



Clinton County 4-H Cloverbud Handbook



The following 4-H resources were used in this publication:

Welcome to 4-H
Airedalees to Zebras
Big Book of 4-H Cloverbud Activities
Exploring Farm Animals
Getting Started in Art
Hatching Classroom Projects Helpers Guide

Ohio's 4-H Cloverbud Program Series I
Palette of Fun Arts & Crafts
Pre-Flight Aerospace Activity Guide (1-3)
Que Rico! La Cultura
See Them Sprout
Step Up to Leadership Mentor Guide (K-5)

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COUNTY 4-H CLOVERBUD AWARD APPLICATION

Complete one Handwritten 4-H Cloverbud Award Application per member.
If the completed application is received, the member will be given a participation award.

4-H Cloverbud member for _____ year(s).

Complete show and tell at your meeting	Yes	No
Exhibited project at the County show	Yes	No
Completed activities in project books	Yes	No

Projects/Activities

List 4-H projects completed this year:
Example: Visual Arts/Fiber Monster Pillow

List any club or county events attended excluding meetings:
Example: Dairy Days, County Fair Parade, Ninja Warrior, Fundraiser

Questionnaire

What did you learn this year:

What do you want to learn about next year:

Favorite things in 4-H this year were:

Submit Drawings of 4-H project or 4-H activities.

The application is available on our website—
https://extension.illinois.edu/sites/default/files/cco_cloverbud_award.pdf

Cloverbud Opportunities

Annual Awards

Clinton County 4-H hosts an annual awards banquet in the fall. Throughout the year members track their accomplishments and submit a Cloverbud application by October 1st to be eligible. Below are the awards that Cloverbuds can receive.

Outstanding Member of the Year- presented to the top three outstanding members of Clinton County 4-H that complete the **Outstanding Member of the Year Application**, by the following age groups:

- Cloverbud Outstanding Member Ages 5-7
- Junior Outstanding Member Age 8-14
- Senior Outstanding Member Age 15-18

Cloverbud Recognition - any Cloverbud that submits a **Cloverbud Award Application**

Cloverbud Camp—annually usually in June, Cloverbuds are invited to attend our 2 day summer camp. The camp includes arts & crafts, team building and outdoor activities. What the newsletter for dates & locations.

Resources

For more information about the Clinton County 4-H Program, refer to our monthly newsletter, find us on Facebook at Clinton County IL 4-H, or online at <https://extension.illinois.edu/bcjmw>

Welcome and congratulations on becoming a Clinton County 4-H Cloverbud. Cloverbuds have LOTS of fun and do great activities. As a Cloverbud we encourage members to do activities throughout the year to prepare for the General Project Show in the summer. This handbook is a guide to some of the projects that you may complete to show at the General Project Show. The project the member brings DOES NOT have to be from this book. Cloverbuds may bring any project they want except for a live animal, you must be 8 to show live animals. At the show members will simply tell a judge about their project and each member that presents will receive a participation ribbon. We also encourage each member to practice for the general project show by completing show and tell at their meeting. If you have any questions, feel free to call the Extension Office!

Policies and Procedures

1. 4-H year is from September 1 to August 31.
2. Any boy or girl, regardless of race, creed, or color, who is age 5-7 can enroll in the 4-H Cloverbud program.
3. To be able to exhibit a Cloverbud project at our Summer General Project show, all project enrollments need to be completed in 4-H Online by **May 1**.
4. All Cloverbuds must attend a minimum of four 4-H events to be eligible to show their project.
5. Family members and leaders are encouraged to assist Cloverbud members with their projects.
6. All Cloverbuds are encouraged to exhibit at the general project show usually held in July. Members must enter the show by **June 1**. No premiums will be given to Cloverbuds, only participation ribbons.
7. Exhibits should be made during the current 4-H year,
8. All Cloverbuds will be given the opportunity to present their project to a judge.
9. If a Cloverbud needs a reasonable accommodation to participate, call the University of Illinois Extension Office at 526-4551. University of Illinois Extension personnel or their assigned agents do not assume liability for loss, theft or damage to any exhibit.

For more information about the Clinton County 4-H Program, refer to our monthly newsletter, find us on Facebook at Clinton County IL 4-H, or online at <https://extension.illinois.edu/bcjmw> .



Welcome to 4-H

Individual Cloverbuds may exhibit a display related to one of the activities completed within the Welcome to 4-H Curriculum Guide you received as a new member, if you need this publication, please contact the Extension office.

Gardening

Make a Windowsill Garden

4-H Animals

Make a Display Board About your Pet

Understanding Self

Make a Coat of Arms Display Board

Cooking

Prepare one of the following recipes, display mix in a disposable bowl, display 4 bars on a disposable plate in a zip lock bag:

Mix 'n Match Trail Mix

Makes 5 ½-cup servings

Ingredients

- ½ cup nut pieces, such as almonds, peanuts, walnuts, or pistachios
- ½ cup seeds, such as sunflower or pumpkin
- ½ cup dried fruits, such as raisins, cranberries, blueberries, or cherries
- ½ cup sweets, such as chocolate chips, peanut butter chips, candy-coated chocolate pieces
- ½ cup grains, such as toasted oat cereal, popcorn, small crackers, or pretzels

Order of Work

1. Measure one of each kind of ingredients: nuts, seeds, dried fruits, sweets, and grains.
2. Add each ingredient to a mixing bowl and mix until well combined.
3. Serve in small bowl or cup.

Vet Science

Exhibit a display or poster demonstrating what a Veterinarian do and the tools they use. If you would like additional Vet Science resources please contact the Extension Office for the Airedales to Zebras curriculum book.

Veterinarians go to college for at least 6 years. They study body systems, diseases, nutrition, behavior, surgery and many other sciences. They use many different tools in their work.

Exploring 4-H Club Activities

Exploring my Community, exhibit a display board with a map of your town (s) and list all the important places in your community.

