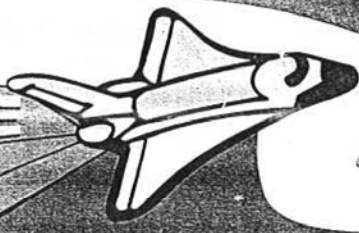


AEROSPACE
Workforce
Skills for Life
Series



Pre-Flight



PROJECT EXHIBIT TAG

Mini 4-H Rockets

Name: _____

Age: _____

Project Activity Guide

Name: _____

Date Started Stage 1 : _____

Year in Aerospace _____

Aerospace Supporters

Thanks is extended to the following individuals, organizations and businesses for making the 4-H Aerospace "Work Force Skills for Life" Series possible.

Special recognition is extended to Pitsco, Inc. for their generous support of this curricula.



Stan and Irene Meinen
E N D O W M E N T



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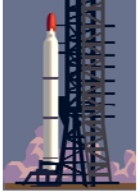
Academy of Aviation, AMA, Air National Guard, CAP NCR/DAE, Estes Industries, Flying Cloud ATC, 4-H Missions in Space, Helicopter Flight, Inc, Honeywell, IA E-SET, Jeppesen Sanderson, MN Dept. of Education, NASA, 99's, National Weather Service, NC First Flight Centennial, Pitsco, Inc, Starbase Minnesota, Strand Air Service, Tri-State Aviation, Vermilion Community College; Northwest Airlines; Newton's Apple

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Launch Pad



Aerospace Supporters

Launch Pad

Helper's Information

Pre-Flight Aerospace Achievement Program

5..4..3..2..1..

Wonderful Wings

What Do You Do?

Spacey Suit

Hangar Talk

Prop Shop

4-H CCS Products

Inside Front Cover

1

2

3

4

6

10

12

14

16

Inside Back Cover



There looks like a lot of fun things to do here!

Stage 1 Pre-Flight

5...4...3...2...1...
Wonderful Wings
What Do You Do?
Spacey Suit

Stage 2 Lift-Off

Rockets Away!
Gnome of Your Own
I Want to Be...
Family Flyers
From Here to There!
Follow That Shadow
Can I fly Today?
Which Way is Up?
Angle of Attack!
Up, Up and Away
Round and Round
Charlie Oscar Delta Echo
From Nose to Tail

Stage 3 Reaching New Heights

Rippin' Rockets
Fly'n Show
Let's Go Launching
Attitudes, Altitudes and Airspeed
Flying Feathers
Follow That Shadow
Flying My Way
Shuttle on a String
Powerful Payload
Flying Fighters
Mustangs to Zeros
Copiers and Robbers
Just Blowing Through

Stage 4 Pre-Flight

The Yokes on You!
High Flying Mission
Future Pilot
Ace Instructor
Cross Country
Knowledgeable Navigator
Space Notes
Brouhaha Box Kite
Care in the Air
Elevator Magic
Airport Issues
My Personal Qualities

Flight Crew Aerospace Group Activity Guide

Afterburner Aerospace Quiz Bowl
Aircraft Fire Rescue

Top Gun
Far Out!
Community Airport Field Day
Flight 747
Aerospace Proficiency Game
Traffic Cop in the Sky
Mission Aerospace Skillathon
Aerospace Glossary Games
Touring An Airport
Full of Hot Air

Aerospace Community Organizer Guide

You, The Community
Aerospace Organizer
Aerospace Resources
Organizing Aerospace Youth
Groups
Sign-up Night Program
Supporting Aerospace
Volunteers
Orientation Workshop
Outline
Scavenger Hunt
Aerospace Program
Incentives
Achievement Program
Certificate
Project Meeting Ideas

Helper's Information

Welcome to Pre-Flight, the first of four youth activity guides in the Adventures in Aerospace "Workforce Skills for Life" Series.

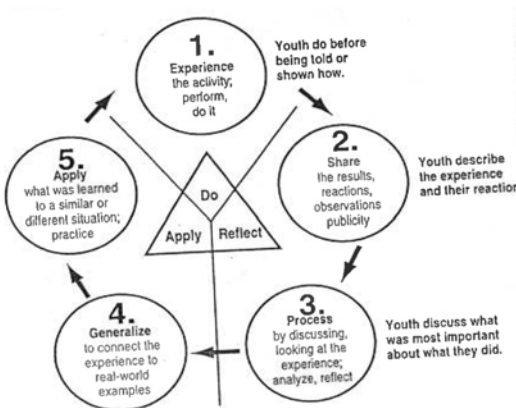
You have an exciting and challenging role as the helper of a young person interested in exploring aerospace. Your three key responsibilities include the following:

- Review this guide and *Flight Crew*, the Aerospace Group Activity Helper's Guide
- Support the youth in his/her efforts to set goals and complete the Pre-Flight Aerospace Achievement Program
- Serve as a resource person to help connect youth with the community, resource materials and others knowledgeable about aerospace.

