



WIND PAINTING AND GLIDER GAMES

Grades K-3: Plan 3

EXPERIMENT WITH A GLIDER

WELCOME

(5 min)

SPORTS / GAMES

(30 min)

Materials:

- Ball
- Tape (optional)



VIDEO / DISCUSSION

(20 min)

Welcome your students to camp. Be friendly.

FLIGHT PATH BASKETBALL

Say: The Wright Brothers didn't get their airplane to fly on the first try. They had to test, adjust, and try again—just like we will in today's game. You'll need to think about the angle, force, and direction of your shot, just like they had to figure out their best flight path!

Objective: Students try to shoot a basketball from various marked locations to follow a trajectory.

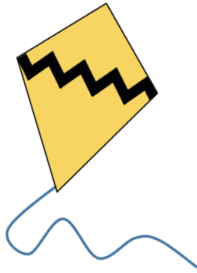
1. **Set Up:** Play on a basketball court.* Choose 4–5 key shooting spots (e.g., free-throw line, corners, sideline etc.). These represent different points along a flight path. You can mark them with tape or anything else available.
2. **Takeoff:** The first player starts at the first spot and must make a shot before moving to the next.
3. **Glide or Crash:** If they make the shot, they "glide" to the next point. If they miss, they "crash" and go back to the previous one.
4. **Landing:** The first player to complete all flight path shots wins!
5. To continue play, students can collectively choose a newer/more challenging flight path.

*Note: *You can mark different areas on the ground if a court is unavailable, or two teachers/students who have had their turn can interlink their arms to make a hoop or hold up a hula hoop as well.*

PREDICT WHAT FLIES ON A WINDY DAY

Watch how Curious George tests out how things will fly in the wind. Before playing the video, ask students to vote, with a show of hands, about which things they think will fly on a very windy day (a leaf, a big yellow hat, ping pong balls, drawings, socks, a brick, a kite, leaves, packing peanuts, a squirrel, and a monkey).



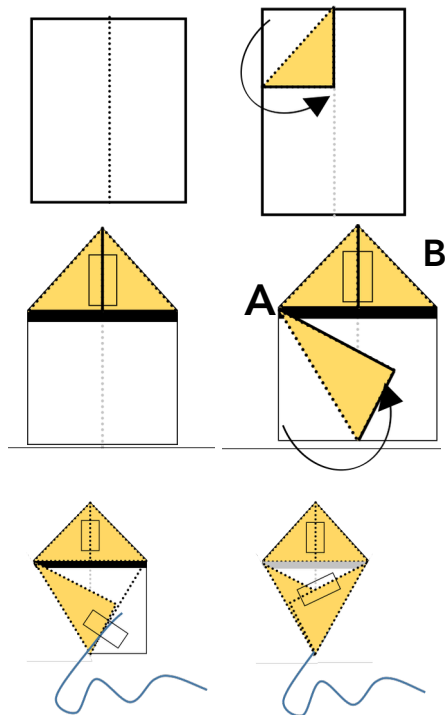


EASY ORIGAMI

(30 min)

Materials:

- Paper (computer
- paper cut into 4
- equal rectangles)
- String (optional)
- Tape
- Coloring utensils



Say: Curious George is ready to find out what a clever little monkey can fly on a windy day. Let's join him and see how his windy day flight experiments turn out!

Windy Day | Curious George | Mini Moments

<https://www.youtube.com/watch?v=cPTfm2uYtIs>

MAKE AN ORIGAMI KITE BOOKMARK

Just like the colorful kite George helped get down, we can make a bright, colorful origami kite bookmark of your own!

Teacher prep:

Prepare string by cutting it into 10–12 inch lengths to use as kite tails.

What you'll do:

1. Give each student a piece of paper. Ask students to fold the paper in half lengthwise.
2. Next, they will open the paper and fold the top-left hand corner down to meet the center crease forming a triangle. Repeat on the right side.
3. Students make a new fold on the left side from the newly created corner (point "A" on the diagram) to the bottom of the center crease. Repeat for the right side.
4. Students can make a tail for their kite with a piece of string. Open the bottom-right flap and lay their string in the crease.
5. Help students secure the tail with tape. Fold the bottom right flap over to secure the tail in place.
6. Students can now flip their kite over and decorate it!



READER'S THEATER

(30-40 min)

Materials:

- Print one copy of "Day 3: Onwards and Upwards!"
- Three pairs of scissors
- One roll of tape

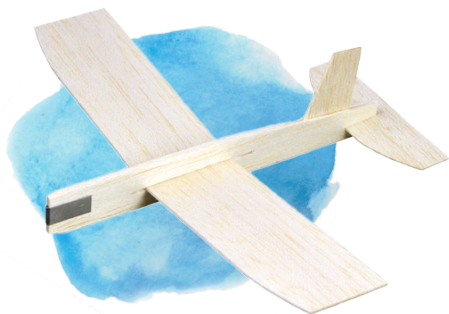


STEM PLAY

(30 min)

Materials:

- Balsa wood gliders (one per group of 3 or 4 students)



Read Wright Brothers Day 3: Onwards and Upwards!

Read Day 3 (the last day) of The Wright Brothers with your students. Talk about the story and let student volunteers listen to act out their part.

Prepare beforehand: Print out one copy of "Day 3: Onwards and Upwards!" from the story. Gather scissors and tape.

What you'll do:

1. **Setup storytelling props (10 min):** Call up volunteers to help with the reader's theater. Ask students to cut out the story props found in the story document. You can use a round of tape (like we do to tape gift wrapping paper) to stick the hats on to students' heads.
2. Assign a volunteer actor to handle each prop for story time.
3. Read the story to your students. Guide your volunteer prop holders in following the acting instructions written in red and behind the props as you read.
4. Discuss the story with your students following the discussion question prompts printed underneath the story text.

PLAY GLIDER GAMES

Objective: Students use their gliders to complete the flight challenges. Introduce the challenges one at a time. Encourage students to practice their challenges in small groups and then and compete together as a class.

1. **Trick Flight Contest (10 min):** The goal is to perform aerial tricks and maneuvers with their glider. Can they make it fly in a loop? Can they complete two loops? Can they make it climb, then dive? Can they make their glider fly in a corkscrew pattern. Ask your students to not permanently alter or damage their gliders by folding, bending or creasing the wood.
2. **Formation Flying (10 min):** Try launching 2 or more gliders at the same time to fly in formation. Can you get them to fly the same way and do the same loops and flight patterns? Each group of students can perform their air show for the class.
3. **Takeoff & Landing Strip Challenge (10 min):** Launch from a starting point and try to land your glider on a "runway" marked with masking tape or a few pieces of paper. Try to hit the target. Once you succeed, move farther back and challenge yourself to make a longer flight to the runway!



STEM ART

(30 min)

Materials:

- Watercolors
- Paintbrushes
- Straws (from spin toys)
- Paper plate



ENGINEERING

(30 - 40 min)

Materials:

- Rod propellor spin toys (from Day 1)
- String
- Sticks or rulers
- Found materials



EXPERIMENT WITH WIND PAINTING

Say: "Today, you'll blow through a straw to create art! With a puff of air you can make fun splotches. Make a sky for an airplane to fly in! You will make the sky today and an airplane another day."

Play this video **in the background** as students create:

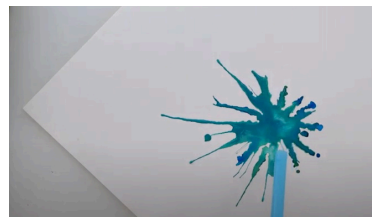
<https://www.youtube.com/watch?v=8he5L-ZWBSI>

What you'll do:

1. Students use a paintbrush to drop dots or dabs of watercolor paint on to their paper plate or piece of paper.



2. Students blow through a straw at the paint. Experiment to move it across the paper and create unique shapes and splatters.



4. Try different blowing techniques. Move your straw in different directions to see how the paint moves. Students can try blowing circles and swirls. Try blowing on your paint from above. Try blowing from the side.

GIVE YOUR PROPELLOR A TAIL FOR CARGO

Say: Helicopters can carry big things using a strong rope or cable hanging underneath them. People use this when they need to move heavy stuff—like boxes, tools, food and supplies to places where trucks can't go, like on top of a mountain or into the forest. You can carry a cargo with your propeller toy.

1. Help students tie or tape one end of a string to the bottom of their propeller.

2. Students think like engineers and get creative with what they can attach to the string.

3. Students launch their propeller and observe how it flies with the string and its cargo. They notice how the shape of the string changes, and how fast or slow the propeller flies, or if it spins differently.

4. As the propeller floats down, other students use a stick or ruler to try catching the string mid-air.



FLIGHT PATH BASKETBALL

VIDEO/DISCUSS

ORIGAMI KITE



READER'S THEATER

GLIDER GAMES

STEM ART

ENGINEERING



METRIC

Physical Development Foundation 1.7 Gross Motor Manipulative Skills

Show increased ability to perform gross motor manipulative skills that involve using arms, hands, and feet with increased coordination to interact with objects.

Science Foundation 1.5 Making Predictions

Make simple predictions, give simple reasons for their predictions, and, with adult support, check the predictions through concrete experiences.

Physical Development Foundation 1.8 Fine Motor Manipulative Skills

Demonstrate increased fine motor manipulation skills using hands and fingers with increasing competence and precision to interact with objects needed for daily life.

Performing Arts Foundation 3.8 Using Props or Costumes

Add props or costumes to enhance the dramatization of familiar stories and fantasy play by themselves or with others.

Foundation 3.4 Acting Out Prompts or Scripts

Participate in acting out prompts or simple scripts by themselves or with others (such as by following instructions or taking turns).

Physical Development Foundation 1.7 Gross Motor Manipulative Skills & Foundation 2.4 Directional Movement

- Show increased ability to perform gross motor manipulative skills that involve using arms, hands, and feet with increased coordination to interact with objects.

Visual Arts Foundation 1.5 Using Visual Arts Materials

Use a range of materials more intentionally to create two-dimensional art (such as drawings or paintings) that is more detailed.

Science Foundation 5.1 Engineering Design Process

Foundation 1.8 Documenting Observations and Using Models

- Engage collaboratively with peers and adults in engineering design by identifying problems in play and everyday activities, planning and creating more detailed solutions to the problems they identify, and testing and refining their solutions with less adult support and over longer periods of time.
- Record observations or findings with adult support and use simple representations, including drawings, models, movement, role-play, and other methods, to convey their observations and understanding of science concepts.