OR

Year at a Glance, exhibit a display of activities and projects that illustrate what being a Cloverbud is all about. Display may include artwork, projects, photographs, etc.

Vegetable Gardening

Exhibit a container garden including at least 3 plants. For additional Vegetable Gardening resources please contact the Extension office for the *See Them Sprout Activity Guide*.

Project Info—
OR

What about a container garden?

The right soil
If you're growing vegetables in a container, you need to have soil that's different from garden soil. It needs to drain water better and be really "light."

You can buy a commercial potting mix for gardening in a container, or make your own soil by mixing equal amounts of:

- garden soil;
- organic matter, like sphagnum peat moss; and
- a fast draining material, such as sand, vermiculite, or perlite.

Make sure your container has good drainage. The container should be at least 6 inches deep. Make a hole in the bottom if there isn't one in there already. Once you've filled it with

the soil mix, be sure to raise it off the ground so the extra water can drain out.

Planting

- Cover the drainage hole in the bottom of your container with a rock or a piece of a broken clay pot so the soil won't fall out or drain out. Be sure not to completely plug it so water can still drain out.
- Fill the container with your special soil mix up to about an inch from the top. Now you're ready to plant your seeds!
- Check Table 1 to find out how deep your seeds should be planted. Poke holes that deep in

the soil with your finger. Place seeds in rows or clusters depending on the size and shape of the container. It's okay to space seeds a little closer in a container than in a ground garden. Be careful not to overcrowd.


- Place a seed in each hole. Lightly press some soil over the seed. See the care instructions in step 5 for in the ground gardens.
- Label your garden, then continue as in steps 7, 8, and 9 for in a ground garden. Remember that soil dries out faster in a container than in a ground garden, so check often if you need to water.

DID YOU KNOW?

The Wetness Test

How can you tell when the soil is dry enough to work it up? If you squeeze a handful of soil and it:

- crumbles, then the soil is ready to work up.
- clings, then the soil is still too wet. Wait until it dries out more before you work it up. If you don't wait and you work it up, the soil will stay hard and cloddy for weeks.



Try This

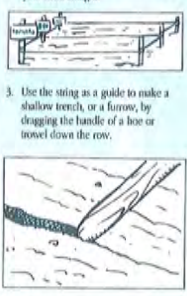
Part 2: Planting Seeds

YOU NEED

- garden seeds
- string
- 2 short stakes
- hoe or trowel
- garden markers

There's a certain time to plant your garden. Check the dates you wrote down in your garden plan.

- Before you start planting, look at your garden plan to see where you're planting what and how much distance there is between the rows for each vegetable.
- Mark the row to be planted. First, place stakes at either end of a row. Then, tie or wind a string around one stake and stretch the string to the other stake. Tie this end, too. Now you have a marker to help you keep your rows straight.
- Use the string as a guide to make a shallow trench, or a furrow, by digging the handle of a hoe or trowel down the row.
- Now you're ready to plant your seeds! Check Table 1 to find out how deep your seeds need to be planted. Drop the seeds along the furrow, a couple of inches apart. If the seeds are too tiny to plant one by one, sprinkle them right out of the package, all along the row.
- Pat some soil gently but firmly over the seeds. Be careful, it's easy to place too much soil over the seeds. Seeds planted too deeply won't sprout. Small seeds should be barely covered. Larger seeds should be planted twice as deep as their diameter.
- Label the rows so you'll know which vegetables are planted in the row.
- Water your seeds with a little water. Don't drench them – they could wash away in a flood! Wait for the water to sink (absorb) into the soil, then water again.
- Wait for your seeds to sprout. It may take up to 2 weeks. In the meantime, keep the soil moist, but not soaked.
- When your seedlings have two pairs of leaves, it's time to "thin" them. That means, pull out any that are growing too close to each other. Or, you can snip them with scissors right where the sprout meets the soil. Why do you need to thin your plants? If roots don't have room to grow, your plants won't grow well. Use the guidelines in Table 1 to see how far to space your plants.

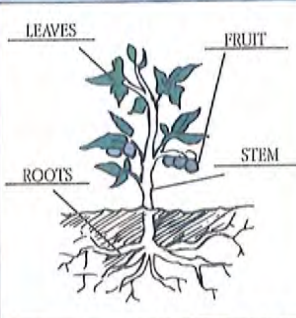


Make and exhibit a creative diagram of the parts of a plant.

Project Info—

Activity 3 B

What's It For?



produced by the plant's leaves travels back down the stem to other parts of the plant and to the roots.

- Stems hold up the plant's leaves (and flowers) so the leaves can best use sunlight to make the food the plant needs.
- Stems also help a plant stand up straight. In your body, your spine and other bones help keep you straight. In plants, water does this job. That's why when a plant needs a drink of water, it will droop and fall over. When you give it water, it stands straight again.

What are a plant's leaves for?

Leaves are important to plants because they are the part of the plant that uses sunlight to make food for the rest of the plant.

What are the parts of a plant and what does each part do?

Everything a plant has is important to help meet the plant's needs to live.

What are roots?

A root is much more than something that holds a plant in the ground. Roots give the plants a drink of water they need. How? Water in the soil enters the root and is carried up through the root to the stem and then to the plant's leaves and flowers.

A root is so important, it is the first thing a sprouting seed grows. (Think back to Activity 6a.) The water roots take up isn't just plain water – it also contains minerals, food for the plant. (If you think that's not possible, try this to believe it: Salt is actually a rock and it dissolves in water. Take a spoonful of salt and stir it into a glass of water. Can you see it? Now taste it – you can't see it, but can you believe it's there?)

What do stems do?