By encouraging the young person to set goals and work to complete them, there will be many opportunities to help them develop important life skills they will use each day. These skills include creative thinking, decision making, problem solving, learning how to learn, accepting responsibility, managing time, teaming with others and participating as a member of a team. How you are involved will often determine how successful the youth is in developing these critical skills.

The Experiential Learning Model

The experiential learning model is used throughout this series to maximize the opportunities for strong youth development outcomes. The model emphasizes a youth centered rather than leader, teacher or helper centered approach. In other words the youth is encouraged to first learn by doing before being told or shown how whenever possible instead of being guided step by step through the activity. Then the youth shares what happened;



discusses what was most important; sees how this experience and the life skill practiced relates to his or her own everyday experiences; and finally applies what was learned to a new situation. This model stresses the use of open-ended questions that build on what the youth does and says. More information on this model and how to use it are found in *Flight Crew*, the Aerospace Group Activity Guide and the Aerospace Community Organizer's Guide, the fifth and sixth pieces of the aerospace series.

The Adventures In Aerospace Series

A total of six pieces are included in the Aerospace "Skills for Life Series." The first four activity guides, *Pre-Flight*, *Lift-Off*, *Reaching New Heights* and *Pilot in Command* have been designed to be developmentally appropriate for grades K-2, 3-5, 6-8 and 9-12 respectively but may be used by youth in any grade based on their project skills and expertise. The fifth piece *Flight Crew* has been designed to provide group activities that can be organized very quickly and conducted with a group of usually three to forty youth. The sixth piece is the *Aerospace Community Organizer's Guide*. This piece has been designed to help a volunteer or staff member organize a youth aerospace program in a community. Included are hints on financial support, organizing a sign-up night, providing recognition and much more.

Evaluating the Experience

Each activity can be evaluated based on the understanding the youth has about the aerospace content and the work life skill shared during the debriefing session. The completion of the Pre-Flight Achievement Program is the final evaluation. As the project helper your initials on the achievement program will indicate that the activity has been successfully completed.

Good luck in your role as aerospace project helper!





Pre-Flight Aerospace Achieve-

ment Program



Aerospace Activity Log

Date and list exciting things you do and learn in the aerospace project

Name _____
Helper's Name _____
My Aerospace Project Goals

YEAR _____

YEAR _____

YEAR _____

To Complete:

1. Do 4 required activities.
2. Do at least 2 of the Solo Flight activities
3. Do at least one of your own activities.
4. Share each activity with your helper and have your helper initial.

Required Activities

Complete the 4 activities....

5...4...3...2...1...
Date _____ Initial _____
Wonderful Wings
Date _____ Initial _____
What Do You Do?
Date _____ Initial _____
Spacey Suit
Date _____ Initial _____

Optional Activities

Select and do any of the Solo Flight activities in this guide.

Solo Flight Page _____ # _____
Date _____ Initial _____
Solo Flight Page _____ # _____
Date _____ Initial _____
Solo Flight Page _____ # _____
Date _____ Initial _____
Solo Flight Page _____ # _____
Date _____ Initial _____
My Own Activity Date _____ Initial _____
My Own Activity Date _____ Initial _____

Pre-Flight Completion Certificate

I certify that _____ has completed all requirements of the Pre-Flight Aerospace Achievement Program.

Aerospace Helper's Signature _____ Date _____

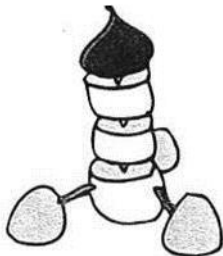
5..4..3..2..1..

Have you ever looked closely at a rocket? In this activity you will do just that! You will make a rocket using marshmallows, candy, and six or more toothpicks. And here's the best part: when you're done, you can eat your rocket!

Blast Off

Begin by finding a picture and some information about a real rocket and its parts in a magazine, newspaper or a book. Use the picture to help you make your own rocket.

- The marshmallows stand for the rocket stages or body tube.
- The gum drops are the fins.
- The candy cone is the nose cone in which people and sometimes animals ride.



