

# 4-H Cloverbud Activity Book A



Produced by: Kim Drolshagen, Michelle Grimm and Michelle Schroeder, 2010

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# My 4-H Club



18 U.S.C. 707

My Name: \_\_\_\_\_

4-H Club Name: \_\_\_\_\_

4-H Leader's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Other Club Members: \_\_\_\_\_

4-H Youth Development Agent's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

# A Little Bit About Me



Name: \_\_\_\_\_

Age: \_\_\_\_\_

My Family members: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

My favorite activities: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# 4-H Club Emblem

The four leaf clover with the letter "H" on each leaf, which stands for head, heart, hands and health. The colors of the emblem are green and white.

## 4-H Motto

**"TO MAKE THE BEST BETTER"**  
This motto challenges everyone involved in 4-H to do the very best job they can.

## 4-H Slogan

**"LEARN BY DOING"**

# 4-H Pledge

I pledge:

My Head to Clearer Thinking (Right hand points to forehead)

**Head**



My Heart to Greater Loyalty (Right hand over heart)

**Heart**



My Hands to Larger Service (Arms slightly bent, palms up)

**Hands**



And My Health to Better Living for My Club,  
My Community, My Country and My World (Arms at side)

**Health**





# My Club and County Activities and Events

Activities and events I was part of:

Event	Date

# Create - a - Critter

Make up a brand new critter. Construct your critter by using some of the materials listed below, and then draw a picture of your creation. Decide the details by completing the sentences below.



Draw a picture of your critter here.



My critter's name is \_\_\_\_\_.

It lives in the \_\_\_\_\_.

It eats \_\_\_\_\_.

It moves by \_\_\_\_\_.

It is special because it \_\_\_\_\_.

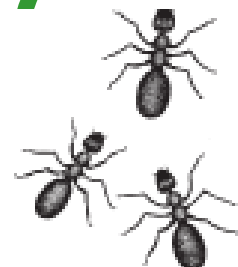
Materials: straws, toothpicks, paper, paper plates, modeling clay, crayons, any other items you may have







# Ant ANTatomy



## Create your own ANT!

Ants are a type of insect that have six legs, two antennae and three body sections. The three body sections are the head, thorax and abdomen.

Ants live in colonies made up of queens, males and workers. They are amazing creatures that come in different colors, with black being the most common. Ants can carry up to 27 times their body weight!

Where do you see ants? \_\_\_\_\_

What color ants have you seen before? \_\_\_\_\_

How many antennae do ants have? \_\_\_\_\_

Can you name the three body sections of an ant? \_\_\_\_\_

How many legs do ants have? \_\_\_\_\_



## Time to make your ant!

Materials: three large marshmallows, 4 large pipe cleaners cut in half, 2 toothpicks, scissors and markers.

### Procedure:

1. Use the three large marshmallows as the body sections and connect them using toothpicks.
2. Cut 4 large pipe cleaners in half to make 8 small pipe cleaners. Use 6 for the legs and insert 2 for the antennae.
3. Decorate your ant using markers.



# Create a Habitat

Draw a picture of your habitat here.



## Choose an animal and create its habitat!

For this activity, choose any animal and look up its habitat. An animal's habitat is the area in which it lives. For example, your habitat is your house because it is where you live.

You can make your habitat out of anything you would like. A few suggestions are: shoebox, construction paper, glue, markers, grass and twigs.

My animal is a \_\_\_\_\_ . It lives \_\_\_\_\_

It eats \_\_\_\_\_



# Let's Make Sidewalk Chalk



Place a picture of your artwork here.



**Materials:** 2 cups water  
 2 cups Plaster of Paris  
 2 Tablespoons Tempera Paint (wet or dry)  
 Toilet paper tubes with duct tape over one end  
 Cookie sheet lined with aluminum foil or waxed paper

## Procedure:

1. Combine and stir together all ingredients, and let stand for a few minutes.
2. Place prepared toilet paper tubes on cookie sheet lined with aluminum foil or waxed paper.
3. Pour mixture into holders, let stand until semi-firm.
4. Remove holders and let dry completely.
5. Ready to use in 1  $\frac{1}{2}$  hours.
6. Now use your sidewalk chalk to draw a picture outside!

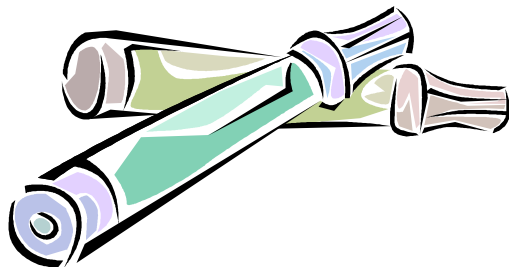
**CAUTION:** DO NOT POUR PLASTER DOWN THE DRAIN AND MAKE SURE ADULTS SUPERVISE THE MIXING!



# Puppet Creations

Let's create a puppet and perform a puppet show!

**Materials:** Lunch bag  
Markers  
Googly Eyes  
Yarn  
Glue  
Pipe Cleaners  
Other Craft Supplies



**Procedure:** Using your supplies create puppets and perform a show for your friends and family!

Draw a picture of your puppets here.



# Sand Painting



Draw a picture of your artwork here.



Let's create a picture using sand!

Materials: Dry Sand (in paper cups)  
Pencil  
Crayons  
White Glue  
Paper or Cardboard  
Newspapers



Procedure:

1. Use a pencil to draw a picture design lightly on paper.
2. Apply a bead of glue to the pencil lines.
3. Sprinkle sand gently over the wet glue.
4. Tilt the paper so the extra sand falls off the paper onto the newspaper.
5. Let dry.
6. Use crayons to add details or color to the sand painting.



# Beanbag Socks

Practice some sewing skills while making a beanbag sock!

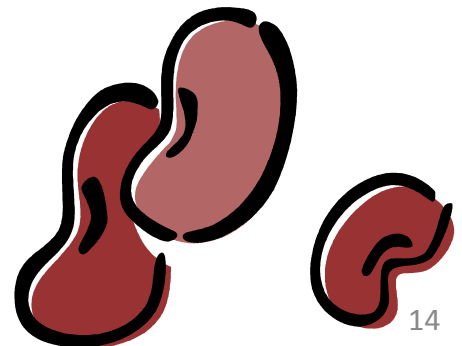
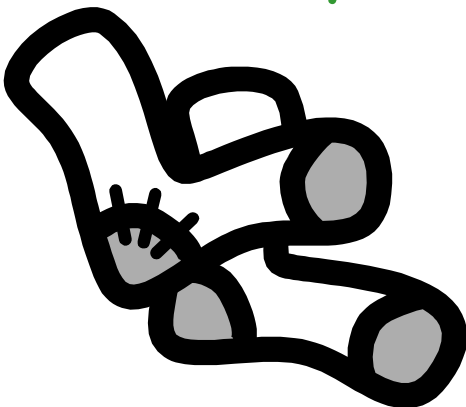
Materials: Unmatched Sock  
Dried Beans  
Large Darning Needle  
Colorful Yarn  
Scissors  
Markers



Procedure:

1. Collect the materials needed.
2. Fill sock with dried beans, leaving room to sew the top of the sock.
3. To finish the sock - close to the beans stitch the top closed using the colorful yarn and darning needle.
4. Use markers to decorate the sock.

See if you can come up with a fun game to play with your new beanbag sock!



# Graham Cracker Scram

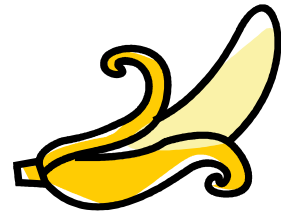
Let's Make a Delicious and Nutritious Snack!

Make sure to ask an adult for help!

Ingredients: Graham Crackers  
Peanut Butter  
Bananas, sliced  
Low-fat milk



Equipment: Plastic Knife  
Paper Plates  
Plastic Glasses, for milk  
Napkins



Procedure:

1. Before making the snack, make sure to wash your hands with soap and warm water.
2. Use the plastic knife to slice the bananas.
3. Take a half of a graham cracker and spread peanut butter on it and then top the peanut butter with sliced bananas. Add the other half of the graham cracker to the top and enjoy with a glass of low-fat milk.

This snack is made with everyday foods that are healthy for us, like peanut butter and fruit. Can you think of any other everyday foods you could use to make a similar snack? \_\_\_\_\_