- Water and minerals travel up the stem to the leaves and flowers. Food that is

Welcome to 4-H (cont)

Cooking (cont)

Prepare one of the following recipes, display mix in a disposable bowl, display 4 bars on a disposable plate in a zip lock bag:

Cereal-Marshmallow Bars

Yield: 24 bars

Ingredients

- 3-4 tablespoons butter or margarine (not reduced fat)
- 40 large marshmallows or 4 cups of mini marshmallows (10 ounce package)
- 5-6 cups ready-to-eat cereal

Equipment

- Measuring cups
- Large microwave-safe mixing bowl
- Large mixing bowl
- Cooking spoon
- 9"x13" pan
- Heavy saucepan (optional)

Order of Work

- Lightly coat the pan with non-stick cooking spray.
- Place butter or margarine and marshmallows in large microwave-safe mixing bowl. Place in microwave on high setting for 2 minutes. Stir. Microwave an additional 1 to 2 minutes or until melted. **OR** you may melt the margarine or butter and marshmallows over low heat in a heavy saucepan while stirring continually.
- While the marshmallows and butter or margarine are melting, measure the cereal into a large bowl.
- Stir the melted butter or margarine and marshmallows. Pour this over the cereal. Stir gently until cereal mixture is evenly coated. You may need an adult to help you with this step.
- Carefully press the warm marshmallow-cereal mixture in the prepared pan.
- Cool. Cut into small squares or bars.

For extra-special cereal-marshmallow bars, add some chocolate bits, chopped dates, candied fruits, or nuts. You can use one or more of these and mix them with the cereal before adding the marshmallow mixture.

Cloverbud Projects

Clothing & Textiles (Sewing)

Construct a garment or patch pillow

Do Your Own Thing

Bring a display board or project on your favorite interest

Electricity

Make a simple electrical project

Floriculture

Make a simple flower arrangement

Interior Design

Make something that coordinates with your room

Photography

Take photo(s) and display in an 8x10 frame

Woodworking

Construct an item from wood

Scrapbooking

Prepare a 7 page scrapbook

Personal Development

Create a display illustrating growth and responsibility

Project Example—

Home Helpers

Make a list of chores we can do to help our family at home.

Good People are Good Citizens

Good citizens are kind and think of others, they are committed to improving their neighborhood, state, country and planet.

Make a list of activities that would make them good citizens. Compile a list of "Things I Can Do Myself" this can be things they can do at home, at school, in our community.

Science & Technology

Create a recycling mobile from paper or recycle materials.

Project Example—

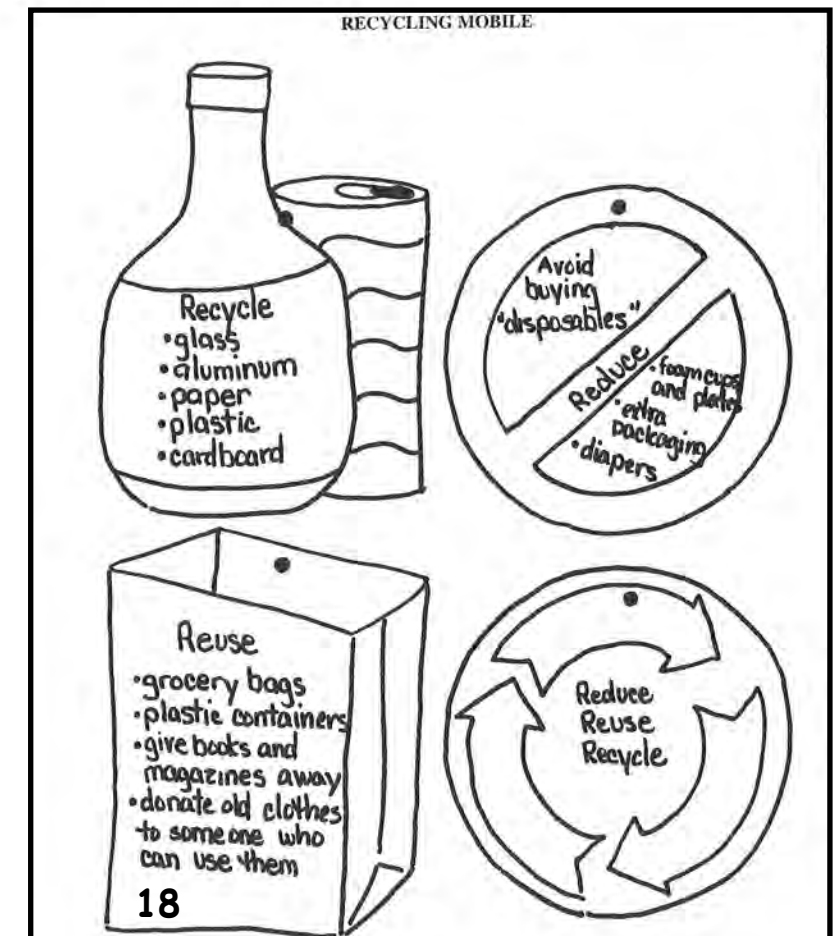
Grade Level: K - 2

Materials: Mobile patterns, markers or crayons, scissors, string, hole punch and wire coat hangers.

Give each child a mobile pattern. Invite them to decorate them any way they wish. If needed, help them cut the pieces out and punch holes in the tops. Thread strings of various lengths through the holes and tie to the coat hanger. Encourage the children to display their mobile at home and talk to their families about the importance of the three R's: Reduce, Reuse, and Recycle.

Application: Be a recycling detective: pay attention to everything you see.

- What things can be reduced?
- What things can be reused?
- What things can be recycled?



Leadership

Create a display illustrating leaders in the community
Project Example—

Grades **K - 2**

Relationship Building

I Spy a Leader

Leaders are everywhere. You can find leaders in your city, your neighborhood, and your club, at the police station, at your school and at your home. Through television and radio we see and hear about leaders all around the world. These leaders may include the President of the United States, the governor of your state, or a captain of a national sport team. Leaders can be found in all types of situations such as in office buildings, on the playing field, or outdoors. Let's play "I Spy a Leader" to find leaders all around us.