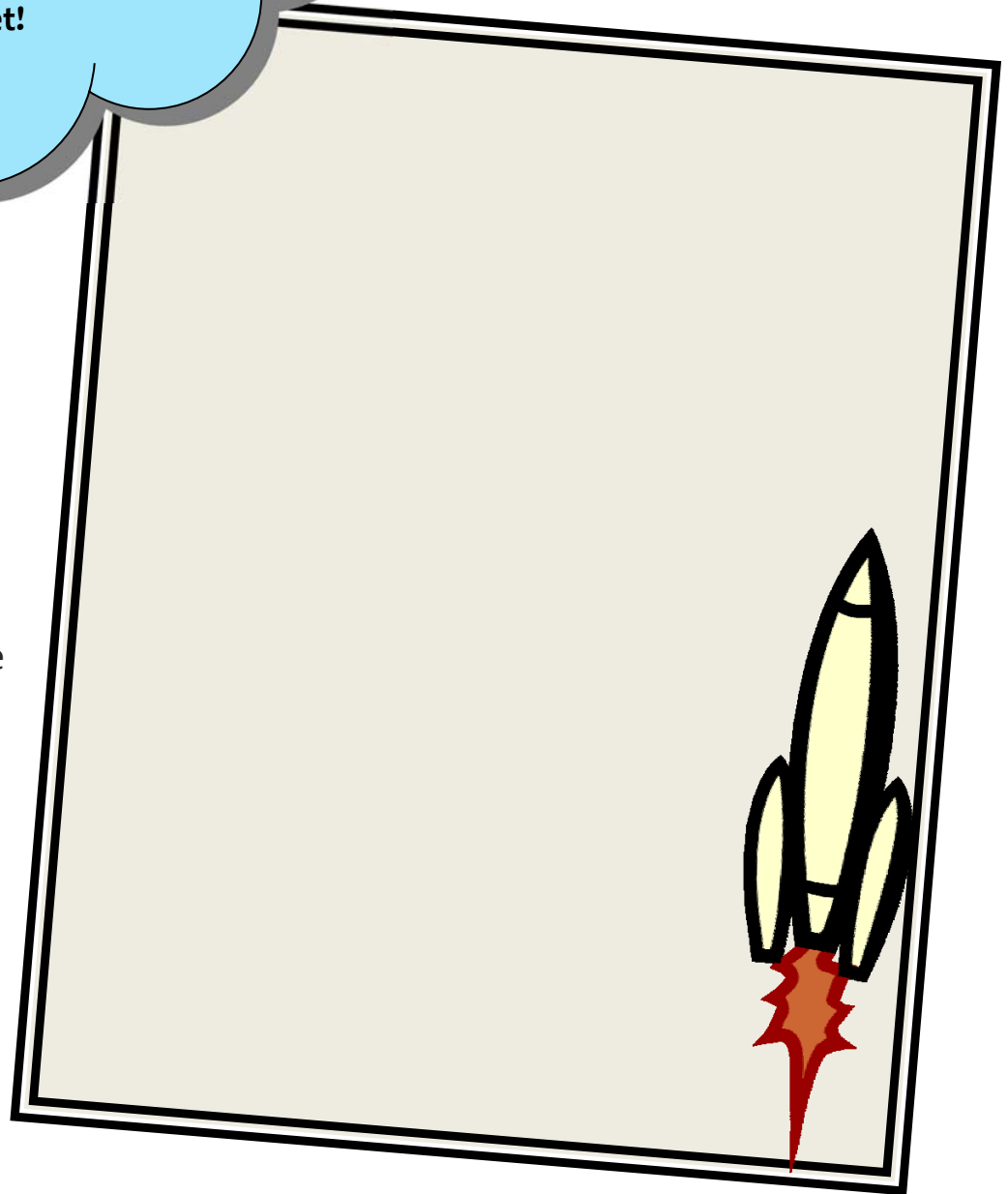
What To Do: Build a rocket that can be eaten

Work Life Skill: Recognizes patterns/relationships

Aerospace Skills: Building a rocket and identifying rocket parts

Science Skills: Building models, inferring

Materials: 3 large marshmallows, 3 gumdrops, 1 cone-shaped chocolate drop, 6-8



1. Draw and color a picture of your rocket.
2. Label the three main parts- fins, body tube and nose cone.

Debriefing

Ground to Ground (Share)

- Q. Tell a family member about your rocket and its parts. What is each part for?
- Q. How did you make your rocket?

Climb Out (Process)

- Q. How is your rocket like a real rocket?

Level Off (Generalize)

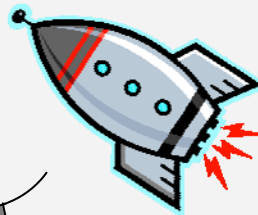
- Q. Where can you find more information about rockets?

Cross Country (Apply)

- Q. How can building or looking at a model of something help us learn more about the real thing?

Aerospace Facts

Space capsules have special heat shields to protect the cabin during its journey and as it comes back to Earth



Solo Flight

1. With your helper read a story about rockets or exploring space.

Date: _____ Initial: _____

2. Watch the next live shuttle launch on television or watch a video of a launch. Describe the launch to your helper.

Date: _____ Initial: _____

3. Make a model rocket.

Date: _____ Initial: _____

Resources

The Usborne Book of Space Facts is available from the 4-H Source Book as well as from many libraries and book stores.

