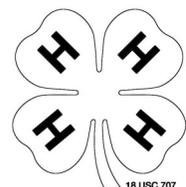
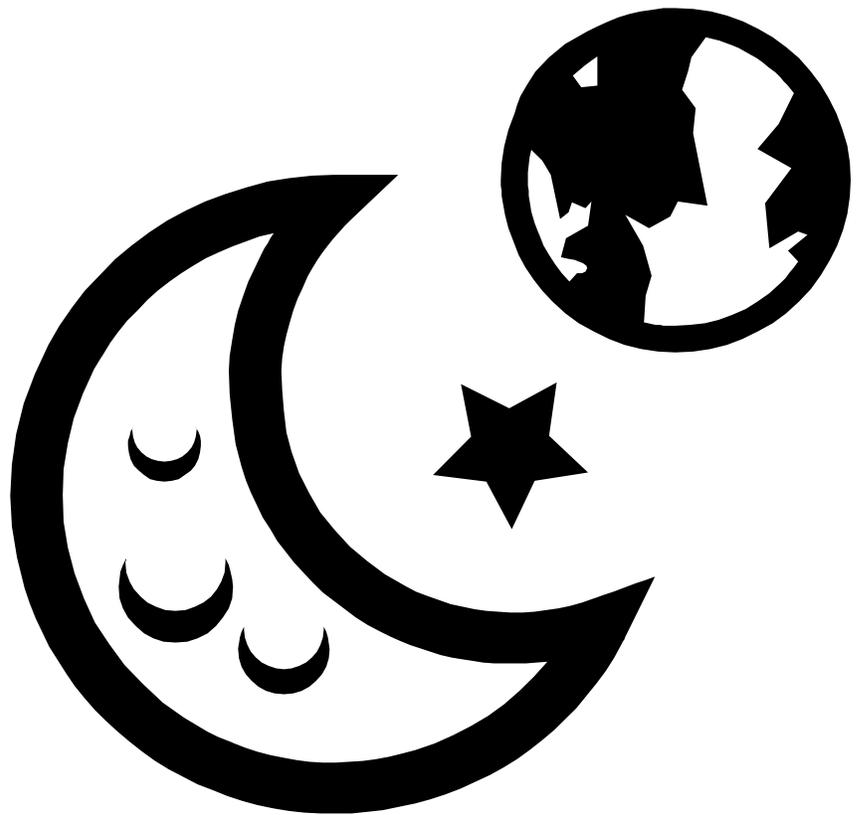


Hendricks County

Mini 4-H



Sun, Stars, & Space



Developed by:

Karla Smith, Program Assistant-Purdue Extension Hendricks County

Mini 4-H Parent's Page

We welcome you and your child to the Mini 4-H program. Mini 4-H is for boys and girls who are in either first or second grade during the current 4-H year. Mini 4-H is designed to supplement and introduce both first and second graders to the Hendricks County 4-H program.

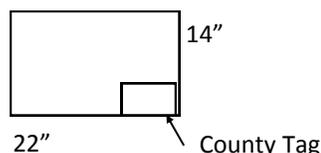
As a Mini 4-H parent, your job is to guide your child through the activities. It is suggested that you do not complete the activities for them. Instead, help them, guide them, work with them, and let them do all that they possibly can. Learning by doing is the best educational tool that we can provide for our youth.

Additionally, the Mini 4-H program is set up to allow your child to exhibit a project at the 4-H Fair. This project is based on information within this manual. The 4-H Fair is an exciting time for 4-H members and families. It is a week that allows community youth to showcase their talents, interests and enthusiasm for learning.

Mini 4-H is fun! Your child will certainly enjoy it. You can have fun too, by guiding and helping as your child participates in the program. Encourage and praise your child as he/she has fun learning and sharing with you.

Rules

1. Mini 4-H is open to any boy or girl who is enrolled in either the first or second grade on January 1st of the current year.
2. Any Mini 4-H participant may enroll in one (1) or two (2) projects. There are 15 projects to choose from. **Participants may exhibit only one (1) activity from a project book.** Additional activities can be done at home, but will not be exhibited.
3. Mini 4-H participants enroll in the County Mini 4-H club, and their projects are done at home.
4. **ALL POSTER EXHIBITS MUST:**
 - A. Have a solid, stiff backing, which is 14" high by 22" wide. This can be HEAVY cardboard or foam core board. The board must be able to stand by itself (Foam core board is available in the Extension Office for a minimal cost)
 - B. Be positioned HORIZONTALLY.
 - C. Have a total exhibit board no larger than 14" high by 22" wide.