Step Out

Guide the children through the following steps. Older youth may help the children with cutting.

- Discuss what makes a leader.
- Using newspapers and magazines find pictures or stories about different types of leaders.
- Cut out the pictures or articles and make a collage.
- Everyone make their own collage or they can make a group collage.
- Share the collages by saying, "I spy a leader..."

Life Skill: Leadership

Activity Description:
The children find leaders all around them

Success Indicator: The youth identify leaders in the community.

SUPPLIES TO GET STARTED

- Newspapers
- Magazines
- Scissors

Step Inward

Ask the children:


Relax & Reflect

- How many different leaders did you find?
- Who are the leaders? What do they do?

Apply

- Can anyone become a leader?
- What does a person have to do to be a leader?
- What does being a leader mean to you?
- Do you know anyone who is a leader? What do they do? How do they lead?

Next Step



1. Take a field trip to the mall, a school, the zoo, the police station, the county courthouse, or a sporting event.
 - Make arrangements to visit with different leaders at the site.
 - Have the leaders share how they work with others and how they are leaders.
 - While walking around the site say "I spy a leader who..."
 - Answer these questions:
 - How do you think you can become a leader in your group or community?*
 - When are you a leader in your group or neighborhood? Give an example.*
2. Make a "Leader Book". Draw pictures of the different leaders in the community or neighborhood and write a story about one of the leaders.
 - How does the leader help people?
3. Read a book from the Information Station.

Leaders are people I can Trust

Allow children to draw pictures of those people they can trust. Good people are people we can trust. They tell the truth, help us, and would never hurt us.

Who do you trust, Why?

Cloverbud Projects

Visual Arts (Arts & Crafts)

Chalk/Carbon/Pigment

Exhibit a work of art made from paint, markers, pencils, chalk, pens, ink, or charcoal on paper or canvas. If you would like additional Visual Art resources please contact the Extension Office for the Get Started in Art curriculum.

Project Example—

Unit 3
Marbling Swirls

Descriptor & Goal:
Children explore effects that swirling paint has on color.

Recommended Grades:
1-6

Element:
Color

Principles:
Movement and variety

Child Outcome:
Imagining

Life Skill:
Learning to learn

National Art Standard:
Understanding and applying media, technique, and processes; reflecting upon and assessing the characteristics and merits of their work and the work of others

Setup:

- Read through the activity.
- Set up workstations for 2-3 children per station.
- Mix acrylic paints with equal amounts of water.
- Fill the pans with a thin layer of starch.
- Set out paper, eyedroppers, brushes, and mixed paint at each work station.

Activity Time:
60 minutes

Preparation:
Time: 20 minutes
Materials:

- Acrylic paints in a variety of colors
- Shallow pan—such as an aluminum foil pan 9" x 13"
- Heavy paper #24, cut to the width of the pan
- Liquid starch
- Tools—such as eyedropper, brush, comb, plastic knife, straw cut in half

Background

Marbling is a process of transferring paint floating on water to paper. It produces a mottled or marbled effect. In the 1400's the Turks developed a method of marbling called **ebru**, which means, "cloud art". Ebru marbling creates beautiful delicate designs by floating paint on water. The paint is then swirled or "combed" and paper is laid over the floating paint. When the paper is lifted off the water the paint design comes with it.

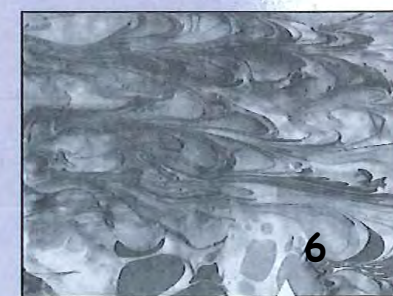
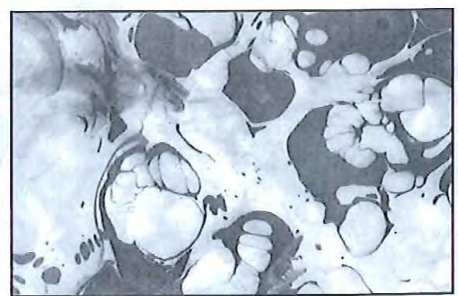
Marbling Swirls uses a simpler method to marble paper. Acrylic paint mixed with water is floated on liquid starch. Using a tool to slice through the liquid starch moves the paint into a wavy design. Lay the paper over the liquid starch. When you lift the paper up the paint design attaches to the paper creating marbled paper.

Ready, Set, Marble!

Do

Have the children follow these directions:

1. Place a few drops of paint on the liquid starch in the pan. Try several colors.
2. Use a tool to gently slice through the water to create a marbled design in the paint. Do not mix.
3. Lay a piece of paper on the paint for five seconds. Lift paper up letting the starch drip off the paper.
4. Blot the marbled paper with a paper towel. Hang paper to dry or lay flat on newspaper.
5. Try marbling again.
6. If necessary press paper with a heavy book when dry.

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Visual Arts (Arts & Crafts) continued

Chalk/Carbon/Pigment

If you would like additional Visual Art resources please contact the Extension Office for the Get Started in Art curriculum book. Project Example—



Explore color interactions by **WEAVING A WATERCOLOR.**

WHAT YOU'LL NEED

- 2 sheets of 9"x12" watercolor paper
- 1 sheet of construction paper for background (larger than 9"x12")
- watercolor paints
- brushes
- water
- scissors
- glue



Select a shape and a starting color. Paint the shape, from the inside out, following the color wheel progression. Repeat on the second piece of paper.

After your paintings dry, cut one into strips, leaving the strips attached on one edge. Cut the other painting into strips and weave them through the strips on the first painting.

Glue the edge pieces together and attach the weaving to the background paper.

OPTIONS

- Cut the strips along wavy lines (instead of straight) and see how this affects the weaving. Be sure to keep them in order so they fit together.
- Explore what happens when you use a monochromatic palette, or two contrasting colors for each painting.
- Use fabric and/or ribbon to create a cloth painting or art quilt.

