



PAWS
UNIVERSITY
- HOME EDITION -



Taking Flight

After a week of extensive Olympics training, Louie decides he needs to take some time to relax outside. He uses his senses to take in his surroundings. He sees a bird land by his feet. He feels the wind blowing in his fur. He hears a plane zooming overhead. All of these things get Louie wondering: What would it be like to fly?

VIRTUAL ENHANCEMENT ACTIVITIES SCHEDULE

Monday	Taking Flight Workout led by UNK Track and Field Team iVeo, Veo! with Dr. Michelle Warren AV-8B Harrier plane flown by Major Kimmims (UNK graduate)
Tuesday	Airplane Washing & UNK Aviation Students Mixed Media Art Lesson with Professor Ziemke and guest 10:00 Kearney Flight Demo (weather permitting) *See flight schedule posted on Facebook.
Wednesday	Hangar and Planes Tour with Captain Poulson Book Read Alouds with Drs. Maughan and Hartman 10:00 Kearney Flight Demo (alternate date)
Thursday	Planetarium and Book Read Aloud with Dr. Berrier Taking Flight with Dance 10:00 Kearney Flight Demo (alternate date)
Friday	Interview with Major Kimmims, Fighter Pilot for United States Marine Corps Book Read Aloud with Dean Teten

****Submit interview questions for Major Kimmims (fighter pilot) by Wednesday.****

unk.edu/pawsuniversity

Reminder: Save some of your masking tape to use next week!

Special Thanks: UNK Aviation, Dance, Art & Design, and Modern Language Departments; Major Brian Kimmims and US Marine Corps; UNK Track and Field Team



Captain Louie is ready for take off! Be sure to include Louie in all of your flight adventures this week. Then share pictures on our **PAWS University Facebook** page!



* Kit may contain small objects. Additional themed activities are available online at www.unk.edu/pawsuniversity, including: virtual enhancement videos, live experiments/interviews, virtual tours, "celebrity" readers, workouts, and more! We encourage you to post photos to our PAWS University Facebook group throughout the week.



STEM: Rubber Band Helicopter

Adult assistance may be required.

As Louie was watching the clouds roll by, he was startled by a loud, noisy object whirling through the sky. Then he realized it was a speedy helicopter that can get from one end of Kearney to the other in just two minutes! Helicopters can fly very fast! But how does a helicopter fly with only two blades? When the rotors spin quickly, it creates a difference in air pressure. The air below the blades is slow moving and has high pressure. The air above the blades moves faster and has a low air pressure. The high air pressure underneath pushes the blades up into the low pressure, causing vertical flight.

Create your own helicopter to help Louie better understand the mechanics of helicopter flight. Follow the directions below or watch a helpful video at <https://youtu.be/DiJlvoHvGk4>. (The video is also available on our website: unk.edu/pawsuniversity)

1. Gather the following supplies from your kit: propeller, 2 rubber bands, popsicle stick, large paper clip, and blue cardstock paper. You will also need to use some masking tape from last week's kit. *Don't use all of your tape! You will need some for an activity next week!

2. Use the cardstock paper to draw and cut out the body of your helicopter. Part of your task is to experiment with different body shapes and sizes. Think of the shape of a helicopter. What makes the helicopter fly the best? Try one version. Test it. Make changes. Test your new version. You probably will not get the "perfect" body shape the first time, so keep experimenting.

3. Connect the popsicle stick to the plastic bottom of the propeller.

4. Place the paper clip flat on your work space. Lift the middle of the paper clip, bend it upwards, until it is almost standing straight up.
5. Use your thumb to hold the larger, outside part of the paperclip on the bottom of the popsicle stick and tape it on.
6. Tape the helicopter body closer to the top of the popsicle stick so the body and paperclip are on the same side of the stick.
7. Connect one rubber band to the metal eye hook on the bottom of the propeller and then to the small end of the paper clip. Connect the second rubber band in the same way.
8. Go outside. Like any helicopter, your creation needs room to fly!
9. Hold the popsicle stick in one hand and spin the top of the propeller clockwise with your other hand. Wind it up several times until the rubber band starts to "double coil."
10. Face the propeller up and away from your face. Then take your hand off the propeller FIRST and the popsicle immediately after. May help to say "Tick-tock." Let go of the propeller when you say "Tick" and popsicle stick when you say "Tock."

Watch your helicopter fly! Did it fly high? Did it fly straight? Can you make it fly higher and straighter? Experiment with the cardstock to create different sizes and shapes of helicopter bodies.

Additional activities available at unk.edu/pawsuniversity: Plane Tracking, Origami Planes, and more!

READING: Soarin' to New Heights

Thinking about flight has made Louie realize just how many different things fly! From tiny insects that fly close to the ground to enormous rocket ships that fly in space. This week, see if you can make your reading, soar, float, zoom, and shoot through the sky.

 **Rocket** For an "out of this world" story, listen to astronauts reading books from space by going to Story Time from Space <https://storytimefromspace.com>.

 **Airplane** Write a flight story on a piece of paper. Then fold it into an airplane and fly it outside.

 **Hot Air Balloon** Use sidewalk chalk to draw a hot air balloon among the clouds. Read a book while sitting in the basket.

 **Bird** Stand in front of a fan and feel the wind in your "feathers" as you read.

 **Insects** Sit in the grass with a good book and see if any flying insects join you to read.

ARTS: Mixed Media Hot Air Balloons

Floating or flying? Louie ponders this as he gazes up at a group of hot air balloons in the sky. Rather than using air pressure to fly, hot air balloons change the density of the air. By heating up the air inside the balloon, the air becomes less dense than the air surrounding the balloon and causes the balloon to rise. Yet, that is not what Louie found most interesting. Every balloon was different! Unique. Each beautiful in their own way.

Use a collage, or mixed media technique, to create your own unique hot air balloon. See our [mixed-media instructional video](#) on our website!

Collage- a piece of art made by sticking various different materials such as photographs and pieces of paper or fabric onto a backing.

Mixed Media- art form that combines a variety of media in a single artwork

Numerous mixed media art supplies, like fabric, ribbons, buttons, and more, are included in your kit. Use these, along with some items from previous weeks and any items you may have at home, to create your own mixed media hot air balloon. Be sure to share your artwork on our Facebook page so others can enjoy your creations.

As you plan for your artistic creation, ask yourself:

- What other materials from home could I use?
- How will I decorate my hot air balloon?
- Should I organize the mixed material by materials, by color, or maybe by texture?
- Should my collage create a pattern (anything repeated) or will materials be placed at random?
- Will my art be abstract or should I create a picture?

Items in Kit

Hot Air Balloon Template
Glue
Kit paper bag
Surprise mixed media items

Items from Previous Kits

Crayons
Yarn
Inkpad
Masking tape
Pipe Cleaners

Items You May Have at Home

Markers
Paint
Scraps from other projects
Gems
Newspapers/magazines
Recyclables

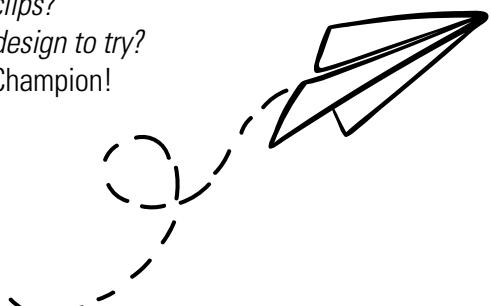
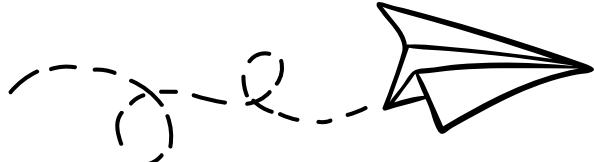
Additional activities available at unk.edu/pawsuniversity: Design a Parachute, Bird Kite, and more!