Leave a 4" x 3" open space in the lower right hand corner of your poster exhibit for the county tag.

- D. Be COMPLETELY COVERED with CLEAR PLASTIC material. (Available in the Extension Office for a minimal cost.)
5. Mini 4-H participants will complete activities in the book. The Record Sheet located in the back of the project book needs to be completed and will be turned in with their exhibit at the Fair.

Mini 4-Her's Page

Welcome to Mini 4-H! You are now a member of the 4-H family. You are a special person. Mini 4-Her's have a lot of fun! There are many activities for you to explore. You can try new things. You can share it with your friends and family. Mom, Dad, or another adult can help you with your project. Bring your project to the 4-H Fair and lots of people will be able to see what you have done. You also get a ribbon made just for 4-Her's.

Here a few things to know about 4-H.

The 4-H Symbol: A four-leaf clover with an "H" on each leaf

4-H Colors: Green and White

The 4-H Motto: "To make the best, better"

4-H PLEDGE

I pledge my **HEAD** to clearer thinking,

I promise to use my head to make good choices.

my **HEART** to greater loyalty,

I promise to use my heart to be a good friend.

My **HANDS** to larger service,

I promise to use my hands to do helpful things for others.

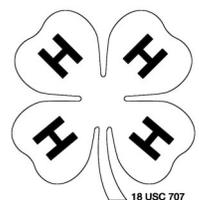
And my **HEALTH** to better living,

I promise to take care of my body and to show others to live in a healthy way.

For my club, my community,

I promise to help my group, my community,

My country, and my world.



Sun, Stars, & Space Activities

Have you ever thought about traveling into space? Not many people get the chance to leave the planet Earth, but some do. In this project, you will learn about the sun, moon and planets. You will learn to read and follow directions, choose an activity, be neat, and be creative.

Before you get started:

Pick an activity you would like to do.

Read the directions carefully.

Make sure you have all of the needed materials.

Ask an adult or teenager to help you.

Clean up your work area and put all of your supplies away when you are finished.

Complete your Mini 4-H Book pages.

Complete the COUNTY TAG found at the end of this book and attach it to your exhibit.

ENJOY!

Exhibit:

First Grade: - Poster: Sun Clock , Poster: Night Skies, **or** Poster: Outer Space Art
- Completed Record Sheet

Second Grade: - Notebook: Shadow Science, Poster: If I Were An Astronaut..., **or**
Planet Mobile
- Completed Record Sheet

First Grade

Poster: Sun Clock

Needed Materials:

- Pencil
- White Paper
- Large Bowl
- Sunny Day
- Poster Board (see page 3)
- Glue

Directions:

Trace a circle on the paper using the bowl as a pattern.

Lay the paper on the ground in a sunny spot. Poke the pencil through the middle of the paper, so it is standing straight up.

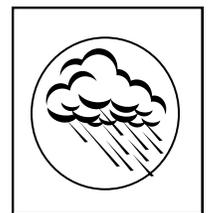
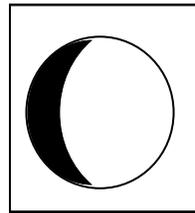
Mark on the edge of the circle where the sun is making a shadow. Do this every hour or two. Write down the hour next to that spot (ex. 2:00 P.M.).

If the circle is left in the same spot, you will be able to tell what time it is each day by checking the shadow on the circle.

Clean up your work area.

Mount the paper on poster board (see page 22).

If this is your exhibit for the county fair, attach the County Tag.



Poster: Night Skies

Needed Materials:

- ***Night Sky Worksheet***, in manual
- White Chalk
- Poster Board (see page 3)
- Glue
- Aerosol Hairspray

Directions:

You will be observing the night sky to see how the Earth and moon move over time.

Pick a time when it is dark outside (8:00 or later if it is Summer). Always check the night sky at the same time of day.

If you can see the moon, color the portion of the moon (circle) that is visible, using the white chalk.

Once you have finished your chart using chalk, have an adult help you spray the page with aerosol hairspray. This will keep the chalk from smearing.