Latino Cultural Arts

Exhibit a rain stick.

Project Info—

OR

It's Raining Indoors!

Plaza La Cultura

Cultural Art: Instrument Making

Cultural Theme: The importance of music

Activity: Create a rain stick

Life Skill: Accepting Differences

Educational Standard: Understanding music in relation to history and culture.

Time Involved: 1 hour

Suggested Grade Levels: K-2

Materials Needed:

- A cardboard paper towel or wrapping paper tube
- A piece of cardboard as big as an envelope (i.e., cereal box)
- Toothpicks
- Beans, rice, corn and pebbles
- Scissors
- Tape/glue
- Paint/paintbrush

Chile

In the high, dry deserts of Chile, it does not rain often. There is a magic rain stick that the people of Chile use to make rain.

When you pick up the stick and turn it over, it makes a sound like rain falling on the dry desert sand. In this activity, youth will make one with everyday household items.

Let's Do It/Hagamos

Below are step-by-step instructions to make a rain stick. Use these instructions as a guide to help the youth make a rain stick and decorate in their own way.

Step 1
Trace the round end of the tube onto cardboard to make two circles. Cut out the circles. Trim them just a little smaller so they fit in the two holes of the tube.

Step 2
Tape and glue one of the circles into one end of the tube.

Step 3
Carefully push toothpicks through the tube so they come out the other side. (HINT: Start the holes with a pin.) Push in 12-14 toothpicks for a paper towel-sized tube.

Step 4
Put a drop of glue on either end of the tube where toothpicks stick out. Break off any pieces that stick out too far.

Step 5
Pour in a mixture of rice, corn, beans, and pebbles. Pour in about a 1/2 cup for a paper towel tube, and more for a larger tube.

Step 6
Glue and tape the other cardboard circle to seal the tube.

Step 7
Decorate the rain stick.

Words in **bold** can be found in the glossary on page 140-141.

What's a Huichol?

Plaza La Cultura

Cultural Art: Yarn Art

Cultural Theme: Indigenous culture

Activity: Make a picture using yarn and learn how art forms can relate to emotions and beliefs.

Life Skill: Accepting differences

Educational Standard: Understanding the visual arts in relation to history and cultures.

Time Involved: 60-90 minutes

Suggested Grade Levels: K-2

What You Will Need:

- A piece of cardboard (the back of a cereal box works well)
- A pencil or pen
- Craft glue, A craft stick or a toothpick
- Yarn in a variety of colors

The Mexican states of Nayarit and Jalisco

The Huichol people of Mexico would make art by warming beeswax in the sun and pressing yarn into the beeswax to create patterns on wooden figures or objects. The Huichol use all kinds of birds, lizards, or snakes as decorations. Youth will create their own Huichol pictures from yarn and glue.

Let's Do It/Hagamos

Below are step-by-step instructions to make a Huichol picture. Use these instructions as a guide, encouraging youth to create their own design.

Step 1
Trace or draw a simple design or shape onto a piece of cardboard.

Step 2
Spread a thin layer of glue across the entire design.

Step 3
Starting on the outside of the design, lay the yarn down on the glue. Follow the outline of the design and press yarn into the glue.

Step 4
When the entire outline is covered with yarn, put another line of yarn inside the first one. Experiment with different colors.

Step 5
Continue until the entire object is covered. Youth can hang the Huichol art as a picture, or they can cut them out and use them for Christmas ornaments!

Words in **bold** can be found in the glossary on page 140-141.

Exploring Farm Animals

There are many types of farm animals. Some farm animals make food for us to eat, others help us on the farm.

Make a poster showing the different kinds of farm animals and what they provide for us.

Or

Make a poster of your favorite farm animal and explain how you care for it. Take it up a notch and make a model of your favorite animal including a farm scene utilizing shoe box.

CHAPTER
3

Decisions, Decisions

It's Alive!

Young children are usually fascinated by live animals. They are also excited to care for them. Sometimes they do not fully realize the responsibility involved. In this lesson, you will help children make a plan to care for a live animal for a week. Youth will learn the responsibility required and practice planning and decision-making skills.

Life Skill:	Making decisions
Project Skill:	Planning and caring for a farm animal
What Group Will Do:	Make animal-care collages and a plan to care for a live animal for a week
Recognition:	Before moving to the "Animal Care Checklist" be sure that helpers look at and comment positively on each "Animal Collage." Reinforce the children as they explain their collages.
Evaluation:	The project skill of caring for a live animal can be assessed from looking at the children's "Animal Collages" and the "Animal Care Checklist." How well did the youngster do in anticipating the needs of the animal? Decision making is assessed through the generalized questions. Did the children understand how and why they and their families made their decisions about animal care?
Time Required:	One hour
Suggested Group Size:	Up to 20
Materials Needed:	Copies of "Animal Care Checklist" for every child, blank sheets of paper, scissors, pencils, glue and magazines with pictures of farm animals and items needed to care for them.

Getting Started

Bring the children into the activity by asking: "Do you have an animal at home?" "If not, who do you know who has an animal?" "Why do people have pets or raise farm animals?" "What kind of things do animals need?"

Farm animals and pets need us to take care of them.

1. Experience (Doing)

Begin by asking each child to decide on an animal they would like to take care of for a week. Preferably it will be a real farm animal or pet, but a stuffed animal can be substituted. Next, invite each child to find a magazine picture of that kind of animal, draw it or use a photograph. Then have the children find pictures that show the food, shelter and equipment necessary for care of that animal. Ask them to make an "Animal Collage" by gluing their pictures to blank sheets of paper. Ask each child to explain her/his "Animal Collage" to a small group of three or four others. Use the questions in the Talk it Over section to initiate a discussion. Distribute copies of the "Animal Care Checklist" and have them compare their pictures with the things on the checklist. Encourage each child to record or check what they do each day to care for their real or stuffed animal. Compare checklists at the next group meeting.