Wonderful Wings



Hummingbirds, robins, eagles, gliders, jets, helicopters, and airplanes. What do all of these have in common? In this activity you will discover how birds and airplanes are alike.

What To Do: Compare birds and airplanes

Work Life Skill: Transfers information between formats

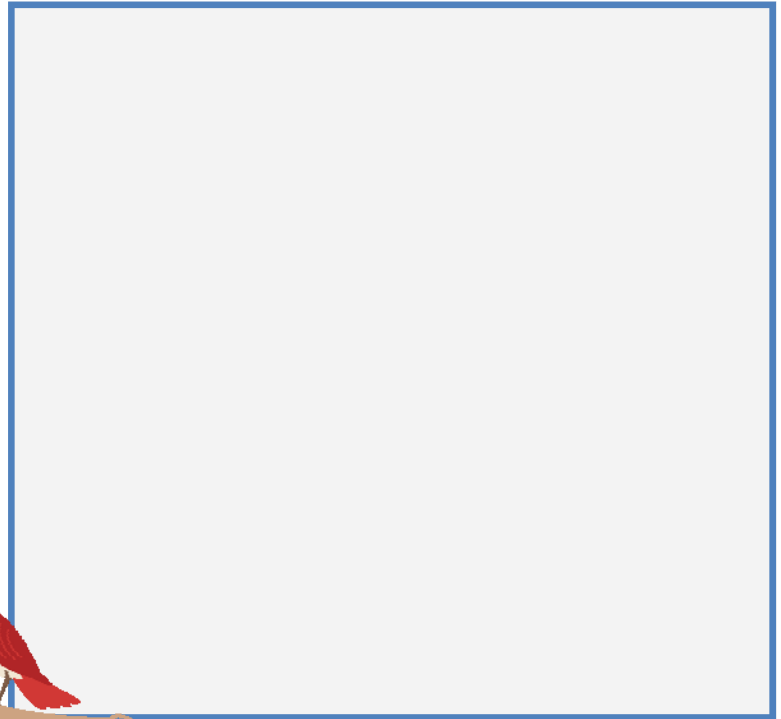
Aerospace Skills: Comparing birds to airplanes

Science Skills: Inferring

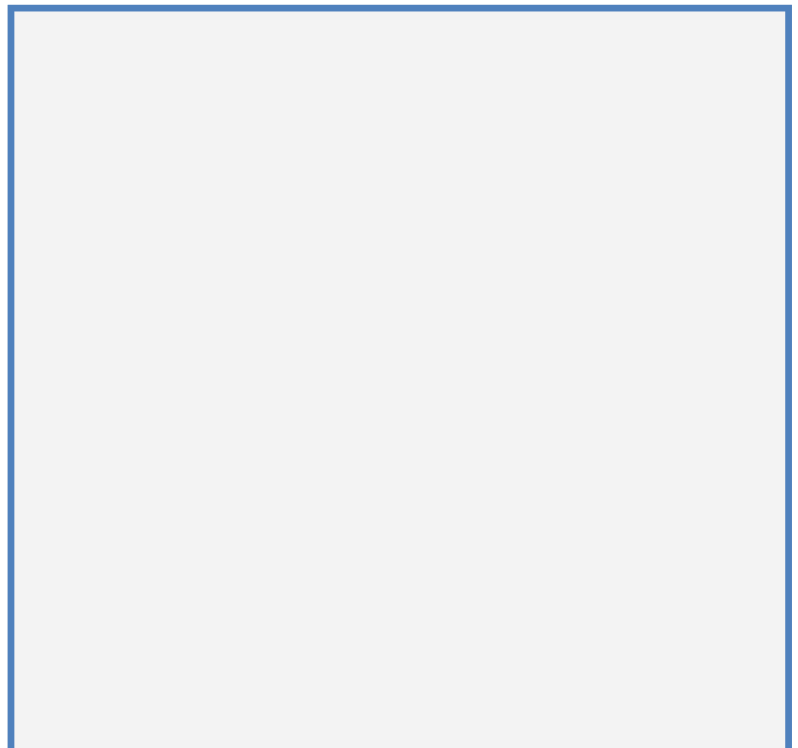
Materials: Bird and airplane pictures, crayons, scissors

Blast Off

1. Color the birds and the airplanes on pages 7 and 8.
2. Cut out the 14 picture boxes
3. Arrange the boxes in order with the birds facing up.
4. Staple the boxes together on the top left corner. Helper note: Be sure edges are trimmed evenly.
5. Flip through the pictures and watch the birds take-off, fly, and land.
6. Turn your booklet over, flip through the airplane pictures and watch an airplane take-off, fly, and land.
7. Then draw and color a picture of your favorite bird and airplane.



My Favorite Bird



My Favorite Airplane

How Birds and Aircraft Fly

Wings give lift

Inside parts give strength with light weight

Movable wing and tail surfaces help control and keep steady

Rotating propeller pulls airplane through the air

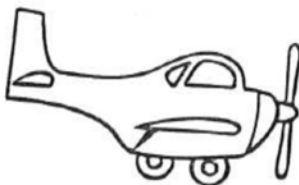
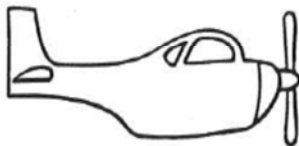
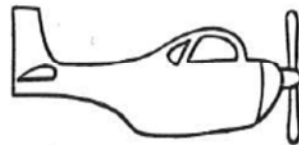
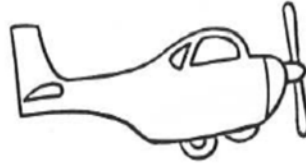
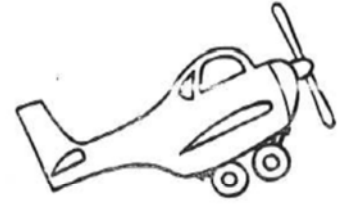
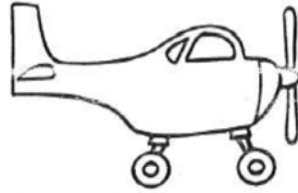
Landing gear may be pulled in to keep from slowing down



How Airplanes Fly

You can try this experiment to see how the wings of an airplane lift in moving air.

1. Hold one end of a paper close to your lips. Let the other end flop. Blow hard across the top.
1. The paper lifts because the air is moving faster over the top of it. This lowers the pressure or weight of air above the paper. Because the air underneath is greater, it lifts the paper.



Debriefing

Ground to Ground (Share)

- Q. What did you see when you flipped through the cards?
- Q. Share with your helper how the bird took off, flew and landed compared to the airplane.

Climb Out (Process)

- Q. How do the feet, tail, wing and light weight body of a bird compare to the parts of an airplane?

Level Off (Generalize)

- Q. How can comparing two things help you learn about them?

Cross Country (Apply)

- Q. How can comparing things help you do something else in your life, like:
 - a. decide which bike to buy?
 - b. choose a meal at a restaurant?
 - c. decide if you would rather have a dog or a cat for a pet?



Aerospace
Facts

Pilots must have licenses to fly, just like drivers have licenses to drive. When people pass the tests to get their pilot's licenses, we say they have earned their "wings."

- A special department of the government called the Federal Aviation Administration sets the rules for pilots. It also works hard to make sure flying is safe for everyone.

Solo Flight

1. Visit an aviary, zoo, or your backyard feeder and watch how different birds take-off, fly, and land.

Date _____ Initial _____

2. Take a discovery airplane flight through the Young Eagle's Program.

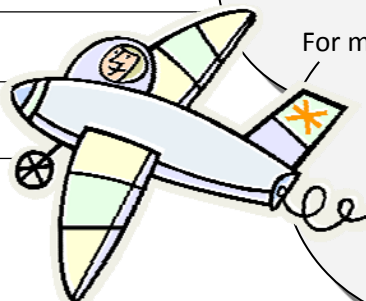
Ask your helper to contact :

Experimental Aircraft Association

PO Box 3086, Oshkosh WI 54903-3086

For more information call—920-426-4800

Date _____ Initial _____



What Do You Do?

People have many different jobs in aviation and space. Like being an astronaut, pilot, aircraft mechanic, meteorologist, flight attendant, air traffic controller, and ground support crew.

Each job requires special skills and tools, and a special workplace. In this activity you will work with a helper to match the people with their special workplaces.

What To Do: Match people with their jobs

Work Life Skill: Interprets and communicates information

Aerospace Skills: Identifying aerospace careers

Science Skills: Classifying

Materials: "Who Works Where?" activity sheet, pencil or crayon

Blast Off

1. With your helper, draw a line from the job to where the person might work.

2. Tell your helper what the worker is doing in each picture.

3. Draw a picture of you and the special workplace you might want to work in the box provided.



Aerospace Engineer



Flight Attendant



Ground Support Crew



Pilot



Ticket Agent



Aircraft Mechanic



Air Traffic Controller



Astronaut

Aerospace Facts

In 1944, Cornelius "Neil" V. Loving was injured in a glider accident and both of his legs were amputated. He worked very hard and continued to be a pilot with artificial legs. He went to college to learn more about airplanes and flying, and even designed an airplane of his own. You can see it at the Experimental Aircraft Association Museum in Oshkosh, Wisconsin. The "Loving Love" had folded wings and can be driven on the highway.

A picture of me where I want to work.