Write the date under each picture.

If you cannot see the moon, draw what you are able to see. It might be clouds, or rain.

Mount worksheet on poster board (see page 22).

If you have enough space on your poster, write down what you observed in the night sky during the month.

If this is your exhibit for the county fair, attach the County Tag.

Poster: Outer Space Art

Needed Materials:

- Black Construction Paper
- Bright Colored Chalk (no dark colors)
- Water
- Poster Board (see page 3)
- Glue

Directions:

Research the sun, moon, stars and universe.

Draw pictures of things found in space by dipping the chalk in water, then drawing on your paper.

Clean up your work area.

Mount on poster board (see page 22).

If this is your exhibit for the county fair, attach the County Tag.

Second Grade

Notebook: Shadow Science

Needed Materials:

- Pencil
- White Paper
- Mini-Child, in manual
- Large Bowl
- Sunny Day
- Notebook that will hold an 8 1/2" X 11" paper
- ***My Shadow Observations Sheet***, in manual
- Tape

Directions:

In a notebook, tape ***My Shadow Observation Sheet*** to one of the pages. Write down your thoughts on what makes your shadow dance around and change its shape. Your guess is called a **hypothesis**.

Cut out mini-child, in manual, and tape it so it is standing along the top of the pencil.

Trace a circle, using the bowl, on the white paper and cut it out.

Place the paper on the ground, and push the pencil through the middle of it.

Trace the shadow of your person on the paper.

Each hour or two, continue tracing the shadow of your person.

Make your last shadow tracing when the sun starts to set.

Record the following on the ***My Shadow Observation*** Sheet:

What difference do you see in the shadow as the day goes on?

What time of day did you trace the shadow?

How big is the shadow?

Is the shadow tall and skinny or short and squashed?

Where is the sun, close to the ground or high in the sky?

Notebook: Shadow Science (continued)

How did the shadows change?

Did the shadows change the way you thought they would?

Why do you think your shadow almost disappears when the sun is straight over the pencil in the middle of the day?

When your drawings are finished, tape them to the pages in your notebook.

Put a title on the outside of your notebook

Clean up your work area.

If this is your exhibit for the county fair, attach the County Tag.

Mini-child used for Shadow Science:



If I Were An Astronaut ...

Needed Materials:

- *If I were an astronaut...*, in manual
- Pencil
- Poster Board (see page 3)
- Colored Pencils or Crayons
- Glue

Directions:

Research the sun, moon, stars and our galaxy.

Use your imagination and write a story about what you would do or find if you were an astronaut using *If I were an astronaut...*, in manual

Mount story on a poster board (see page 22).

Draw a picture or pictures to go with your story and mount it to the poster board.

If this is your exhibit for the county fair, attach the County Tag.

Planet Mobile

Needed Materials:

- Cardboard
- Scissors
- Pencil
- Circle Objects to Trace (bowls, mugs, cups, plates etc.)
- Hole Punch
- Yarn, String or Fishing Line
- Tempera Paint and Paint Brush
- 9" (or greater) Heavy Paper Plate, Frisbee or similar item

Directions:

Look at pictures of planets to learn more about each planet and its order in our solar system.

Find a cardboard box or scraps that can be used for the planets. Trace around circular items to create the circles for the planets. Large planets should have larger circles.

Make a large circle for the sun!

Cut out the circles. Ask an adult to help.

Cover table with newspaper and paint the circles so they look like each planet. Let them dry. Paint the other side if you wish. Let dry.

Punch a hole in the center of your plate. If you used a Frisbee or something hard, let an adult make holes with a nail.

Punch holes in the top of each planet and tie a string to each one. Knot the string to stay attached.

Tie a longer string to the sun. Pull the string up through the bottom of the plate.. Make a knot on the bottom side of the plate to help keep the string in place. The long string on the top side of the plate can be looped and knotted so you can hand your mobile.

Attach the planets around the sun by punching holes around the outer edge of the plate. You may need to pull the strings to different lengths to balance the planets. Experiment!

Tie knots to secure.

Planet Mobile (continued)

Tie a longer string to the sun. Pull the string up through the bottom of the plate.. Make a knot on the bottom side of the plate to help keep the string in place. The long string on the top side of the plate can be looped and knotted so you can hang your mobile.