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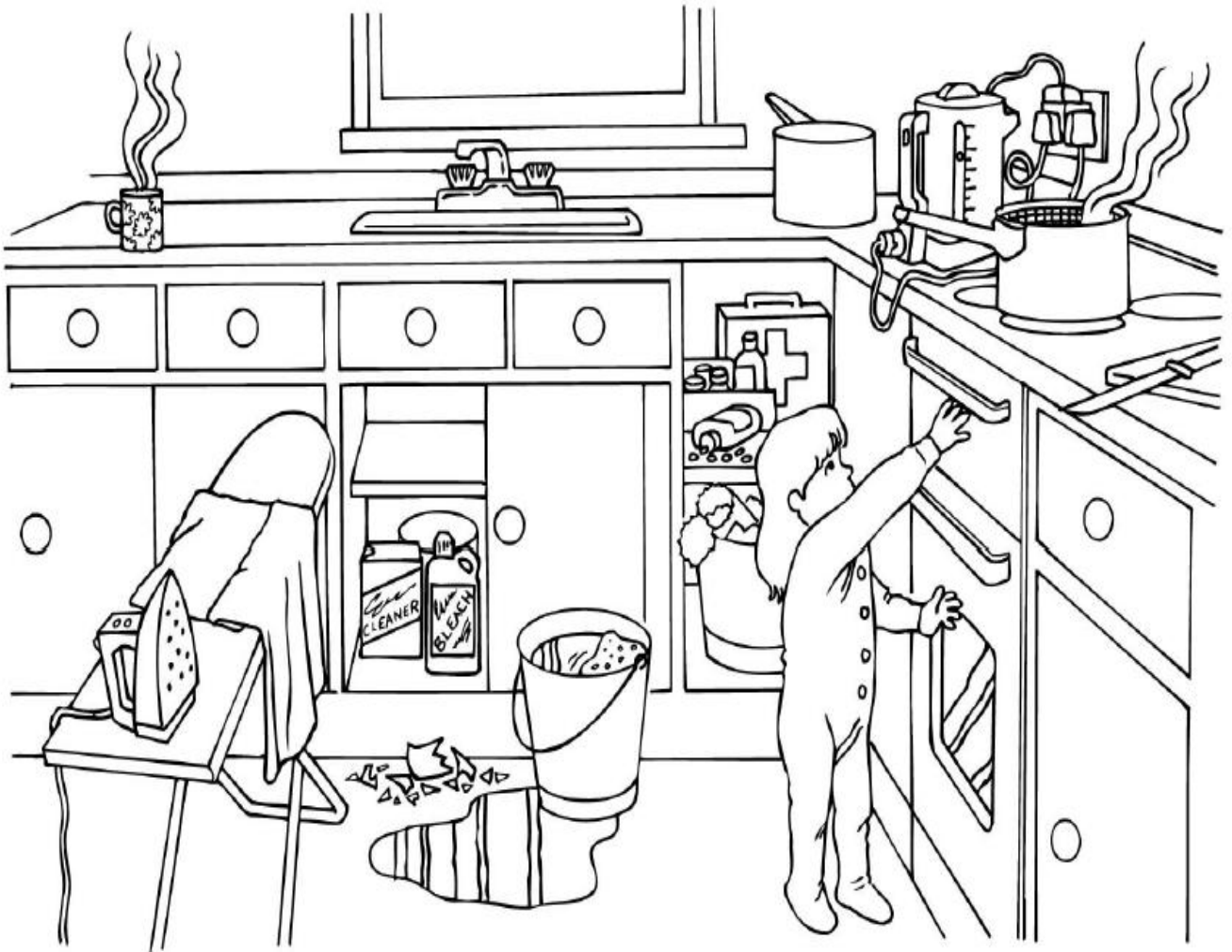
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# Kitchen Safety

Circle all of the unsafe things in this picture.



Reproduced by kind permission of Ten Alps Publishing

Do you have any of these habits in your kitchen? \_\_\_\_\_  
 List the things you will change about your own safety habits.





# First Aid

Examine the items you find in a first aid kit, and write what they are used for.



Bandages

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Sterile Gauze

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Adhesive Tape

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Antiseptic Wipes

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Antibiotic Ointment

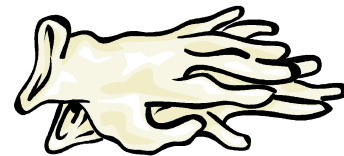
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Sterile Gloves

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## Now, let's make a First Aid Kit!

Ask an adult to help gather the materials listed above. Find an old coffee can, plastic zip-lock bag, old lunch box, plastic container or anything that can help hold your first aid supplies. Keep your first aid kit in a safe place you can easily get to.

# Let's Learn About Sound!

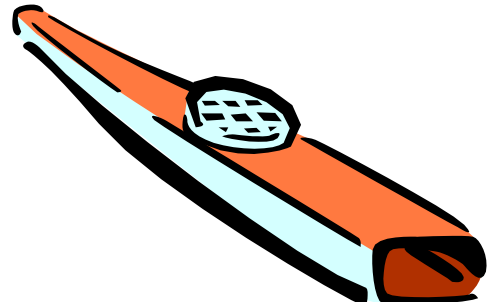


Sound is a vibration moving through air, water, or some other material. Our ear collects these vibrations and turns them into a signal which is sent to our brain.

## Let's Make Some Noise!

### Build a Kazoo

Materials: Toilet Paper Tube  
Waxed Paper  
Rubber Band  
Crayons  
Scissors



### Procedure:

1. Cut a square of waxed paper to cover the toilet paper tube.
2. Secure the waxed paper to the end of the toilet paper tube using a rubber band.
3. Decorate your kazoo using crayons.
4. Practice humming without your kazoo.
5. Now try to hum using your kazoo.

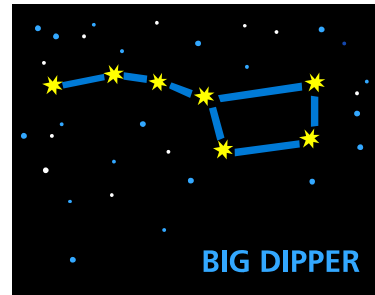
Does your humming noise sound different when your use a kazoo? \_\_\_\_\_ What is vibrating on your kazoo? \_\_\_\_\_  
Do you think that changing the length of the kazoo will change the sound? \_\_\_\_\_. Try it!

# Make a Constellation

Constellations are pictures made up of stars. They were often named after items people were familiar with like animals or mythical people.

## Constructing a Constellation

Materials: 8  $\frac{1}{2}$ " x 11" White Paper  
8  $\frac{1}{2}$ " x 11" Black Construction Paper  
Pencil  
Metal Pin  
Stars Cutouts  
Scissors  
Glue  
White Crayon



## Procedure:

1. Draw a picture of your constellation on the white paper. You may draw a constellation from one listed on the next page or create your own.
2. Line up your white and black papers. Using the metal pin, poke a hole through every corner of your design.
3. Cut out stars and glue one on every pin hole.
4. Connect the stars using a white crayon.



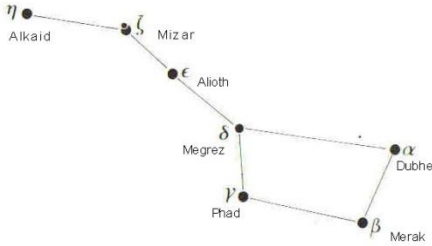
Star Cutout Pattern



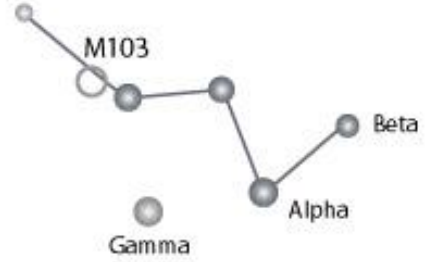
# Examples of Constellations



ALL YEAR

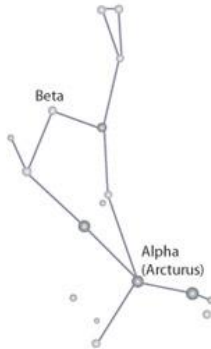


**Big Dipper**

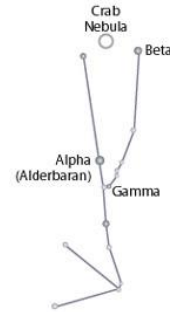


**Cassiopeia**

WINTER

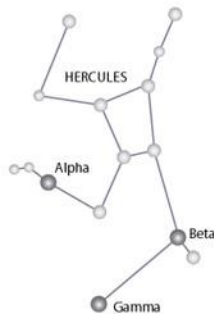


**Boötes**

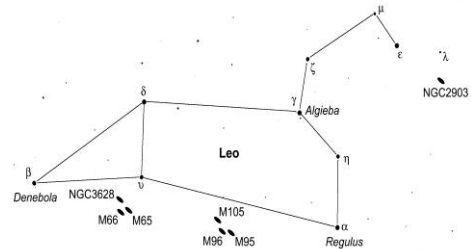


**Taurus**

SUMMER



**Hercules**



**Leo**



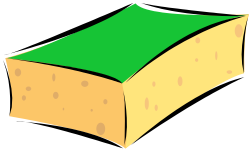
# Sink or Float?



Does it float? Try different objects and record if they sink or float.

## Materials:

Sponge  
Paper Clip  
Toothpick  
Marble  
Plastic Spoon  
Penny  
Plastic Straw  
Crayon  
Plastic Dishpan or Bucket, filled with water  
Towel  
Piece of Paper  
Pencil



## Procedure:

1. Divide your piece of paper into two. On one side write FLOAT and on the other write SINK.
2. Make predictions of which objects you think will sink and which will float.
3. Time for testing! With the container filled with water, place each object in it one at a time and record whether the object floats or sinks.

Which items did you guess correctly? \_\_\_\_\_

Why do you think some items sink and some float? \_\_\_\_\_



# All About Leaves

Let's collect, identify and preserve leaves!

## Materials:

Roll of Wax Paper  
 Fresh Fall Leaves  
 Plain, Scrap Paper  
 Iron for Pressing  
 9 x 12" Construction Paper  
 Stapler  
 Permanent Marker for Labeling Leaves  
 Tree Field Guide



## Procedure:

1. Take a nature walk and collect some fall leaves.
2. Using a tree field guide identify each leaf.
3. Press the leaves by layering them between plain paper. Repeat layers until all leaves are placed. Make a paper-and-leaf sandwich and place a heavy book on top. After a couple of days carefully remove the pressed leaves.
4. Cut a piece of waxed paper 2 feet long. Lay out the pressed leaves on the waxed paper in any pattern, but make sure to leave a 1 inch border on the long sides and a 2 inch border at each end.
5. Have an adult help you lay the waxed paper design on an ironing board. Place another layer of waxed paper on top of your design. Working gently and quickly use the iron to press the wax layers together. You will only need a second or two for the wax to adhere.
6. Use the construction paper to make a border around your waxed paper and adhere it using a stapler.
7. Have an adult help hang your artwork in a window!

# Leaf Identification Guide



Maple



Oak



Birch



Ash



Poplar



Black  
Walnut



Hickory



Sycamore



Basswood



Cottonwood

These are just a few types of leaves, please use a Tree Identification Guide for more information.





# Let's Grow Vegetables!

Let's identify seeds using a handy seed chart.



**Materials:**

- White Paper Plate
- Ruler
- Glue
- Markers
- 8 Kinds of Seeds (Example: Bean, Pea, Spinach, Corn, Radish, and Cucumber)

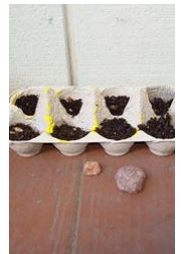
**Procedure:**

1. Divide the paper plate into eighths, like a pie. First divide the plate in half, then in fourths, followed by eighths. Draw lines using a marker and a ruler.
2. In each segment, glue a seed, label it, and draw a picture of the vegetable.

**It's now time to plant some seeds!**

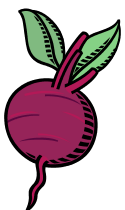
**Materials:**

- Seeds (leftover from the handy seed chart)
- Potting Soil
- Paper Egg Carton
- Water



**Procedure:**

1. Remove the lid from the egg carton and fill each section about  $\frac{3}{4}$  full with potting soil.
2. Place the seeds in the soil according to the package directions.
3. Place the egg carton in a location of natural light and water the seeds regularly.
4. Watch your garden grow! As the seedlings get larger, transplant them into your garden or larger pots by cutting the egg carton segment and planting the whole part in the ground.







# Measuring Rain

Rain is a type of precipitation that is often measured using a rain gauge. Let's make a rain gauge!

Materials:            Glass Jar  
                           Permanent Marker  
                           Ruler  
                           Stickers  
                           Paint



Procedure:

1. Place a ruler along a glass jar and mark every  $\frac{1}{2}$  inch using a permanent marker. Make sure to label the marks.
2. Decorate your rain gauge using stickers or paints however you would like.
3. Place rain gauge outside in a flat open area. Make sure to empty the jar after each rain.

Observations:

How much rain was in your rain gauge after a storm? \_\_\_\_\_

What other types of precipitation are there? \_\_\_\_\_





# References

- <http://www.education.com/activity/>
  - A great website for activity ideas.
- 4-H Mini Space. 4-H-911-6. By: Roylene Laswell. Purdue University Extension Service.  
<http://www.extension.purdue.edu/extmedia/4H/4H-911-6.pdf>
- Cloverbuds Activities Packet. By: Richard Moreland and Lori K. Hutchins. University of Minnesota Extension Service.
- Cloverbud Program Manual. Montana 4-H.  
<http://www.montana4h.org/#project:53>.
  - Environmental Science/Plants & Animals Activity Guide
  - Science and Technology Activity Guide

4-H Members,



We have compiled new project material for 4-H Cloverbuds. The material will now be on a three year rotation, with 4-H Activity Book A, B, and C. Each year, all Cloverbuds will be doing projects out of the same activity book.

The Cloverbud Activity Book is designed to introduce Cloverbuds to many different 4-H areas. The new booklets provide activities in Animal Sciences/Animal Life, Expressive Arts, Family, Home, and Health, Science, and Natural Resources.

Please give feedback about the new 4-H Cloverbud Activity Book and return it to the UW Extension Office.

Sincerely,

Michelle Grimm

Taylor County 4-H Youth Development Agent

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[www.uwex.edu/ces/cty/taylor/index.html](http://www.uwex.edu/ces/cty/taylor/index.html)



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Comments about the new 4-H Cloverbud Activity Book: \_\_\_\_\_

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# 4-H Cloverbud Activity Book B



Produced by: Kim Drolshagen, Michelle Grimm and Michelle Schroeder, 2010

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# My 4-H Club



My Name: \_\_\_\_\_

4-H Club Name: \_\_\_\_\_

4-H Leader's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Other Club Members: \_\_\_\_\_

4-H Youth Development Agent's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

# A Little Bit About Me



Name: \_\_\_\_\_

Age: \_\_\_\_\_

My Family members: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

My favorite activities: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# 4-H Club Emblem

The four leaf clover with the letter "H" on each leaf, which stands for head, heart, hands and health.

## 4-H Club Colors

Green and White. Green symbolizes nature's most common color. White symbolizes purity.

## 4-H Motto

**"TO MAKE THE BEST BETTER"**  
This motto challenges everyone involved in 4-H to do the very best job they can.



# 4-H Pledge

I pledge:

**My Head to Clearer Thinking (Right hand points to forehead)**

**Head**



**My Heart to Greater Loyalty (Right hand over heart)**

**Heart**



**My Hands to Larger Service (Arms slightly bent, palms up)**

**Hands**



**And My Health to Better Living for My Club,  
My Community, My Country and My World (Arms at Side)**

**Health**





# My Club and County Activities and Events

Activities and events I was part of:

Event	Date



# Animal Ears

Have you ever noticed that animals have larger ears than us? Animals, such as dogs, have much better hearing than we do. What do you think it would be like if you had animal ears? \_\_\_\_\_

Do you think you would be able to hear better or worse? \_\_\_\_\_ Why do you think so? \_\_\_\_\_

## Let's make animal ears!

Materials: Paper or Styrofoam Cups  
Scissors

### Procedure:

1. Using the scissors, cut the bottoms out of 2 cups.
2. Hold the smaller end of the cups up to your ears.
3. Have someone whisper, make a loud noise, talk and sing while using your "animal ears."
4. Try placing your ears in different directions to see how the sound changes.

Did the sound change as the direction of the ears changed? \_\_\_\_\_ How did the sound change? Did it get louder or quieter? \_\_\_\_\_

Could you hear better with the cups on? \_\_\_\_\_



# Feathered Friends

Birds are our feathered friends. We can see different birds outside all year round. Different birds eat different things like, seeds, insects, worms, fruits and nectar.

Can you name any birds you have seen before? \_\_\_\_\_

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## Let's make a bird feeder!

Materials: Bagel, cut in half so there are two circles  
Peanut Butter  
Bird Seed  
String  
Plastic Knife  
Newspaper  
Paper Plate



## Procedure:

1. Spread newspaper over your table and place some bird seed on the paper plate.
2. Tie a string to your bagel so it can be hung outside.
3. Using the plastic knife, cover the bagel with peanut butter.
4. Dip the bagel in the bird seed making sure all of the peanut butter is covered.
5. Find a good tree branch outside to hang your bird feeder on.
6. Watch for birds!



# Which Birds Have You Seen?

Watch your bird feeder and go for a nature hike and check  
any birds you see!



American  
Goldfinch



Northern  
Cardinal



Blue Jay



Black-Capped  
Chickadee



White Breasted  
Nuthatch



American Robin

# Time to Explore on a Nature Hike



Let's explore nature by searching for animals!

With some friends and an adult, go on a nature hike and see how many animals you can find. Watch the animals and see what they are doing. Are they eating or sleeping?

Make sure to bring a camera to take pictures or a pencil and paper so you can draw the animals you see!

Draw a picture of some animals you saw here.



On my hike I saw a \_\_\_\_\_.  
Describe what it looked like. \_\_\_\_\_

Where did you see it? \_\_\_\_\_  
What was it doing? \_\_\_\_\_





# Operation Espionage

It's time for some detective work!

The mission today is to write a secret message and then reveal it.

Materials: 1 teaspoon Baking Soda  
1 teaspoon Water  
Grape Juice Concentrate  
Cotton Swab  
Cotton Ball  
Bowl  
Paper or Plastic Cups  
Paper  
Paper Towel



Procedure:

1. In a cup, mix 1 teaspoon baking soda with 1 teaspoon water. This is the invisible ink.
2. On a sheet of white paper, draw a picture using the invisible ink and a cotton swab by dipping the cotton swab into the ink.
3. Let the paper dry completely (this will take around ten minutes.)
4. Time to reveal the secret message! Place some grape juice concentrate into a cup. Dip the cotton ball into the grape juice concentrate making sure to squeeze out the extra juice. Gently pat the cotton ball over the paper.

What happened to the message when it dried? \_\_\_\_\_

Did your message appear? \_\_\_\_\_

What color is the message? \_\_\_\_\_

Try using other liquids such as cranberry juice, colored water and apple juice to decipher your secret message! Did any of these liquids work? \_\_\_\_\_

# Music Time!

Let's gather a band and make some music!



## Shaker

**Materials:** Empty Plastic Bottle with Lid  
Beads, Pebbles or Uncooked Rice

**Procedure:**

1. Place the beads, pebbles or uncooked rice into the plastic bottle and screw the lid on.
2. Try using different sized bottles and different items inside to see if the sound changes!

## Finger Plinker

**Materials:** Shoebox with Lid  
Scissors  
Different Sized Rubber Bands



**Procedure:**

1. Cut a circle out of the middle of the shoe box lid using the scissors.
2. Place the lid on the shoe box and place the rubber bands around it so they cover the hole in the lid.
3. Play by plucking or strumming the rubber bands. Do the different sized rubber bands make different sounds?

## Paper Plate Maraca

**Materials:** Paper Plates  
Staples or Glue  
Dried Beans or Small Rocks  
Paints or Markers



**Procedure:**

1. Place some beans or small rocks between two paper plates.
2. Secure the paper plates by gluing or stapling around the edges.
3. Decorate and shake! Do dried beans sound different than rocks?