Debriefing

Ground to Ground (Share)

Q. Tell your helper what each person is doing.

Q. What new jobs did you see?

Climb Out (Process)

Q. What did you learn about aerospace jobs by doing this activity?

Level Off (Generalize)

Q. How can you find more about a job you like?

Cross Country (Apply)

Q. Tell your helper about a job you would like to do when you are older.

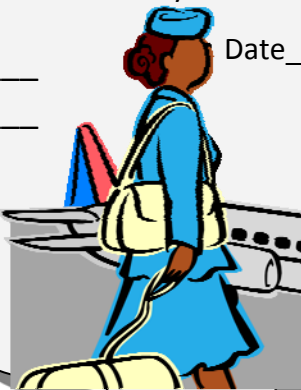
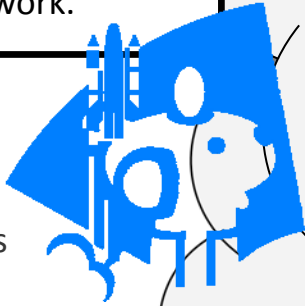
Solo Flight

1. Visit the library with your helper and read about the Wright Brothers, Charles Lindbergh, Mary Ross, Amelia Earhart, Jeanna Yeager or any other aerospace hero/heroine.

Date _____ Initial _____

2. Visit your local airport. Tell your helper who works there and what they do.

Date _____ Initial _____



Spacey Suit

Your space ship has just landed on the planet Nad. What kind of clothes do you need to leave the spaceship and discover what's out there? Let's get ready for a space walk by making a space helmet and wearing gloves.

Blast Off

1. With your helper, cut the gallon milk jug into a helmet shape and smooth and tape the edges



2. Decorate with paints, markers, crayons, pipe cleaners, pop can tabs, straws, paper, fabric, or whatever you choose. You can use colored acetate or cellophane for the eye shield

3. Next, try the tasks in the chart to the right. Give yourself a star for each task you can do.

4. Then, put on the pair of adult gloves. These gloves are like the stiff, bulky gloves astronauts wear while on space walks. Wearing your space helmet and gloves, try to do the tasks again. Give yourself a star if you can finish the tasks while wearing your space helmet and gloves... Or if you gave it your best try.



What To Do: Make a space helmet and practice using space-suit-type gloves

Work Life Skill: Demonstrates creative thinking and problem solving

Aerospace Skills: Making a space helmet and using space-suit-type gloves

Science Skills: Building models, experimenting

Materials: Gallon plastic milk jug, orange juice bottle or paper bag, scissors, glue, crayons, miscellaneous decoration items, pencil, paper, hairbrush or comb, adult-size ski, welding or heavy rubber work gloves

Star Gazing

Activity	Without Gloves	Wearing Space Gloves
Write your name		
Fold a paper airplane		
Touch your nose with one finger tip		
Brush/comb your hair		
Tie your shoes		
Turn a door knob		

Debriefing

Ground to Ground (Share)

- Q. Share with your helper how you made your helmet.
- Q. How did you feel when you tried the tasks while wearing the space-suit-type gloves and helmet?

Climb Out (Process)

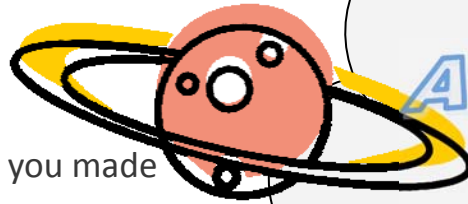
- Q. Why do astronauts need special clothing?

Level Off (Generalize)

- Q. When might you or someone you know wear special clothing for a certain job or event? Why is it needed?

Cross Country (Apply)

- Q. If you were going to visit the planet Nad, what special equipment and supplies would you take with you?



Aerospace Facts

- The word astronaut means “sailor among the stars.”
- The purpose of the space suit is to give the astronaut air to breathe and to keep air pressure and temperature steady. Space suits have about 15 layers of material. A space bubble helmet weighs about 40 pounds. That’s almost as much as many kindergarteners weigh!

Solo Flight

1. Draw a picture of how you think the planet Nad looks. Share with a family member what a day in your life on planet Nad might be like.

Date _____ Initial _____

2. With your helper, write to NASA for a color space suit poster.

Request Space Suit

WED-109

NASA Education Publications

Code FEP

Washington DC 20546

Date _____ Initial _____



Hangar Talk



This is the first of four Hangar Talk glossaries for you to use to increase your aviation and space vocabulary.

Aerospace engineer -

a person who designs airplanes and space ships using computers.

Aircraft mechanic - a person who repairs and helps keep in good condition aircraft engines, power plants, and electrical wiring systems.

Air traffic controller -

A person who helps provide safety to aircraft in the air and on the ground.

Airfoil - The shape of a wing that helps make it possible for the aircraft to fly.

Airplane -A machine with wings, heavier than air that is driven by an engine or jet.

Airport - place where aircraft can take off and land; usually equipped with a control tower, hangars, and places for passengers and cargo.