Attach the planets around the sun by punching holes around the outer edge of the plate. You may need to pull the strings to different lengths to balance the planets. Experiment!

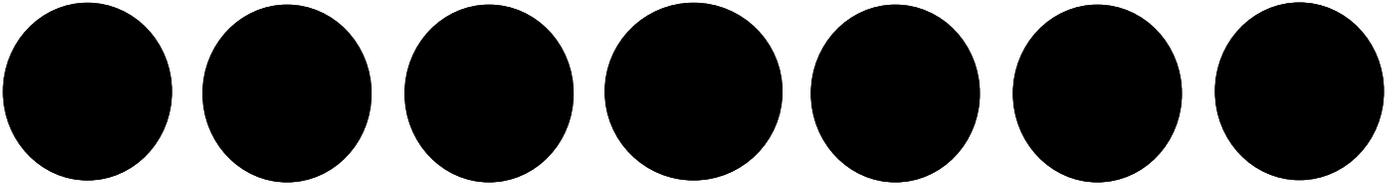
Tie knots to secure.

Clean up your work area.

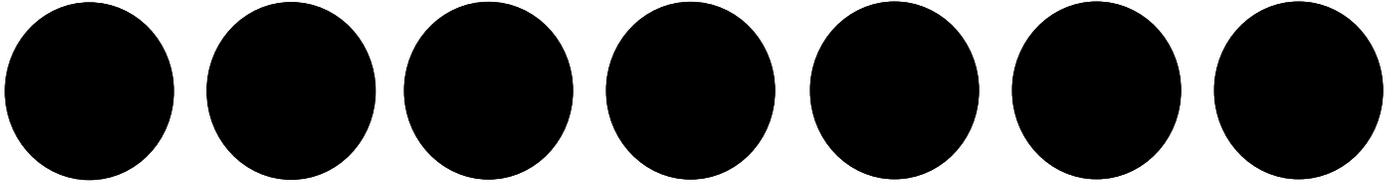
If this is your exhibit for the county fair, attach the County Tag.



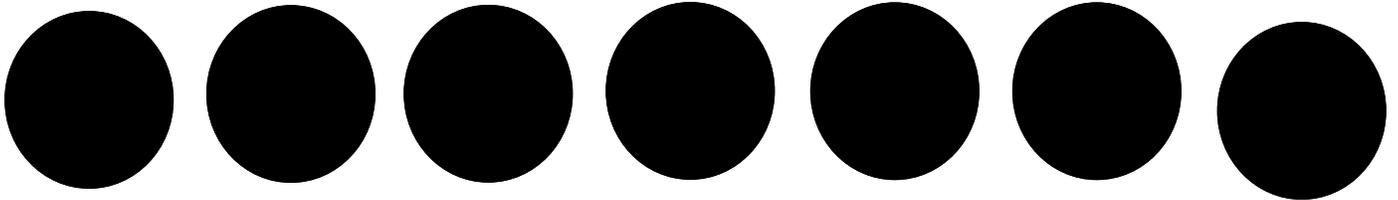
Night Sky Worksheet



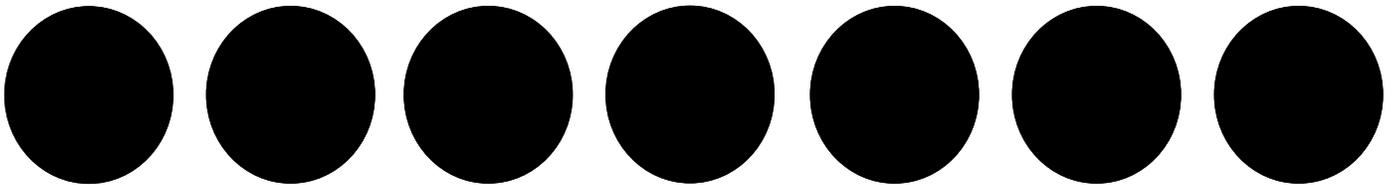
Seven empty rectangular boxes for labeling the moon phases in the first row.



