child (or group of kids) thinks about a certain color, and whatever the consensus is, disagree with it.
- Question the group whether it is okay or not okay to not agree with the majority.
- Question them about other colors and hobbies (pass around the super pillow to give each kid an opportunity to speak).

Explain how **feelings** are like tie-dye—they can be mixed up and confusing—and how tie-dye still ends up being beautiful.

Introduce the pillow's purpose: to be a friend, secret keeper, punching bag, etc. A way to privately let out your feelings until they're ready to share them with a trusted friend, parent or confidant.

Activity Steps

1. Give each child a pillowcase and write their name on it.
2. Pass out rubber bands and show them some tie-dye folding techniques.
3. Allow them to twist and fold their cases; wrap them in rubber bands.
4. Allow them to freely dye their pillowcases for 5-7 minutes.
5. After, have them put their pillowcases in a bag and write their name on the bag.
6. Let the pillowcases sit for 24 hours.
7. Rinse them until the water runs clear (this step is very important) and leave to dry.



Thanks to Sophia, Georgia 4-H

Be-YOU-tiful Mirror Craft

Description

Create a Be-YOU-tiful Mirror Craft to give kids (especially tween girls) a tool to encourage a positive self-image.

Activity Steps

1. Cover the table/surface to protect it.
2. Set out mirrors and supplies.
3. Print quotes to write on mirrors.
4. Have fun decorating your mirrors!
5. Start a discussion about the emotions or negative feelings that this mirror may help you and your kids overcome to encourage an open dialogue.

Supplies



Decorations

Faux flowers, glitter, pom-poms, stickers, list of empowering quotes



Thanks to Molly, Ohio 4-H

Yoga



Set a time for a family yoga session to release stress and introduce the concept of mindfulness.

Brought to you by JOANN

60 minutes | Grades: 3-5, 6-8

Painted Fabric Wall Art

Description

Learn how to transform painted cotton fabric into bold, abstract wall décor. You'll learn how to paint on fabric, then "frame" your fabric into embroidery hoops. The finished pieces are lightweight and easy to hang.



Activity Steps

1. Spray fabric with water.
2. Brush paint on fabric in desired pattern.
3. Let fabric/paint dry.
4. Lay out embroidery hoops in desired area.
5. Cut fabric around hoops.
NOTE: Leave 1 inch on outside of hoop as extra.
6. Place fabric over inside ring and place outer ring on top. Pull fabric to be snug and tighten hardware of embroidery hoop.
7. Hang on wall.

Supplies



► For the full tutorial, check out 4-H.org/WallArt



Garden of Greatness

Description

This activity will help young kids think about and recognize positive traits within themselves and others in a fun and creative way, while creating a classroom or home “flower” display.

Supplies



Bulletin Board or Display Area

+



Stapler and Staples

+



Masking Tape

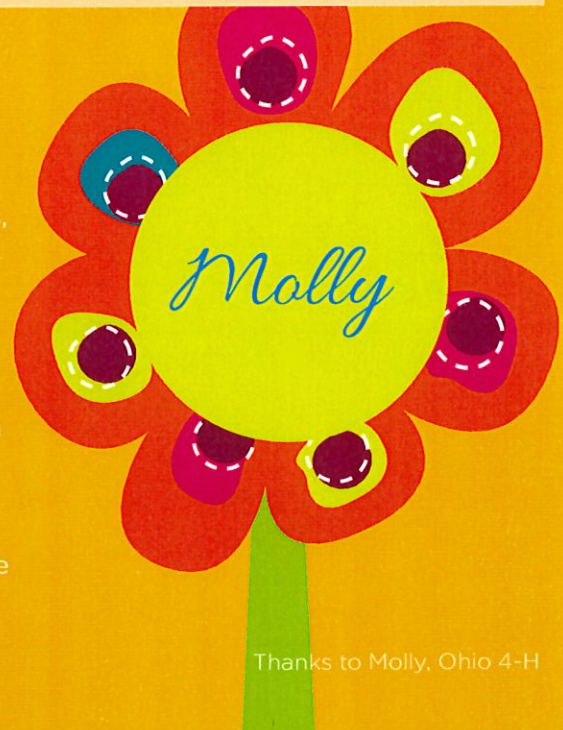
+



Construction paper, cut into circles (1 circle per child) and strips wide enough to write on (4-8 strips per child)

Activity Steps

1. Give each kid a circle with their name on it, and four to eight strips of colored paper.
2. Instruct them to write down things they love about themselves, or something they enjoy doing, on the strips. If they're having trouble thinking of things, ask their friends or siblings to list their great qualities.
3. Once they have their petals completed, help them tape each strip onto their circle.
4. Staple or tape each flower to the bulletin board or display area (the refrigerator works great too) while calling out at least one great thing about each kid.
5. Discuss how they are all unique with different qualities and interests, and how all their individual strengths and traits create a Garden of Greatness.



Thanks to Molly, Ohio 4-H