FAMILY ACTIVITY: Paper Airplane Competition

As you learned through this week's activities, flight comes in all shapes and sizes. From tiny insects to airy balloons to enormous metal rockets. Now, it is time to put your new knowledge to the test in a Family Paper Airplane Competition! Several different types of paper are in your kit, including: printer paper, small square notes, oversized paper, and thicker paper. Your goal is to create a plane that will fly the farthest.

1. Decide if you want to compete for farthest flight, straightest flight, or plane that stayed in the air the longest.
2. Carefully choose your plane size, paper type, weight, and design.
 - Paper size: *Which size will fly the farthest?*
 - Paper type: *Which type of paper will make the best plane?*
 - Weight: *Does adding a small paper clip help? What if you add 2 or 3 paper clips?*
 - Airplane Design: *Which design will work the best? Do you have a different design to try?*
3. Compete against your family members to see who is the PAWS University Flight Champion!



HUMANITIES: First Americans in Space

As Louie was laying on the ground, he saw the moon peeking at him from the sky. He wondered if anyone had ever flown that high in the sky-- high enough to be out of the atmosphere!

Alan Shepard - First Male American in Space (May 5, 1961)



- Alan became an astronaut in 1959 after being a test pilot. He was one of the first 7 astronauts in NASA's program.
- His first flight in space lasted 15.5 minutes. He went up 116 miles and returned to Earth.
- Alan's second flight in space was aboard Apollo 14, when he and his crew landed on the moon! It was during this space flight that Alan became the first man to play golf on the moon.

Sally Ride - First Female American in Space (June 18, 1983)



- Sally answered NASA's newspaper ad in 1977 asking for women interested in becoming an astronaut. She was in college studying physics at the time.
- She was 1 of only 6 females who were selected for the NASA program.
- Sally traveled in a rocket to space for the first time in 1983 and again in 1984.
- The rocketship that Sally went to space in had room for 5 people. Each person was part of the team, and they would not have made it to space without each other.
- The team of 5 had one commander (the boss), one pilot (drove the ship), and three mission specialists (working together to complete the mission). They also had hundreds of others on their team on Earth who were working to keep them safe.

Although Alan Shepard and Sally Ride are an important part of American history, they did not get to space on their own. NASA operations involve a large number of people doing a variety of important jobs. Each person plays an important role.

Adult assistance may be required.

Gather your own team to build and launch a homemade rocket. It is important that you have an adult on your operations team and that your outdoor launchpad is a hard, flat surface.



1. Gather your rocket supplies. You will need: film canister, alka-seltzer tablet, water, and your rocket ship cutout. Put on safety glasses if you have them, but regular glasses or sunglasses will work too!
2. Color your rocket ship. Tape it around the film canister.
3. Fill the film canister about one third of the way with water.
4. Have an adult help you break the alka-seltzer tablet into fourths.
5. Drop one fourth of a tablet into the water and QUICKLY attach the lid TIGHTLY. Having the lid on tightly is crucial to your blast-off working!
6. Give the canister a little shake and set it down with the lid on the ground. Move back 10 steps away from your rocket.
7. Wait for it! 3...2...1... BLAST OFF!! Watch your canister explode from the ground and into the sky! Repeat it several times. What happens when you change the temperature of the water? What happens if you shake it more or less?

Additional activities available at unk.edu/pawsuniversity: Virtual Tour of Mars, Galaxy Slime, and more!

SNACK

Pretzel Butterflies

Courtesy of Kearney HyVee

Ingredients

1 celery stalk

Cream cheese or peanut butter

Raisins, crasins or chocolate chips

Pretzel twists



Directions

Wash your hands

Break celery stalk into 2-3 inch pieces

Spread about 1 Tbsp peanut butter or cream cheese down the middle of the celery

Place 3-4 raisins, Crasins or chocolate chips on top of peanut butter or cream cheese.

Place 1 pretzel twist on each side of the celery to resemble butterfly wings. Break apart another pretzel to create antennas.