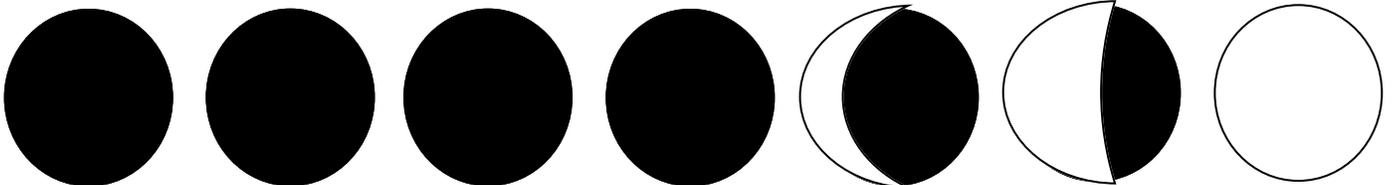
Seven empty rectangular boxes for labeling the moon phases in the second row.



Seven empty rectangular boxes for labeling the moon phases in the third row.



Seven empty rectangular boxes for labeling the moon phases in the fourth row.



Seven empty rectangular boxes for labeling the moon phases in the fifth row.

Example

Example

Example

My Shadow Observation Sheet

My hypothesis:

What difference in the shadow do you see as the day goes on?

What time of day did you trace the shadow?

How big is the shadow?

Is the shadow tall and skinny or short and squashed?

Where is the sun, close to the ground or high in the sky?

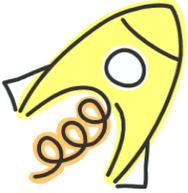
How did the shadows change?

Did the shadows change the way you thought they would?

Why do you think your shadow almost disappears when the sun is straight over the pencil in the middle of the day?

Our Solar System

Find the words listed below in the word search.



A	X	M	U	H	S	J	B	L	O	K	U
J	N	V	E	G	N	R	U	T	A	S	M
O	J	R	A	R	O	P	L	D	B	T	W
G	V	E	R	F	C	H	S	K	U	Q	N
S	N	T	T	O	Q	U	W	M	J	S	E
A	U	B	H	L	G	M	R	L	P	J	P
O	Y	P	H	S	A	V	S	Y	C	A	T
K	M	S	R	V	E	N	U	S	P	L	U
P	L	A	K	S	T	U	N	T	V	E	N
C	M	O	E	X	I	R	A	K	Q	P	E
W	A	T	S	P	O	C	R	Z	N	W	B
Y	O	R	E	T	I	P	U	J	S	N	J

JUPITER

URANUS

VENUS

MERCURY

EARTH

NEPTUNE

MARS

SATURN

4-H Fair Exhibit

Listed below are projects you can exhibit at the 4-H Fair judging. Check the fair book for the date and time it is due. The fair book may also list special exhibit rules. You may only exhibit 1 project from this book.

If you have any questions about your projects, please call your Mini 4-H Leader or the Extension Office.

INCLUDE completed Record Sheet with your exhibit.

First Grade

- Sun Clock
- Night Skies
- Outer Space Art

Second Grade

- Shadow Science
- If I Were An Astronaut ...
- Planet Mobile

Mounting Your Pictures

Needed Materials:

- Rubber Cement or double-sided tape
- Scissors
- Poster Board
- Clear Plastic

Directions:

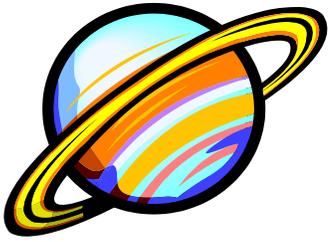
- An adult or teenager can help you cut the poster board. Cut a piece of poster board or foam board so it is 14" high by 22" wide.
- Use rubber cement or small pieces of double sided tape to secure items to your poster.
- Arrange the items neatly on your board. Be sure to include a title for your poster.
- Poster must be completely covered by a clear plastic material.

Good Luck at the 4-H Fair!

Cut County Tag below for your exhibit.

COUNTY TAG 

MINI 4-H EXHIBIT		
PROJECT: (Circle One)		
Arts and Crafts	Bugs	Collections
Cookie Decorating	Dinosaurs	Farm Animals
Foods	Gardening	Models
Nature/Plants/Trees	Oceans	Pets
Sewing	Sun/Stars/Space	Wildlife
NAME: _____		



Mini 4-H Sun, Stars, & Space Record Sheet

My favorite part of this project was _____

_____.

I learned _____

_____.

If I could go in to space, I would fly _____

_____.

Name:

Date:
