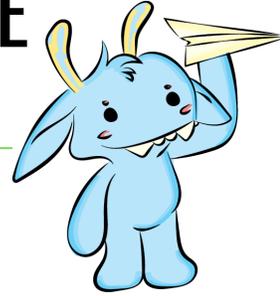




# REDESIGN A PAPER AIRPLANE

Grades 4-8



## MAKE A BETTER PAPER AIRPLANE

4-8: Students improve on their first paper airplane design.

### YA'AT'EEH

5 min

### SNACK / FREEPLAY

30 min

### STORY TIME

15 min

### STEM TIME

50 min

### Materials:

- Mezzie Measuring Tape
- Scissors
- Sheets of paper
- Tape
- Paper clips

### Ya'at'eeh is Navajo for hello! (Pronounced yah-aht-eeh)

Greet your students. Be friendly. Use their name, ask a question, give a high five, or thumbs-up! Take roll. Mark down which students took a snack and tally how many snacks were given out.

### Enjoy free play:

Students enjoy playing outside and eating their snacks.

### Read the story:

Read to your students outside as they sit in a circle. Older students may choose to read their own books during this time.

### K-8 Design A Paper Airplane

*Say: We're going to build more paper airplanes today, and see if we can beat how far our first ones flew! To get inspired, let's see how far the world record paper airplane (so far!) can fly.*

### Instructions:

1. Show students the in-class video.  
<https://www.youtube.com/watch?v=IVQYAdqHjcc>
2. Have students brainstorm ideas to improve their paper airplane designs in small groups, then fold their paper airplanes.
3. Have students cut out and tape new marking cones if necessary and write their names on them.
4. Take students to the airplane test site. Have them bring their paper marking cones, paper airplanes and Mezzie Measuring Tapes. Have student throw their planes 3 or 4 times, marking their farthest throw with their cone. If you have limited space, you may suggest students form several lines to throw their planes instead of all throwing at once.
5. Have students measure their farthest throw by either counting their steps or using a measuring tape, then record their results.
6. Ask students to raise their hands if their airplane flew further than the first one they made. You might do a quick round of applause for everyone, then ask students to raise their hands if their airplane flew at least 5 feet, then keep them up if it flew at least 10, then 15, etc. Invite the student who built the airplane that flew the furthest to show the class their design.

*Ask: What about your design worked well to help the airplane fly far? Why do you think so?*



## SPORTS / GAMES

25 min

\*Older students may practice their sport if they don't want to play the game.

### Materials:

- Two basketballs

## HOMEWORK / FREE PLAY

20 min

## CLEAN UP / DISMISSAL

5 min

### Dribble and Shoot

Objective- Each team will play to get the most points and win

Instructions- Organize the players into two teams. One team will be the dribbling team, and the other will be the shooting team. Have the dribbling team line up at a corner of the basketball court. Then have the shooting team line up at the free-throw line. Younger players on the shooting team may get closer to the hoop to shoot during their turn. To play the game, one player from the shooting team will start with the ball. They will shout "Go!" and begin trying to shoot a basket. This is a signal to the dribbling team. One player from the dribbling team will then begin to dribble their ball to the half-court line and back. If the dribbler can make it back to their corner before the shooter can make a basket, then they will get a point. The shooter will continue to shoot until they make a basket. If the shooter makes a basket before the dribbler returns back to their corner, then the shooting team gets a point, and the dribbler is out, and the next dribbler will take their turn. The game ends when one of the teams has had all their players take a turn. At the end of the game add up the points and see which team has won!

### Instructions:

Allow your students some homework time. If they need help let them know you can help them. If they do not have any homework they can have some reading time, or they can have free time to go outside and play.

### Clean up/pack up/dismissal

Clean up, pack up and head home.