Challenges

1. Ask youngsters to create a scrapbook of different pets or farm animals. For each animal cut pictures of the kind of food and shelter the animal needs.
2. Visit a pet store or farm feed store and look at all the different kinds of food available for animals. What other supplies are available for animals?
3. Visit a local veterinary clinic to see the kinds of care veterinarians provide for animals. If possible, have the staff demonstrate proper care for different animals.

Talk it Over

2. **Share (What happened?)**
 - Q. What animal did you decide to take care of for a week?
 - Q. What kinds of things does your animal need? (Shelter, food, water, exercise and attention.)
 - Q. Did you include in your collage everything you needed to care for an animal for a week?
3. **Process (What's important?)**
 - Q. How did you decide when you would take care of your animal?
 - Q. How does your family decide who will care for any animals and when they will do it?
4. **Generalize (So what?)**
 - Q. What would happen if a person decides not take care of her or his animal?

Visual Arts (Arts & Crafts) continued

Plastic

Exhibit any project made from plastic. If you would like additional Visual Art resources please contact the Extension Office for the Get Started in Art curriculum book. Project Example—

BOTTLECAP BLOSSOM MAGNETS are bright, cheerful—and GREEN!

WHAT YOU'LL NEED

for one small DAISY DOT:

- 16 or more small plastic bottle caps
- 3–4 med-sized plastic caps and lids
- 1 used CD (this will be the base of your magnet)
- 3 flat, old advertising magnets
- 36 ½" glue dots (⅛" thick, high tack)

for one medium-sized GLORIOUS MARIGOLD:

- 35 or more small plastic bottle caps
- 4–5 medium-sized plastic caps and lids
- 1 old vinyl 45 record (this will be the base of your magnet)
- 6 flat, old advertising magnets
- 80 ½" clear glue dots (⅛" thick, high tack)

for one huge SUNFLOWER BURST:

- 80 or more small plastic bottle caps
- 20–22 medium-sized plastic caps and lids
- 1 old vinyl record album LP (this will be the base of your magnet)
- 8 old CDs
- 20 flat, old advertising magnets
- 150 ½" clear glue dots (⅛" thick, high tack)

scissors

Cover your magnet base (CD for the small DAISY DOT, 45 for the GLORIOUS MARIGOLD or LP for the SUNFLOWER BURST) with the flat, old advertising magnets. The more magnets you can use, the more holding power your Bottlecap Blossom will have. **Trim** any magnet that overhangs the base with scissors. Use glue dots to stick the magnets to your base. (Of course, you'll want to make sure the magnetic side is exposed!)

Arrange your bottlecaps on the base to form designs. Be creative with your arrangements by experimenting with the sizes, shapes, and colors of the caps: nestle smaller caps inside larger ones, put tall caps next to short caps to form interesting textures, create patterns through color, etc.

Glue the bottlecaps to the base and to each other using the glue dots. The sides and bottoms of the caps offer the most surface area for gluing. (Be careful not to handle the glue dots too much, or they'll lose their stickiness.)

OPTIONS

- Recreate a famous painting using this idea. Go beyond flowers; consider landscapes, seascapes—even portraits!
- For those skilled at wood-working, use a wooden board as your backing and attach the bottlecaps with screws.
- For more information about art projects using plastic bottlecaps and other recycled materials, visit Michelle Stitzlein's website, www.artgrange.com

Cake/Cookie Decorating

Display 4 decorated cookies or cupcakes on a disposable plate in a zip lock bag or decorate a round two layer cake.

Miscellaneous

Display one arts and crafts project created by the Cloverbud

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Visual Arts (Arts & Crafts) continued

Paper

Exhibit any project made from paper. If you would like additional Visual Art resources please contact the Extension Office for the *Get Started in Art* curriculum book.

Project Example—



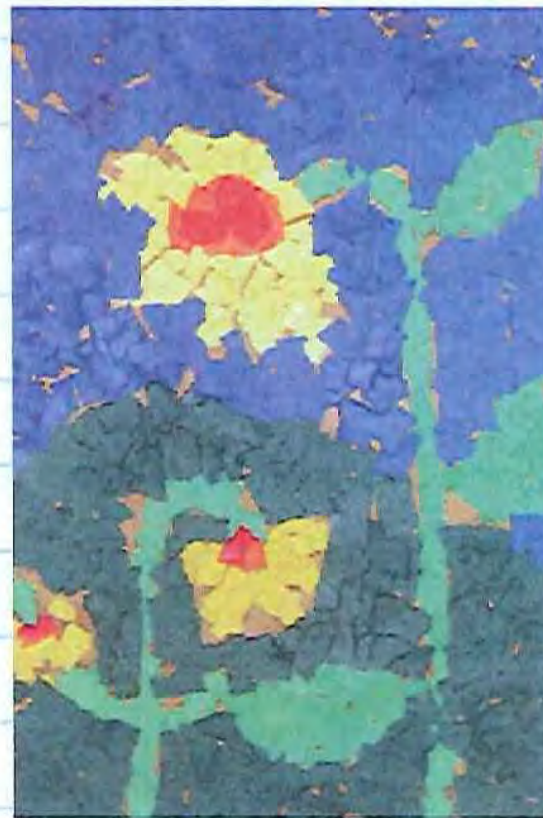
Make your own **PAPER GARDEN COLLAGE.**

WHAT YOU'LL NEED

- 1 piece of 12"x18" paper
- pencil
- collection of torn construction or tissue papers
- glue

Look at examples of flowers and gardens—in books, magazines, online, or real life.

Lightly sketch your own garden. Working in small sections at a time, "paint" with your glue. Attach the papers to the glue to color in your garden.

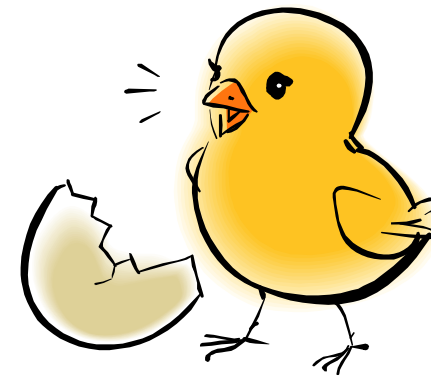


OPTIONS

- Instead of plain-colored papers, use patterned paper (from magazines, old wallpaper book samples, scrapbook papers, etc.). How does this expand your creative options?
- Use fabric instead of paper for additional texture. Alternate attachment options, such as staples, might be necessary to securely adhere the fabric to paper. You may want to sew the fabric to the paper.
- Quilters might want to create this project from fabric completely. Use un-hemmed pieces of fabric for more texture.

Embryology (continued)

Project Info—Parts of the Egg



Embryology skill:
Identifying parts of eggs

Life skill:
Learning to learn

Science skill:
Observing

School subjects supported:
Biology

Preparation time:
20 minutes

Activity time:
20 minutes

What you need:
 Eggs

- Plates
- Two glasses or bowls
- Vinegar
- Water
- Receptacle for eggs after the activity

Break Out!

From a local farm, obtain eggs of different shapes, colors, sizes, with calcium deposits, and with meat and blood spots. Ask the class to examine the eggs, find the differences, learn why the variations occur, and why they normally don't see them in the store.

Talk it over

Share

- What new parts did you learn?
- Why is it necessary to wash your hands after working with raw eggs?

Process

- How is each part of the egg important to the development of the embryo?
- What will you do differently the next time you identify egg parts? Why?
- How did the real egg help or hinder learning the parts?

Generalize

- What other ways do you like to learn parts of items? Why?

Apply

- How will your understanding of egg parts affect your use of eggs in the future?

CONSIDER THIS

- The 1999 estimate for eggs produced were 192.5 million cases.
- The top 10 egg-producing states:
 1. Ohio
 2. Iowa
 3. California
 4. Indiana
 5. Pennsylvania
 6. Texas
 7. Minnesota
 8. Georgia
 9. Nebraska
 10. Florida

Can your students find the states listed above?

Other questions you may ask.

- How might you learn this information in a different way?
- What senses did you use? When have you used your senses to learn before?

ON THE WWW

Visit the AEB Web site at: www.aeb.org

Obtain the record for egg production in one year and the number of eggs that the average consumer uses each year.

Evaluate it

- Can students identify the parts of the egg?
- Can students tell how the parts contribute to embryo development?

Eggsploring the egg

Introduction

Have you ever wondered how the parts of an egg stay separate until you are ready to scramble them for breakfast? Or why there is that stringy thing in the white of an egg?

In this activity, you will learn the parts of the egg and what each part does. Listen carefully, and by the time you are finished, you will be an "eggspert."

Get ready

When buying eggs, allow extra eggs for each group; students may damage eggs they are using before completing all of the activities. If you don't mind a little extra clean-up, let the students break their own eggs. If you want to avoid the mess, break them a few minutes beforehand and put them into plates. (If you break eggs too early, they dry up.)

For the last part of the activity, prepare eggs in vinegar a few days before the class by putting them in bowls or glasses and completely immerse them in vinegar. Allow the eggs to soak in the vinegar solution for up to two days. The shells should dissolve completely. Once the shells dissolve, carefully remove the eggs from the vinegar and place them in a bowl of water.

Do it

1. Allow the class to break up into small groups of three to five students. Each group should have a plate and an egg.
2. Make sure that after handling the raw eggs all students wash their hands to prevent bacterial contamination.
3. In this activity, students are asked to identify parts of an egg using the definitions. Allow time for the students to experiment with finding the structures and complete the "Eggsploring the Parts" sheet. *Should they need help in locating specific structures, try to ask questions like:*
 - Where would you expect to find the inner thick albumen?
 - What might its relationship to the yolk be?
 - How might you be able to separate the inner and outer albumen?
 - Where would you find the air cell in the eggshell?
 - How does each part aid the developing embryo?
4. Show each group the egg that has been in vinegar so that the students can see the shell membranes.

Embryology (continued)

Incubation of chicken eggs.
Project Info—

Day 8
Feathers begin to form.

Day 9 (see figure)
Embryo begins to look bird-like.
Mouth opening appears.

Day 10
Beak starts to harden.
Skin pores visible to naked eye.
Digits completely separated.

Day 11
Days 10 to 12 tend to run together. No different changes visible on these days.

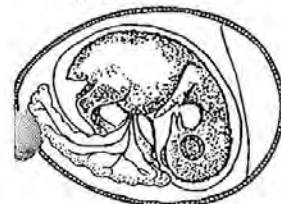
Day 12 (see figure)
Toes fully formed.
Down feathers visible.

Day 13
Scales and claws become visible.
Body fairly well covered with feathers.

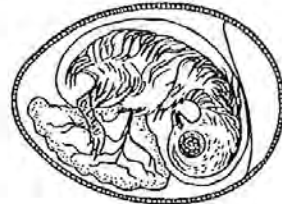
Day 14
Embryo turns its head toward blunt end of egg.

Day 15
Small intestines taken into body.

Day 16
Scales, claws and beak becoming firm and horny.
Embryo fully covered with feathers.
Albumen nearly gone and yolk increasingly important as nutrient.



Day 12



Day 15



Day 18



Day 20

Day 17
Beak turns toward air cell, amniotic fluid decreases and embryo begins preparation for hatching.

Day 18 (see figure)
Growth of embryo nearly complete.

Day 19
Yolk sac draws into body cavity through umbilicus.
Embryo occupies most of space within egg except air cell.

Day 20 (see figure)
Yolk sac completely draws into body cavity
Embryo becomes chick, breaks amnion and starts breathing air in air cell.
Allantois ceases to function and starts to dry up.