Astronaut - a person who operates a space vehicle, conducts experiments, and gathers information during a space flight.

Amphibian airplane - an airplane that can land on both land and water.

Aviation - related to aircraft.

Aviary - A place where birds are kept.

Balloon - A bag filled with a gas that is lighter than air, moved by the wind.

Beacon -A light or other signal showing direction.

Biplane - An airplane with two sets of wings, one wing above the other.

Capsule - a small, sealed pressurized cabin that a human or animal can live in while in space.

Commander - the crew member who is the leader of the flight and crew.

Crosswind - wind that blows across the path of a kite, aircraft, or other object.

Dirigible - a long cigar-shaped bag filled with a gas that is lighter-than-air, powered by an engine and is steerable.

Engine - the part of the aircraft that provides power to move the aircraft

through the air.

Fins - Act like feathers on an arrow to guide the rocket in flight.

Flight attendant -A person who helps passengers and crew.

Flight deck - The part of the spacecraft where the commander and pilot fly the shuttle.

Four forces of flight - forces acting on object during flight:

1. **Lift** - upward force created by airflow as it passes over a wing.
2. **Weight/Gravity** - causes an object to be pulled downward.
3. **Thrust** - force that moves an object through the air.
4. **Drag** - limits the speed of an object; opposite of thrust.

Fuel - the gasoline or kerosene used to run engines.

Galley - the area on the shuttles middeck where food is prepared.

Glider - an airplane without an engine.

Ground Support Crew - a person or group of people, who helps with the aircraft, crew, and passenger.

Hangar - a large building at the airport where airplanes are stored and repaired.

Hang Glider - A glider where the pilot hangs underneath the wing.

Headset - Headphones that fit over the pilot's ears to help him or her hear better.

Helicopter - an aircraft that flies by using a rotating wing.

Jet Aircraft - an aircraft that travels very fast and is powered by a jet engine.

Jet Engine - an engine that turns air and fuel into a hot gas that shoots out the back of an engine and pushes the airplane through the air.

Launch - to take off

Lighter-than-air - aircraft that is lifted into the air by a gas that weighs less than air.

Meteorologist - a person who studies the weather forecasts changes and gives weather reports

Monoplane - an airplane with one set of wings.

Multi-Engine Aircraft - an aircraft with more than one engine.

Orbiter - the Space Shuttle.

Parachute - Fabric attached to objects or persons to give a slowed trip to Earth.

Pilot - a person who operates aircraft or is the assistant commander of aircraft or space flight.

Propeller - two or more twisted blades that pull an airplane forward as they turn. Blades have the same shape as a wing.

Ramp - an area at the airport where aircraft are parked to be serviced or to load/unload passengers and cargo.

Rocket Stages - two or more rockets stacked on top of each other in order to go up higher in the air, or to carry more weight.

Runway - a long, straight road for aircraft to take off and land on.

Seaplane - an airplane that takes off or lands on water.

Space - air, atmosphere, sky, universe.

Spacelab - the space shuttle's flying laboratory.

Star - a burning ball of gases.

Tail - the rear part of the airplane.

Takeoff - the beginning of the flight, when the airplane gains speed and leaves the ground.

Taxi - to move an aircraft on the ground.

Taxiway - the roads used by aircraft when they move on the ground.

Temperature - the degree of hot and cold.

Terminal - a building on the airport where aircraft arrive and depart, people board, buy tickets, and have luggage handled.

Weather - the condition of the atmosphere at a given time: air motion, moisture, temperature, air pressure.

Windsock - a cone shaped, open-ended cloth that catches the wind and shows wind direction.

Wing - the part of a bird, animal, or machine shaped in a way that gives life when air flows over it.

Prop Shop (Aerospace Resources)

National Associations

National Association of State Aviation Officials

Metro Plaza One
8401 Colesville Road, Suite 505
Silver Springs, MD 20910
301-588-1286

Aviation education information each state including career information.

National Coalition for Aviation Education

(NCAE)
PO Box 28086
Washington, DC 20038
<http://www2.db.erau.edu>

Excellent directory representing the aerospace industry and labor

University Aviation Association (UAA)

3410 Skyway Drive
Auburn, AL 36830
334-844-2434
<http://www.unomana.edu/~himbergr/vaa.html>
The Collegiate Aviation Directory

Your local Cooperative Extension Office

Aerospace Educational Organizations

Academy of Model Aeronautics

5151 East Memorial Drive
Muncie, IN 47302-9252
Model aviation information, teacher resources

American Kite Fliers Association
352 Hungerford Dr.
Rockville, Maryland 20850-4117
800-AKA-2550
E-mail: aka@aka.kite.org

Local Kite Organizations

Aviation Exploring Division - Boy Scouts of America

1325 Walnut Hill Lane
Irving, TX 75038-3096
214-580-2427
Explorer program information

Cessna Aircraft Company

Air Age Education Division
PO Box 7704
Wichita, KS 67277-7704
Teacher resources, Air Age Educational Packet

Challenger Center for Space Science Education

1029 N. Royal St., Suite 300
Alexandria, VA 22314
703-683-9740
<http://www.challenger.org>
Teacher resources, information, aerospace education materials

Civil Air Patrol

105 S. Hansell St.
Maxwell AFB AL 36112-6332
1-800-633-8768
<http://www.eaa.org/youngeagles/cap.html>
Teacher resources, information, aerospace education materials

Kansas Cosmosphere

1100 N. Plum
Hutchinson, KS 67501
1-800-397-0330
Aerospace summer camps, aerospace family museum

Raytheon Aircraft

Aviation Education Dept. 97
10511 East Central
Wichita, KS 67206
<http://www.raytheon.com/rac/>
Aviation education materials for all ages

4-H Aerospace Education

211 Duncan Hall
Auburn University
AL 36849-5620
334-844-2233
<http://www.acesaq.auburn.edu/department/fourh/aero/>
Skylights, periodical for the aerospace educator

US Space Camp, Space Academy and Aviation Challenge US Space & Rocket Center

One Tranquility Base
Huntsville, AL 36807
1-800-63-Space or 205-837-3400

Aerospace Materials in National 4-H Collection

Aerospace Work Skills for Life Series

Distribution Center
20 Coffey Hall
University of Minnesota
St. Paul, MN 55108-6069
See inside back cover for ordering information.

Space Station Indiana: A Resource Book for Hands-on Science & Math Activities

Purdue University
1161 AGAD Room 224
West Lafayette, IN 47907-1161

Aerospace Products and Catalogs

4-H Source Book

7100 Connecticut Avenue
Chevy Chase, MD 20815-4999
301-961-2959
Fax: 301-961-2787
Catalogue of 4-H and aerospace products including this aerospace curriculum series

For additional resources not available through the 4-H Source Book see the following:

PITSCO

1002 E. Adams
PO Box 1328
Pittsburg, KS 66762
1-800-835-0686
Catalogue of aerospace supplies, products, software, CD-ROMS, poster books, videos, and more

ESTES Industries

PO Box 227
1295 H Street
Penrose, CO 81240
1-800-820-0202
Teacher Resources; rockets/glider supplies, education materials

Jeppesen Sanderson

55 Inverness Dr. East
Englewood, CO 80112-5498
303-799-9090
Aviation Fundamentals texts, aviation education materials

Midwest Products Co., Inc.

400 S Indiana St
PO Box 564
Hobart, IN 46342
1-800-348-3497
Catalogue of aerospace products, supplies, posters, books, videos

NASCO

901 Janesville Ave.
PO Box 901
Fort Atkinson, WI 53538-0901
1-800-558-9595
Catalogue of aerospace supplies, products, posters, books, videos

Newton's Apple/KTCA/PBS

PO Box MM
172 4th Street E
St. Paul, MN 55101-9851
1-800-328-5540
<http://www.mnonline.org/ktc/newtons>
Videotapes of selected programs, CD-ROM series "What's the Secret?," science kits

Quest Aerospace-A Div. of Toy Biz, Inc.

350 East 18th Street
Yuma, Arizona 85364
1-800-858-7301
Teacher/Youth Leader resources; model rockets, kites, supplies, education materials.

A portion of the sales price of the products or services in the sales catalogs of these aerospace product suppliers will be used to promote 4-H educational programs. No endorsements, of these products or services is implied or intended.

Exploring Aerospace on the Web

Aviation

Aviation Web/Student Pilots:
<http://www.aviationweb.com/>

Fleeting Glimpse:

<http://www.vivanet.com/~stevemd/home.html>

EAA Youth & Education Programs:

<http://www.eaa.org/youngeagles/yeinfo.html>

FAA Aviation Career Series

<http://www.tc.faa.gov/ZDV/gcdb.html>

National Air and Space Museum:

<http://www.nasm.edu>

Virtual Library Embry-Riddle Aeronautical University:

http://macwww.db.erau.edu/www_virtual_lib/aviation.html

Women in Aviation:

<http://www.tc.faa.gov/ZDV/wia.html>
GA Team 2000: www.beapilot.com

Rockets

Paul Grary's Model Rocketry : (Beginners):
<http://www.dimensional.com/~pmgray>

Irving Family: Model & High Power Rocketry:

<http://www.irving.org/rocketry/>

Space

NASA—Home Page
<http://www.hq.nasa.gov/office/code/education>

Kites

<http://www.latrobe.edu.au/Glenn/KiteSite/Kites.html>

Helicopters

<http://www.rotor.com>

Hot Air Balloons

<http://www.apci.net/~wag>

Weather

<http://www.crhnhwscr.noaa.gov/mpx/mpx.html>