# Straw-Blown Painting

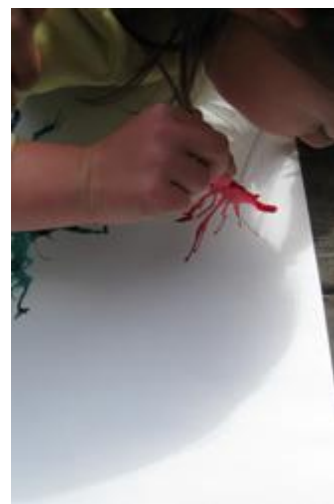
Let's create a masterpiece!

Materials: A Rimmed Baking Sheet  
Aluminum Foil  
White Paper  
Tempera Paint or Watercolor Paint  
A Cup of Water  
Plastic Straw



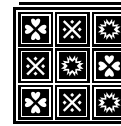
Procedure:

1. Line the baking sheet with aluminum foil and place the white paper on the sheet.
2. Pour tiny puddles of paint in a couple spots on the paper. Add a few drops of water to the paint to help it spread a little easier.
3. Take the straw and blow through it on the different puddles. Try blowing hard, soft and in different directions to see what happens.
4. Lay the painting flat and allow to dry.





# Quilt Squares



Quilts tell art and family stories. Most quilts are made from pieces of fabric or material that is cut into shapes. These shapes are sewn together to make quilt blocks. The blocks are then sewn together to make a quilt.

Let's make our initials in a quilt square!

Materials:

2 - 6"x6" Pieces of White Poster Board  
 Several Colors of Construction Paper or Craft Foam  
 Square Shape Patterns  
 Triangle Shape Patterns  
 Glue Stick  
 Scissors  
 Pencil  
 Hole Punch  
 Yarn

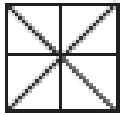


Procedure:

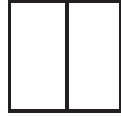
1. Find the quilt square on the Quilt Squares Activity Page that matches the first letter of your first name. Choose the shapes from patterns that are in this quilt square.
2. Use the scissors to cut out the shape patterns that you need to make your first quilt square.
3. Trace the shape patterns onto any color of construction paper or craft foam.
4. Use the scissors to cut out the shapes you traced.
5. Glue the shapes onto one of the pieces of poster board. Be sure to make your quilt square look the same as the quilt square for the first letter of your name. Set this quilt square aside.
6. Repeat these steps for the first letter of your last name.
7. Using the hole punch, punch 3 holes in the bottom of your first quilt square and 3 holes in the top of your second square (first letter of last name.)
8. Use yarn to tie the two squares together by tying a loop through each set of holes.
9. Punch 2 holes in the top of your first quilt square.
10. Use yarn to make a hanger for your quilt square initials.

# Quilt Squares Activity Page

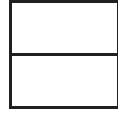
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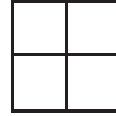
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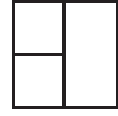
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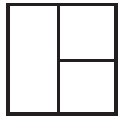
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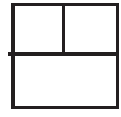
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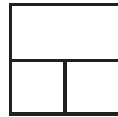
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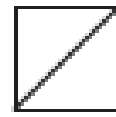
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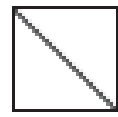
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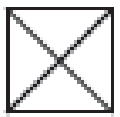
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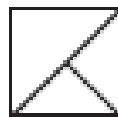
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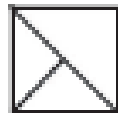
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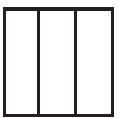
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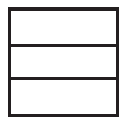
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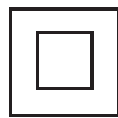
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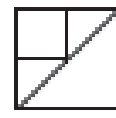
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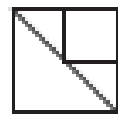
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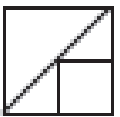
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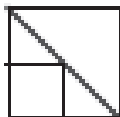
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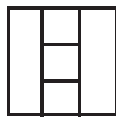
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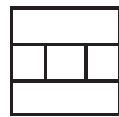
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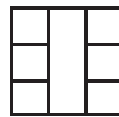
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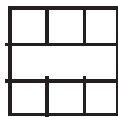
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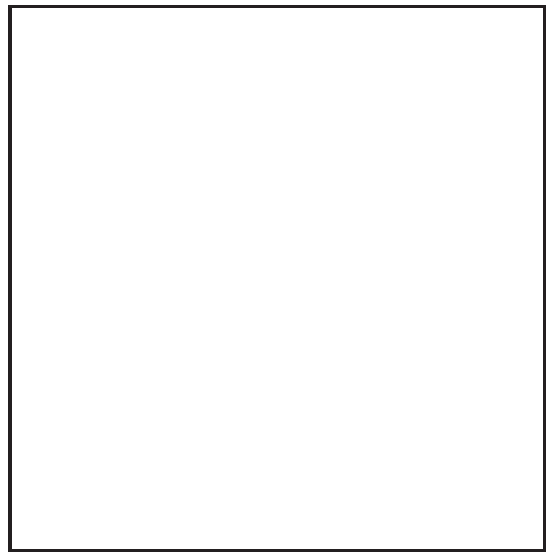
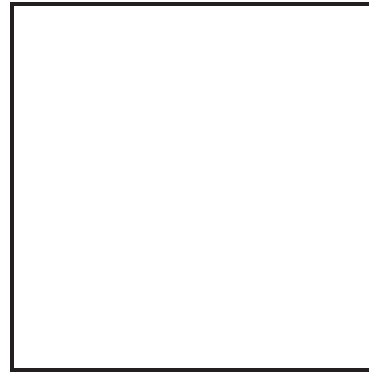
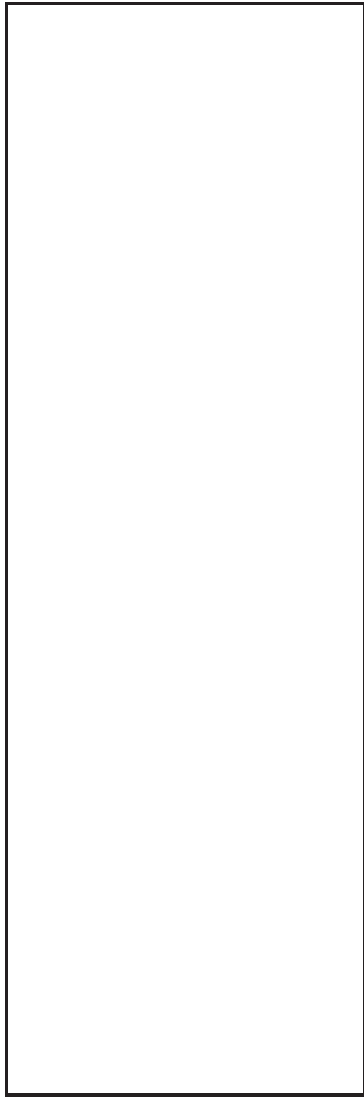
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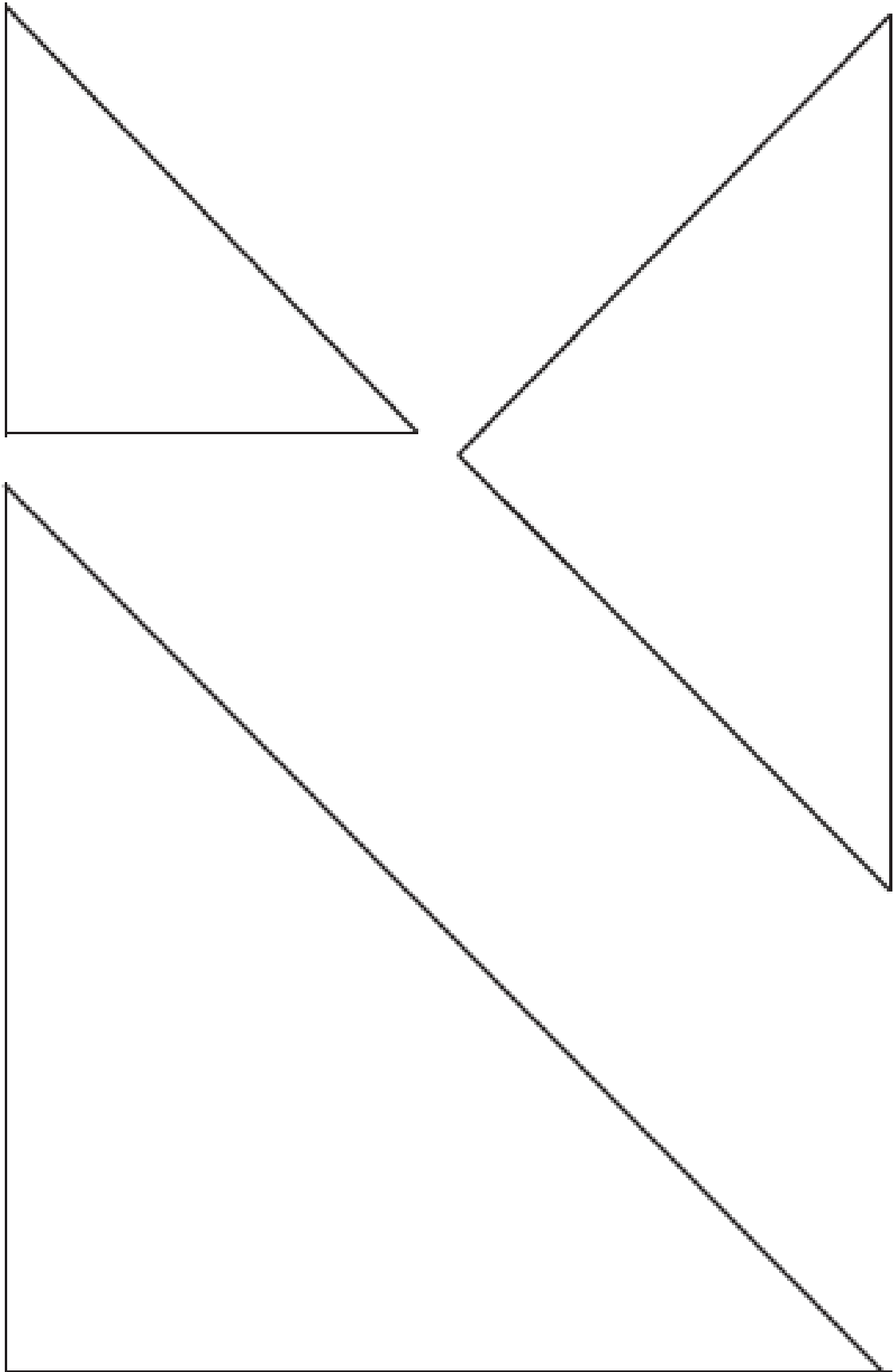


# Square Shape Patterns





# Triangle Shape Patterns







# Fruity Milkshake

Let's make a delicious and nutritious snack!  
Make sure to ask an adult for help!

Ingredients: 2 Cups Skim or Low-Fat Milk  
1 Cup Diced Fruit such as Apples, Pears,  
Strawberries, Bananas, Peaches, Berries or  
Melon

Dash of Ground Cinnamon

Equipment: Blender  
Liquid Measuring Cups  
Dry Measuring Cups  
Measuring Spoons  
Cups



Procedure:

1. Wash your hands with warm water and soap.
2. In a blender, combine milk and fruit.
3. Blend until smooth.
4. Pour into cups and top with a dash of ground cinnamon
5. Enjoy!

Can you think of any other fruits you could add to your smoothie?

---







# Five a Day



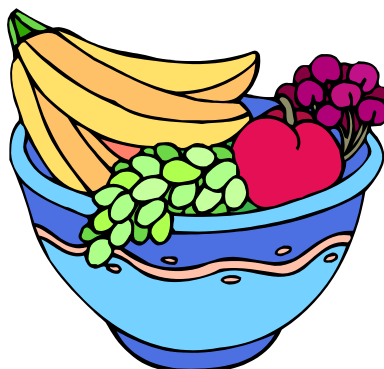
It is important to get 3 servings of vegetables and 2 servings of fruit every day.

Complete the My Fruit and Vegetable Diary to see if you can get five servings of fruits and vegetables a day!

What types of fruits could you try? \_\_\_\_\_

What types of vegetables could you try? \_\_\_\_\_

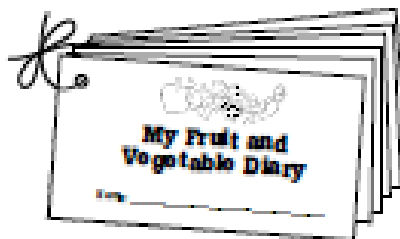
How many serving of fruits and vegetables do you need every day? \_\_\_\_\_



Name: \_\_\_\_\_

# Make a Fruit and Vegetable Diary

1. Cut out the pages on the dotted lines.
2. Put them in the correct order.
3. Have your teacher make a hole through the circle.
4. Tie the pages together.
5. Draw or write the fruits and vegetables you eat.
6. How many fruits and vegetables did you eat each day?



## My Fruit and Vegetable Diary

Name: \_\_\_\_\_

### MONDAY

Fruits

Vegetables

### TUESDAY

Fruits

Vegetables

### WEDNESDAY

Fruits

Vegetables

### THURSDAY

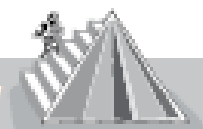
Fruits

Vegetables

### FRIDAY

Fruits

Vegetables







# Takeoff!



Construct 2 different paper airplanes to see which one travels farther!

Materials: 8  $\frac{1}{2}$ " x 11" sheets of paper  
 Paper Clips  
 Simple Airplane Template and Dart Paper Airplane Template  
 Measuring Tape  
 Pencil



Procedure:

1. Construct one airplane using the Simple Airplane Template and one airplane using the Dart Paper Airplane Template.
2. Test each airplane by gliding it. Measure the distance they traveled and record them on a sheet of paper. Test each plane three times to compare the results.
3. Try adding a paper clip to each plane's nose.
4. Retest each airplane by gliding it. Measure the distance they traveled and record them on a sheet of paper.

Which paper airplane design traveled farther? \_\_\_\_\_

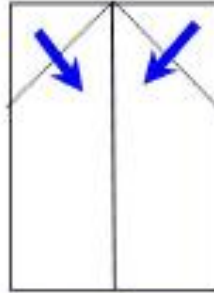
Did adding the paper clip change the distance the plane traveled? \_\_\_\_\_



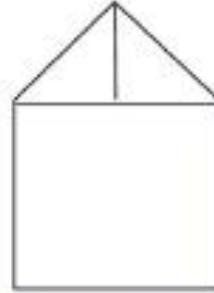
A Simple Paper Airplane Template  
(fold at dotted lines)



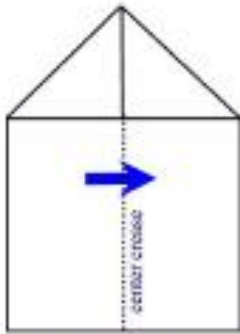
Crease paper in half



Fold corners down



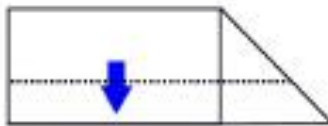
Should look like this



Fold plane in half at center crease



Should look like this



Fold wings down

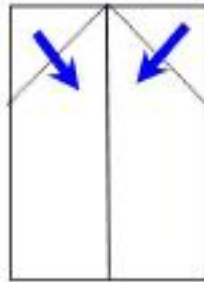


Should look like this

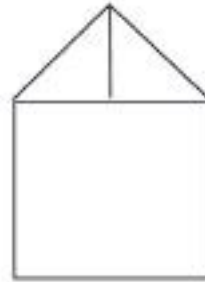
Dart Paper Airplane Template  
(fold at dotted lines)



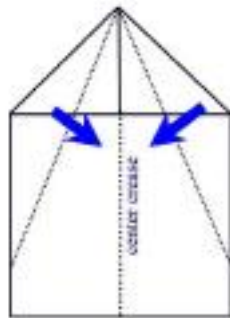
Crease paper in half



Fold corners down



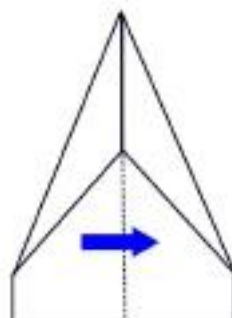
Should look like this



Fold sides into center crease



Should look like this



Fold plane in half at center crease



Fold wings down



Should look like this

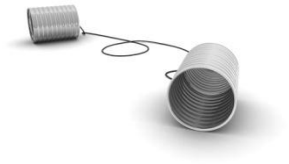


# Sound Vibrations

Construct string telephones to hear sound travel.

Sound is a vibration moving through air, water, or some other material. Our ear collects these vibrations and turns them into a signal which is sent to our brain.

**Materials:** 2 Plastic Cups  
String  
Paper Clips  
Sharpened Pencil (For Poking Holes)



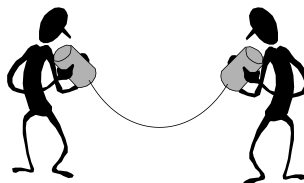
**Procedure:**

1. Carefully poke a small hole in the bottom of each cup using the pencil.
2. Tie the paper clip to one end of the string.
3. Thread the other end of the string through the hole in the inside bottom of the cup. The paperclip will keep the string from going all the way through the hole.
4. Then thread the string through the hole in the second cup, but do it from the outside of the cup.
5. Tie the second paper clip to the other end of the string. The paper clip should be inside just like the first cup.
6. Then, pull the cups so the string is tight and have another person hold the other cup. Talk to the person while they have the cup held to their ear.

What is the farthest distance you can get the telephone to work?

---

Try using soup cans or different sized cups to see if your telephones work farther apart.





# Fly a Kite

Let's build a kite!

- Materials:
- Colored 11" x 17" Paper
  - Tape
  - Ruler
  - Pencil
  - Popsicle Stick
  - Hole Punch
  - 6 to 10 Feet of String or Yarn
  - Plastic Bag Cut in 1" Spiral or Streamers
  - Crayons or Markers



## Procedure:

1. Place your paper horizontally on the table with the long ends on top and bottom.
2. Fold in half taking the left side to the right side. Leave the paper folded.
3. From the folded edge at the top, measure in  $\frac{1}{2}$ " and mark this spot. From the opposite end at the bottom, measure in 3" and mark this spot. Draw a line to connect these two marks.
4. Fold along this line from right to left and then left to right to make a crease for both wings. Pinching the first fold (the straight fold) open up both wings and place a tape along the fold to hold in place.
5. Turn your paper slightly to where the point is at top and the angled fold is straight up and down. Take your stick and tape across the top of the wings of the kite.
6. Turning the kite over, punch a hole about  $\frac{1}{3}$  of the way down from the top and about  $\frac{1}{2}$ " from the fold. Secure the hole with tape or a paper reinforcement. Tie your string or yarn through the hole. You can tape the end of the string to a popsicle stick for a handle.
7. Lastly, cut a tape the spiraled plastic bag to create a tail for your kite. Decorate your kite and take it out to fly.





# Nature Rubbings

Living things all have texture. By making nature rubbings you can see things you may not have otherwise noticed. When you make a rubbing of a leaf, the veins, stem and shape stand out. You can also compare the texture of items by making rubbings of them.

## Let's observe nature!

**Materials:** Newspaper  
Crayons (With Paper Peeled Off)  
Fresh Leaves, Wild Flowers, Weeds, Grasses, Twigs or Reeds  
White Paper



## Procedure:

1. Go on a nature walk and collect some leaves, wild flowers, weeds, grasses, twigs or reeds.
2. Spread newspaper onto the work area.
3. Place your findings onto the newspaper.
4. Place the paper on top of the leaves or wildflowers you would like to make rubbings of.
5. Hold the crayon sideways and rub over the objects.
6. Watch the leaves and wildflowers appear as you rub the crayon over them.
7. Try making different patterns by arranging the materials in rows or circles.
8. Now, let's go outside with our paper and crayon and make rubbings from surfaces such as brick walls, tree trunks or anything else with texture!



# Growing with Groundwater

Plants need water to grow, and it comes from precipitation and groundwater. We are going to build a miniature terrarium that will allow our plants to grow using groundwater as the source of water.

## Time to plant!

### Materials:

Clear Jar with Lid

Gravel

Potting Soil

Spray Bottle Filled with Water

Plant Seeds (Herbs or Vegetables Grow Quickly)

Large Spoon or Trowel



### Procedure:

1. Fill the bottom of your jar with 1 to 2 inches of gravel and add about 4 inches of potting soil on top of the gravel.
2. Plant the seeds as stated on the package.
3. Water generously with a spray bottle. Watch as the water trickles down through the soil and into the gravel layer. The water you see below the surface of the soil is called groundwater and will be used by the seeds.
4. Secure the lid and place in a sunny window. Over the next few days watch as the sides of the jar become foggy. This is condensation or clouds. As the water on the walls of the jar becomes heavy it will fall to the ground as rain and will become groundwater again.
5. If your jar becomes too foggy, open the lid slightly for a day or two. If you leave the lid off too long, the soil may dry out. If this happens just spray some more water in the jar.
6. Watch your seeds grow!



# What Do Seeds Need?

Plants just like humans need certain things to survive. The four things plants need to survive are water, sunlight, food and air.

## Let's Experiment!

Let's experiment with the needs of seeds. We will try planting seeds and placing one to grow in the light and the other in a dark place.

Which plant do you think will sprout more quickly the plant in the light or the plant in the dark? \_\_\_\_\_

What are the 4 things plants need to survive? \_\_\_\_\_

Materials: 2 Plastic Cups or Pots  
Potting Soil  
Seeds  
Water



Procedure:

1. Fill the plastic cups or pots 2/3 full with potting soil.
2. Plant the seeds according to the directions on the package.
3. Water the seeds so the soil is damp.
4. Place one cup or pot in a well lit area and the other in a dark area without light.
5. Water regularly and watch them grow!

What happened to the seed that was placed in the light? \_\_\_\_\_

What happened to the seed that was placed in the dark? \_\_\_\_\_





# References

- <http://www.education.com/activity/>
  - A great website for activity ideas.
- 4-H Mini Before You Sew. By: Roylene Laswell. Purdue University Extension Service.
- Cloverbuds Activities Packet. By: Richard Moreland and Lori K. Hutchins. University of Minnesota Extension Service.
- Cloverbud Program Manual. Montana 4-H.  
<http://www.montana4h.org/#project:53>.
  - Science and Technology Activity Guide
- Family Flyers - 4-H Aerospace Lesson. ACTas112. University of Wisconsin Extension.
- Fruity Milkshake. Kangaroo Jump 5: Power Up the Day Family Newsletter. Michigan State University Extension
- Growing with Groundwater. The Groundwater Foundation.  
<http://www.groundwater.org/kc/activity4.html>
- Lesson 3 Vary Your Veggies and Focus on Fruits. "Make a Fruit and Vegetable Diary." USDA Team Nutrition. MyPyramid.  
[http://teamn nutrition.usda.gov/resources/mpk1\\_lesson3.pdf](http://teamn nutrition.usda.gov/resources/mpk1_lesson3.pdf)
- Operation Espionage. PBS Kids - Zoom Sci  
<http://pbskids.org/zoom/activities/sci/>

# 4-H Cloverbud Activity Book C



Produced by: Kim Drolshagen, Michelle Grimm and Michelle Schroeder, 2010

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# My 4-H Club



My Name: \_\_\_\_\_

4-H Club Name: \_\_\_\_\_

4-H Leader's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Other Club Members: \_\_\_\_\_

\_\_\_\_\_

4-H Youth Development Agent's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

# A Little Bit About Me



Name: \_\_\_\_\_

Age: \_\_\_\_\_

My Family members: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

My favorite activities: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





# 4-H Club Emblem

The four leaf clover with the letter "H" on each leaf, which stands for head, heart, hands and health.

## 4-H Club Colors

Green and White. Green symbolizes nature's most common color. White symbolizes purity.

## 4-H Motto

**"TO MAKE THE BEST BETTER"**  
This motto challenges everyone involved in 4-H to do the very best job they can.

# 4-H Pledge

I pledge:

**My Head to Clearer Thinking (Right hand points to forehead)**

**Head**



**My Heart to Greater Loyalty (Right hand over heart)**

**Heart**



**My Hands to Larger Service (Arms slightly bent, palms up)**

**Hands**



**And My Health to Better Living for My Club,  
My Community, My Country and My World (Arms at Side)**

**Health**





# My Club and County Activities and Events

Activities and events I was part of:

Event	Date



# Animal Tracks



Have you ever been on a walk and seen some tracks and wondered what made them? Animals make tracks as they move allowing us to study their habits.

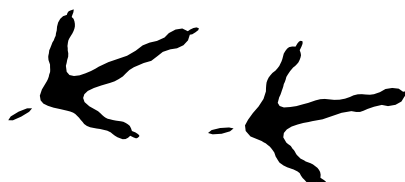
Let's go on a search for animal tracks!

Using the animal tracks handout, go with an adult searching for animal tracks! You can look in your backyard, a park or a woods.

What animals did you find in your backyard? \_\_\_\_\_

What animals did you find in a woods or a park? \_\_\_\_\_

What type of ground (grass, mud or snow) is it easier to find animal tracks? \_\_\_\_\_



# Matching Tracks

Draw a line matching the animal to its track!



# Matching Tracks



# Matching Tracks



# Animal Track Guide

## Striped Skunk



Front Foot



Hind Foot

## Opossum



Front Foot



Hind Foot

## Raccoon



Front Foot



Hind Foot

## Gray Squirrel



Hind Feet



Front Feet

## Rabbit



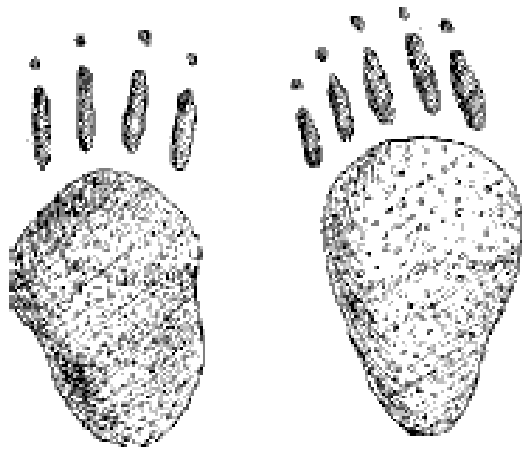
Hind Feet



Front Feet



Porcupine



Front Foot

Hind Foot

Chipmunk

Hind Feet



Front Feet

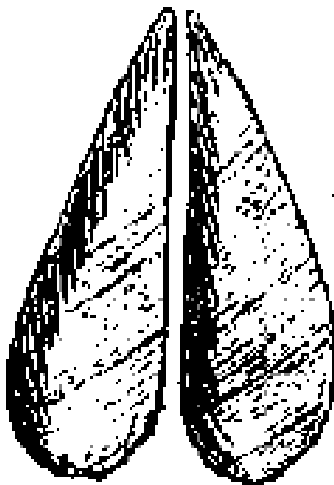


Dog/Coyote



Deer

Walking



Running, or  
Walking in Mud



Wild Turkey





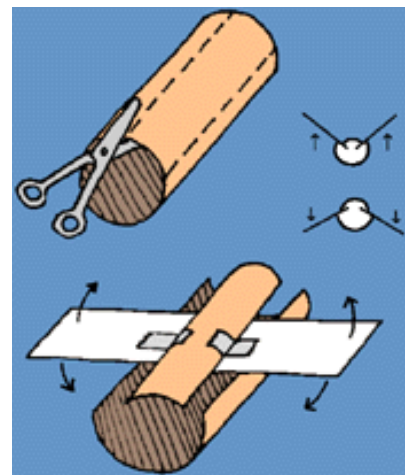
# Beautiful Butterflies

Have you ever wondered how a butterfly fluttered?

Butterflies flap their wings by contracting the thorax (the body part where the legs and wings are attached).

Let's build a model to see how it works!

Materials: Cardboard Toilet Paper Tube  
Index Card  
Scissors  
Clear Tape  
Markers



Procedure:

1. Make 2 longitudinal cuts along the toilet paper tube. Cut the tube so there are two parts - one larger and one smaller.
2. Cut an index card in half and tape each half to an edge of the larger portion of the tube. Leave about  $1 \frac{1}{2}$  inch overhang towards the middle of the tube.
3. Tape the edges of the smaller portion of the tube to the inner edges of the cards. Hold the tube (the thorax) with the smaller part of the tube on the top.
4. While holding the bottom tube section (the larger one), press down and then release the upper section. The index card "wings" will begin to flap up and down.
5. Decorate your butterfly!

Where are the wings of a butterfly attached?





# Toad Abode

Let's build a house for a toad and observe these fascinating creatures. Watch for toads feasting on their favorite food - bugs! Toads eat insects, grubs, slugs, worms and other invertebrates. They can eat up to 110 a day!

**Materials:** 4 Inch Diameter Terra Cotta Pot  
Acrylic Paints  
Paint Brush  
Newspapers  
Small Spade



## Procedure:

1. Spread newspapers on your workspace.
2. Decorate the pot using paints.
3. Once the pot has dried, take it outside to a spot in the soil (a flower bed or a spot under a bush or tree works great).
4. Take the spade and dig down in the soil a little ways to burry the pot half way in the ground on its side. Leave the soil turned up and don't pat it down.
5. Now it's time to wait for a toad! If you don't get a toad in one spot, try another!

Describe what a toad looks like. \_\_\_\_\_

Name some things a toad may eat. \_\_\_\_\_



# Let's Sculpt



Place a picture of your artwork here.



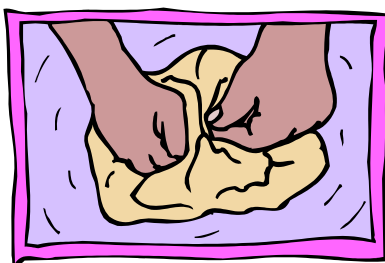
Make a sculpture using homemade play dough!

Materials:  $\frac{1}{4}$  Cup Salt  
1 Cup Flour  
 $\frac{1}{4}$  Cup Water



Procedure:

1. Combine the salt, flour and water in a large mixing bowl.
2. Knead or stir the mixture until it is like clay consistency. You may need to add more water.
3. Divide the dough into as many pieces as you would like colors. Add food coloring to each piece of dough to get the color you would like.
4. Make a sculpture out of your dough and let sit overnight to dry.





# Mime Time



Miming is the acting out of something, using no words or sounds.

Materials: Any Props That Are Handy

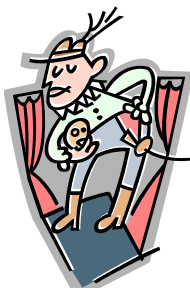
Procedure:

1. Gather a group of friends and family and take turns guessing actions such as foods with action (popcorn, toast in a toaster, eggs, sizzling bacon, etc) or any other actions you can come up with.
2. Now, try pretending like you have hundreds of strings attached to all muscles in your body. Pretend an outside force is pulling from above. All parts of your face should snap up. Do the same with forces pulling from the right, left and down.

What are some actions you could act out by miming? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





# Making Mosaics

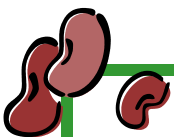


Mosaics are pictures made out of different objects glued together. They can be made out of any objects, such as tiles, pieces of glass, beads, beans, seeds, squares of paper, etc.

**Materials:** Tag Board or Heavy Paper  
White Glue  
5-6 Kinds of Dried Beans or Seeds  
Newspaper

**Procedure:**

1. Place newspaper over the workspace.
2. Place the tag board or heavy paper on the workspace and glue the beans or seeds to it to make a picture.
3. Let sit to dry.



Place a picture of your artwork here.



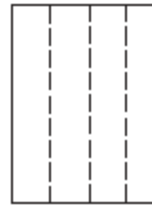
# Tic-Tac-Toe Weaving

Take a close look at the fabric of your clothes. What do you see? Fabrics and baskets are often made by weaving. Weaving is where threads are put over and under each other in a pattern.

Time for some Tic-Tac-Toe

**Materials:**

- 1 - 8  $\frac{1}{2}$  Inch x 11 Inch Piece of Colored Card Stock
- 2 - 8  $\frac{1}{2}$  Inch x 11 Inch Pieces of Colored Paper
- 12 Piece of Poster Board That Are Different Colors and Different Colors From the Colored Paper
- Scissors
- Glue
- 1 Letter Sized Envelope
- Tic-Tac-Toe Pattern Page



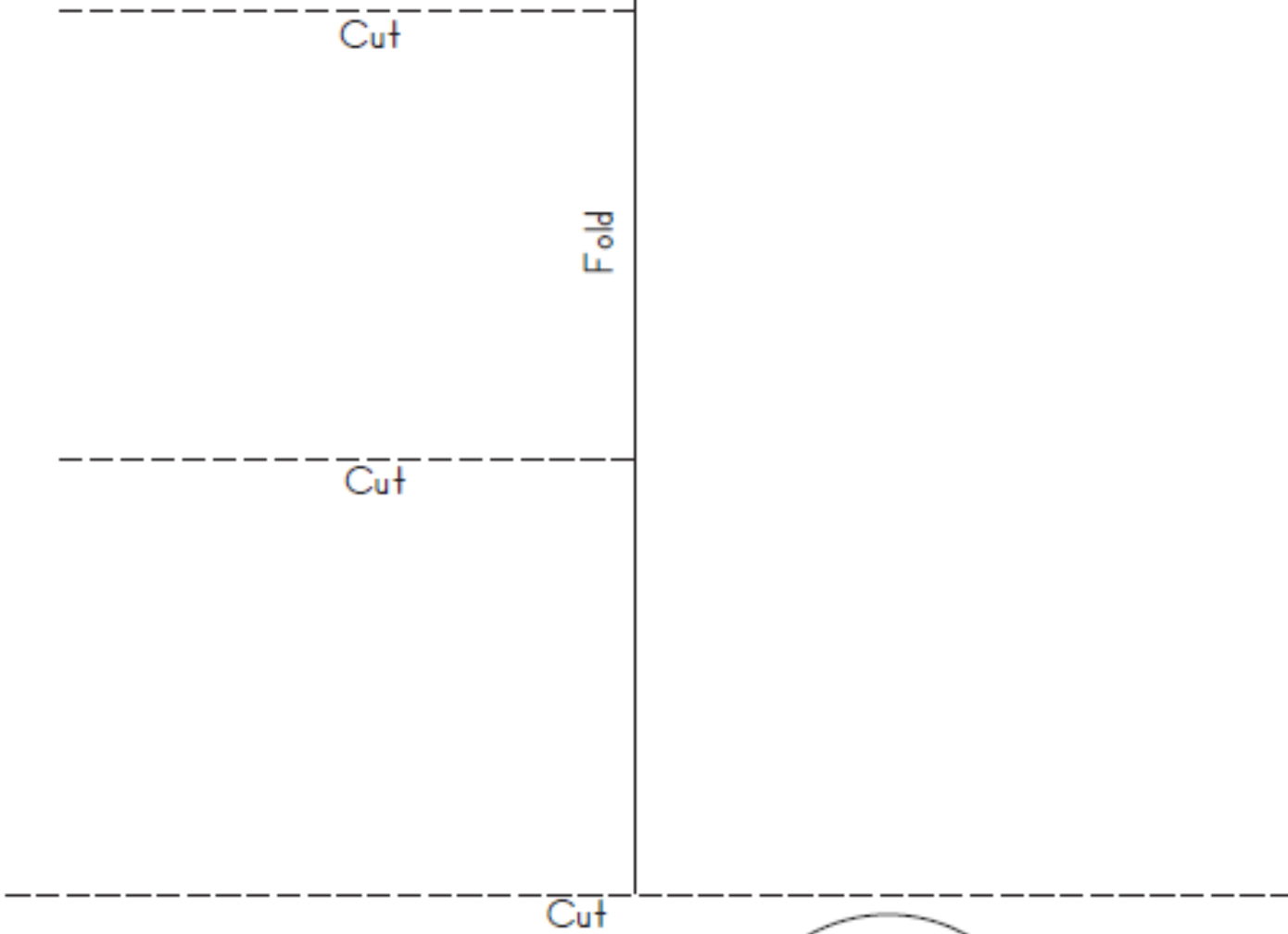
**Procedure:**

1. Fold one of the 8  $\frac{1}{2}$ " x 11" pieces of colored paper in half lengthwise. Fold this paper in half again lengthwise so when it is opened there are four sections.
2. Use the scissors to cut along the folds so there are four paper strips. Lay the strips aside. (Only 3 of the strips are going to be used)
3. Lay the Tic-Tac-Toe Pattern on top of the second 8  $\frac{1}{2}$ " x 11" piece of colored paper. Cut off the bottom portion to create a square.
4. With the pattern still on top of the colored paper, fold the papers in half on the fold line.
5. Starting at the fold, cut along the dotted line. Unfold both papers and lay the pattern piece aside.
6. Weave the first strip through the square with the cuts in it. Weave the strip first under one and over one, continuing to the opposite side of the paper. The next strip is woven first over one and then under one, continuing as before. Push the first strip to the top of the cuts and push the second strip close to the first strip. Weave the last strip through the square using the under one, over one pattern the first strip used. The square should look like a tic-tac-toe board.
7. Glue the woven tic-tac-toe board to the card stock and cut off excess strip paper.
8. Lay the tic-tac-toe board so the card stock side is facing up. Glue the envelope onto the board. Lay the board aside.
9. Cut out the pattern piece for the markers. Trace the round pattern piece onto the colored poster board nine times.
10. Cut out the markers and store in the envelope on the back of your tic-tac-toe board.
11. Play!





# Tic-Tac-Toe Pattern





# Scrumptious Sundae

Let's Make a Delicious and Nutritious Snack!

Make sure to ask an adult for help!

- Ingredients:  $\frac{1}{2}$  Cup Low-Fat Flavored Yogurt  
 $\frac{1}{2}$  Graham Cracker Sheet  
 $\frac{1}{2}$  Banana
- Equipment: Plastic Knife  
 Small Bowl  
 Spoon



Procedure:

1. Before making the snack, make sure to wash your hands with soap and warm water.
2. Measure the yogurt into a cup
3. Break the graham cracker into small pieces and put on top of the yogurt.
4. Peel and slice the banana and place it on top of the sundae.
5. Enjoy!

This snack is made with everyday foods that are healthy for us, like low-fat yogurt and fruit. Can you think of any other everyday foods you could use to make a similar snack? \_\_\_\_\_

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# Family Flag



Flags are used to represent something like a state or country. Years ago families had flags representing themselves. These flags had designs of special things and talents. These flags were called coats of arms.

Think about your family's special likes and talents. Design a flag or coat of arms to represent your family.

You may construct your flag using anything you would like. You may draw a flag, make it using construction paper and craft items or sew a flag.

I added \_\_\_\_\_ to my family's flag because \_\_\_\_\_

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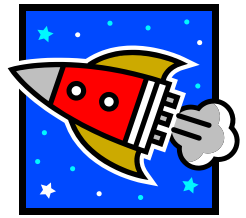


Place a picture of your flag or coat of arms here.





# Balloon Rocket



A rocket is a type of spacecraft that is powered by gases that are forced out of one end.

Lets use our aerospace skills to make a balloon rocket!

Materials: 6 Feet of String  
4 Inch Piece of Drinking Straw  
2 Chairs  
9 Inch Round Balloon  
Spring Clothespin  
Transparent Tape



Procedure:

1. Thread the string through the straw and tie both ends of the string to the backs of the chairs.
2. Position the chairs so the string between them is very tight.
3. Inflate the balloon and twist the open end of the balloon and secure it with the clothespin.
4. Move the straw to one end of the string.
5. Tape the inflated balloon to the straw.
6. Time for takeoff! Carefully remove the clothespin from the balloon.

How far did your balloon travel? \_\_\_\_\_

Now try using different amounts of air in your balloon to see if it travels farther or shorter. What happened when you tried different amounts of air? \_\_\_\_\_



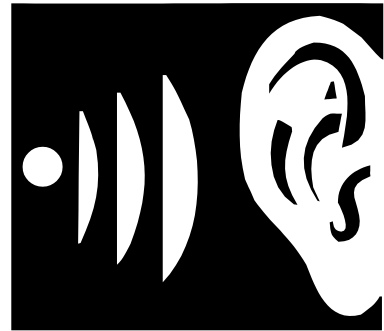
# Noisy Cups

Sound vibrations travel through liquids, gases and solids. In this activity sound is traveling through a solid.

Try making noise with a dry string, a wet string and a string covered with dishwashing liquid. Which one will make the loudest sound? \_\_\_\_\_  
Which will make the quietest sound? \_\_\_\_\_

Let's make some noise!

Materials: Paper or Plastic cups  
Large Paper Clips  
Cotton String  
Scissors  
Sharpened Pencil  
Tape  
Water  
Dishwashing Liquid



Procedure:

1. Poke a small hole in the bottom of a cup with a pencil.
2. Pull 2 feet of string through the bottom of the cup and tie a paper clip to the end that's inside the cup.
3. Pull the string tight, so the paper clip rests at the bottom of the cup. Tape the paper clip flat.
4. Hold the cup in one hand and the string in the other near the bottom of the cup.
5. Squeeze the string tightly between your fingers and thumb and slide them down the string as fast as you can.
6. Now, let's experiment with water! Wet the string with water and slide your fingers along the string again. Try once more using dishwashing liquid.

Which way made the loudest noise? \_\_\_\_\_

Which made the quietest noise? \_\_\_\_\_

Was there any surprises? \_\_\_\_\_

# The Mystery of Water and Oil

Does water and oil mix? Let's try mixing water and oil to see what happens!

Make a prediction! What do you think will happen to the water and vegetable oil when they get put into the same container? \_\_\_\_\_

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Materials: Plastic Bottle with Lid  
Food Coloring  
Water  
Vegetable Oil  
Funnel  
Measuring Cup



Procedure:

1. Place  $\frac{1}{2}$  cup of water into the plastic bottle.
  2. Add a few drops of food coloring to the water.
  3. Add  $\frac{1}{2}$  cup of vegetable oil to the plastic bottle and secure the cap on the bottle.
  4. Observe the location of each liquid. Which liquid is on top? \_\_\_\_\_  
Which liquid is on the bottom? \_\_\_\_\_
  5. Time to shake! Make sure the lid is secured tightly and shake up the bottle. What happens to the liquids? \_\_\_\_\_  
Where is each liquid located now? \_\_\_\_\_
  6. Let the bottle rest on a flat surface for 2 minutes and observe what happens. What happened to the oil and water? \_\_\_\_\_
- 

Which liquid do you think is lighter? \_\_\_\_\_

Why? \_\_\_\_\_



# Cave Formations

Have you ever wondered what those crystal-like things in caves were?

Caves have stalactites and stalagmites that make formations over thousands of years. Stalactites hold tight to the ceiling of the cave and stalagmites are mighty and stand up on the cave floor.

Let's make our own cave formations!

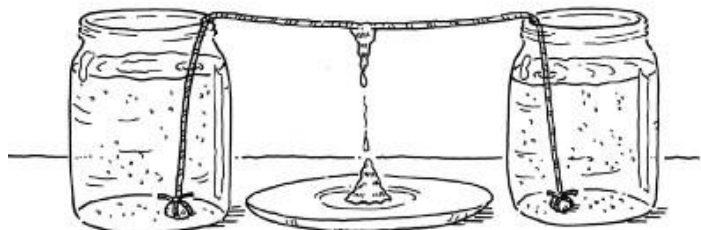
Materials: 2 Jars  
Water  
Epsom Salts  
String  
Small Weights (i.e. Rocks or Fishing Sinkers)  
Plate

Procedure:

1. Fill both jars with warm water and mix in Epsom salts until no more will dissolve.
2. Wet the string and tie a weight to each end. Drop one end of the string into each jar.
3. Put a plate between the two jars with the string hanging over the plate.
4. Let the stalactites and stalagmites begin! Make sure to check your cave every day to see if any have formed.

Did you have any stalactites form? \_\_\_\_\_ Where were they located? \_\_\_\_\_

Did you have any stalagmites form? \_\_\_\_\_ Where were they located? \_\_\_\_\_





# Ocean in a Bottle

Have you ever been amazed by the movement of waves on a beach?

Waves are energy in motion. The waves or energy force the sand to move along the shore.

Let's experiment with waves and make an ocean in a bottle!

**Materials:** Jar or Glass Bottle with Lid  
Hot Glue Gun - Ask an adult for help!  
Water  
Vegetable Oil  
Blue Food Coloring  
Sand  
Seashells



**Procedure:**

1. Spoon some sand into a clean jar.
2. Fill the jar  $\frac{1}{2}$  full with water. Add blue food coloring to the bottle one drop at a time until you get the blue color you like.
3. Add a few shells to your ocean.
4. Add vegetable oil until the bottle is almost full. Make sure to leave a small space at the top for air.
5. Have an adult take the hot glue gun and put glue around the lid of the bottle. Quickly place a lid on the bottle.
6. Turn the ocean on its side and watch as the waves go back and forth. Do any of the sand particles move? \_\_\_\_\_
7. Shake up the bottle and observe what happens.  
What happens to the sand? \_\_\_\_\_ What happens to the shells? \_\_\_\_\_ Does all the sand move as the waves move or just a little at a time? \_\_\_\_\_



# Nature Scavenger Hunt



Let's go on a scavenger hunt!

Using the Nature Scavenger Hunt Checklist go on a scavenger hunt in a park, woods or your backyard with some friends and an adult.

Bring a camera or pencil so you can get a picture of what you saw during your hunt while using your checklist. Make sure not to disrupt the area you are hunting in.

See how many items you can find!

Were you able to find every thing on the list? \_\_\_\_\_

What was the most difficult to find? \_\_\_\_\_

Did you notice anything while doing the scavenger hunt you may not have otherwise seen? \_\_\_\_\_

What was the most interesting thing you saw? \_\_\_\_\_

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# Nature Scavenger Hunt Checklist



See how many items you can find on the list and then draw a picture of each one. See if you can identify the leaf or animal!

- Feather
- Insect with Wings
- Animal Tracks
- Something a Squirrel Would Eat
- Hole in a Tree
- Something a Bird Might Eat
- An Animal that has Fur
- Spider Web
- Singing Bird
- A Fallen Leaf
- Leaf that has been Partially Eaten
- A Coniferous Tree
- A Deciduous Tree
- An Animal that Likes to be Near Water
- Bird's Nest



# References

- <http://www.education.com/activity/>
  - A great website for activity ideas.
- 4-H Mini Before You Sew. By: Roylene Laswell. Purdue University Extension Service.
- Clover Kids Beautiful Butterflies. Iowa State Extension.  
[www.extension.iastate.edu/4H/Clover/Documents/ButterfliesCK.doc](http://www.extension.iastate.edu/4H/Clover/Documents/ButterfliesCK.doc)
- Cloverbud Program Manual. Montana 4-H.  
<http://www.montana4h.org/#project:53>.
  - Environment/Earth Science Activity Guide
- Mime and Yours Cloverbuds Activities Packet. By: Richard Mooreland and Lori K. Hutchins. University of Minnesota Extension Service.
- Screaming String Thing. Fetch! PBS Go Kids.  
<http://www.pbs.org/parents/fetch/activities/act/index.html>
- Stalactite and Stalagmite Experiment for Kids. TLC Family.  
<http://tlc.howstuffworks.com/family/nature-activities-for-kids1.htm>