Day 21
Chick hatches.
Although used only to break through the shell, the egg tooth serves its critical purpose well.

Coturnix (Japanese) quail	16–18 days
Chicken	21 days
Pheasants	24–26 days
Ducks	28 days
Geese.....	28 days
Guinea.....	28 days
Turkey.....	28 days
Swan	35 days
Muscovy duck.....	35 days
Ostrich.....	42 days

Beading Crafts

Exhibit any project made from beads. If you would like beading craft resources please contact the Extension Office for the Craft Beading Curriculum.
Project Example—

4-H Club Meeting 4 Bead Wind Chimes



Supplies

- Cord
- Paper or plastic cup, clear or white
- Hole punch
- String, assorted colors
- Beads
- Washers
- Permanent markers
- Paint
- Jewel sticks
- Sequins
- Assorted stickers

In this meeting we will be making wind chimes out of everyday household items such as cups and washers. These wind chimes can be hung outside and they make a beautiful, relaxing jingling and ringing when the wind blows. This craft is very fun and easy, and you can be proud to have made such a usable, impressive item for your home!

Activity #1

BEAD WIND CHIMES (Vowles, 2013)

1. Using a hole punch, create holes just below the rim of the cup to string the strings of beads through. Space each hole at least 3/4" apart.
2. Pick the color of string you want to use. Cut one 6" length of string for every hole you made on the cup.
3. Thread one string through each hole in the cup and tie a double knot to keep the string from slipping out of the hole.
4. Thread beads onto the strings in the pattern of your choice. Tie washers to the end of each string so the beads don't slip off. (The washers clanking together will make the chiming noise that creates the sound of a wind chime.)
5. Decorate your cup with paint, jewel stickers, sequins, markers, glitter and anything else you want!
6. Cut a small "X" in the bottom of the cup using scissors.
7. Cut a piece of cord the length you want your wind chime to hang, plus 5-6 extra inches for knots.
8. Feed the cord through the "X" and tie a knot in the cord on the inside of the cup. Hang the wind chime by the cord.

Aerospace I

Build a Model Rocket

OR

Exhibit a Marshmallow Rocket

Find a picture and some information about a real rocket and its parts, then draw a picture of a rocket labeling the fins, body tube and nose cone as well as what they do. Then build a rocket using 3 large marshmallows, 3 gum-drops, 1 cone shaped chocolate drop and 6-8 toothpicks.



OR

Build a Kite



Bicycle

Choose one of the following:

Show your bicycle labeling parts

Make a poster about bicycle safety or parts



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Embryology

Complete a display board on the incubation of chicken eggs.
OR parts of the egg.
Project Info—

Daily embryonic development

Before egg laying

- Fertilization.
- Division and growth of living cells.
- Segregation of cells into groups with special functions.

Between laying and incubation

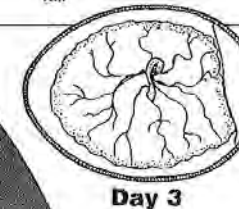
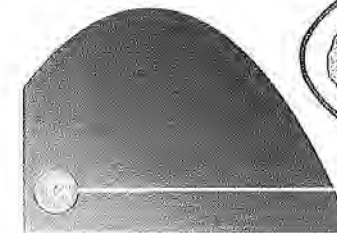
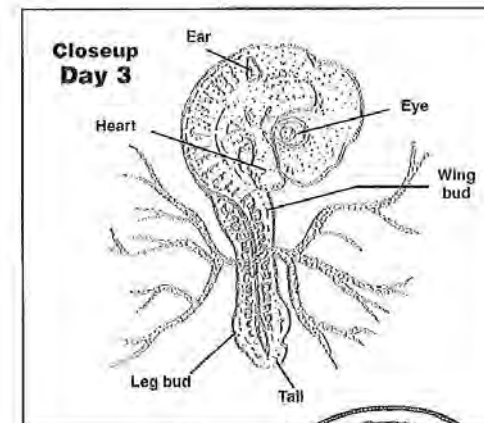
- Very little growth; inactive stage of embryonic life.

During incubation

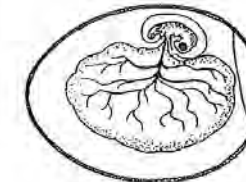
Day 1

Major developments visible under microscope:

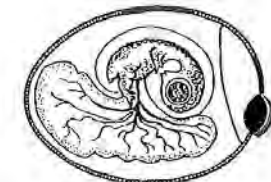
- 18 hours — Appearance of alimentary tract.
- 19 hours — Beginning of brain crease.
- 20 hours — Appearance of vertebral column.
- 21 hours — Beginning of formation of brain and nervous system.
- 22 hours — Beginning of formation of head.
- 23 hours — Appearance of blood island.
- 24 hours — Beginning of formation of eyes.



Day 3



Day 6



Day 9

Day 2

- 24 hours — Embryo begins to turn on left side.
- 24 hours — Blood vessels appear in the yolk sac.
- 24 hours — Major developments visible under microscope.
- 25 hours — Beginning of formation of veins and heart.
- 30 hours — Second, third and fourth vesicles of brain clearly defined, as is the heart, which starts to beat.
- 35 hours — Beginning of formation of ear pits.
- 36 hours — First sign of amnion.
- 46 hours — Formation of throat.

Day 3 (see figure)

Beginning of formation of beak, wings, legs and allantois.
Amnion completely surrounds embryo.

Day 4 (see figure)

Beginning of formation of tongue.
Embryo completely separates from yolk sac and turns on left side.
Allantois breaks through amnion.

Day 5

Proventriculus and gizzard formed.
Formulation of reproductive organs — sex division.

Day 6 (see figure)

Beak and egg tooth begin to form.
Main division of legs and wings.
Voluntary movement begins.

Day 7

Digits on legs and wings become visible.
Abdomen becomes more prominent due to development of viscera.

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