

Air Combat - Paper Airplanes and Whizzers Robert P. Adams (Dr. Bob)

This event features the Whizzers and paper airplanes. You will need a large indoor area (ex. high school gym), free from wind drafts with a high ceiling. Lay out two parallel monofilament fishing lines (20 lb. test) at least 135 ft. long. Be sure the lines can be stretched tightly. It is best to have the finish tied several feet higher than the start. Then the Whizzers have to climb the last section and that really puts the brakes on them.

Build Whizzers in a regular meeting and practice building paper airplanes in a meeting. Build paper airplanes on the spot from 8 1/2" x 11" white copy paper (20 lb.).

Awards (medals for 1st, ribbons for 2, 3rd) for:
 Whizzers - longest distance; paper airplanes: Time aloft, Distance and Accuracy (landing on a target, ex. 3' x 6' aircraft carrier deck [eg. tape outline on the floor with an X in the center] - measure distance from center of target (X), closest distance in 3 tries is 1st place, next closest is 2nd place, etc.



Suggested Schedules: (for a 1 hour time frame)

Schedule 1

2 groups, 1-2nd graders, 3-6th graders:

East side of gym:

Group	7pm	7:15	7:30	7:45
1st Grade	Whizzers	time aloft	distance	landing accuracy
2nd Grade	distance	landing accuracy	Whizzers	time aloft

West side of gym:

Group	7pm	7:15	7:30	7:45
3rd grade	Whizzers	time aloft	distance	landing accuracy
4th grade	landing accuracy	Whizzers	time aloft	distance
5th grade	distance	landing accuracy	Whizzers	time aloft
6th grade	time aloft	distance	landing accuracy	Whizzers

Schedule 2

2 groups, 1-3rd graders, 4-6th graders:

East side of gym:

Group	7pm	7:15	7:30	7:45
1st grade	landing accuracy	Whizzers	time aloft	distance
2nd grade	distance	landing accuracy	Whizzers	time aloft
3rd grade	time aloft	distance	landing accuracy	Whizzers

West side of gym:

Group	7pm	7:15	7:30	7:45
4th grade	landing accuracy	Whizzers	time aloft	distance
5th grade	distance	landing accuracy	Whizzers	time aloft
6th grade	time aloft	distance	landing accuracy	Whizzers

Adjust this schedule to meet your groupings. It is important to keep the clubs moving from event to event on schedule (run this somewhat like a track meet, with timers to blow a whistle to rotate events).

General needs: Air Horn or whistle to signal that time has elapsed for an event.

Whizzers:

Supplies needed: Clipboard with list of boys names by club, fishing line (100 yds., 20 lb.), extra 7" rubber bands (see Whizzers), masking tape, Sharpie® marker pen.

Working the event: Put each boy's name on a 6" piece of masking tape.

1. Boys form a line and begin to wind up their Whizzer (if their rubber band breaks give them 1 (or 2) replacement rubber band. Tell the boys before the Whizzers - "Ready to Fly" competition how many replacement

rubber bands they will get. When they break the last rubber band, then that they can tie a knot in their broken rubber band and continue to compete.

2. Adult will hook the Whizzer over the fishing line, bending the wire so it clasps the line in case the Whizzer flips over the line it will not fall off (flipping due to the initial propeller inertia is common).

3. Boy releases propeller (or one may let an adult do this for small boys who tend to fumble the propeller just as the Whizzer is being placed on the line, so they have to go back in the line and re-wind their propeller). If you are pressed for time, have an adult take the wound-up Whizzer from the



boy and hold it while another adult hooks the wires to the fishing line.

4. Adult (with a clipboard with all the boy's names on pieces of masking tape) waits down line ward and sticks the boy's name/tape on the floor to mark the forward most position of this attempt. He unhooks the Whizzer and gives it to the boy, who goes to the end of the line and begins to re-wind his propeller.

5. On the next round of competition (2nd round), a boy's position may be moved forward if he gets a longer run. Thus, after 3 rounds (or as many as you have time for), the farthestmost tapes will have the 1st, 2nd and 3rd place finishers. This saves measuring each boy's attempt and writing it down. And saves lots of time! An alternate to sticking the tape on the floor is to use 2" x 4" blocks and put their tape on a block, then position the block each time. Of course if their 1st attempt is better than a subsequent attempt, just leave their tape in the original position.

Awards: Trophies or ribbons for longest distance and Whizzer patches (see Special Events Patches section) and year arc (Patch Place, Where To Get It).

Paper Airplanes - Time aloft: World Record endurance time is 18.80 sec.! (The world record paper airplane book, Ken Blackburn & Jeff Lammers, Workman Publ., NY).

Supplies needed: Stop watch, 8 ½" x 11" copy paper (2 or 3 sheets per boy as they tend to goof up their first try), a clipboard with a list of boys names by club (listed alphabetically is easiest) with four columns: 3 columns for times and the 4th column to record their place finish.

1. Have boys get a piece of 8 ½ x 11" paper and make a paper airplane (you could make this a father/son activity. If so, be sure to have some adults who will be a "godfather or big brother" to those boys who don't have fathers present).

2. Form a line.

3. Have each boy throw his airplane.

4. Time the flight until the airplane touches the floor.

5. Record that boy's time on the master sheet of boys names for this club.

Awards: Ribbons or trophies for longest time aloft, 2nd, 3rd places.

Note: This is a better event for older boys as younger boys (1-3rd graders) tend to lose interest.

Paper Airplanes - Distance

Supplies needed: Stop watch, 8 ½" x 11" copy paper (2 or 3 sheets per boy as they tend to goof up their first try); a clipboard with a list of boys names by club (listed alphabetically is easiest) with four columns: 3 columns for times and the 4th column to record their place finish; 100' tape measure. There are several ways to score this event. One of the best is to lay the 100' tape straight in front of the boys and tell them that their distance is the distance along the tape, less the distance from the tape (to the left or right). This is easy to measure by using a second 25' tape. Walk down the tape until their plane is perpendicular to the 100' tape. Have a helper hold the end of the 25' tape on the spot on the 100' tape. Then walk pulling out the 25' tape until you reach the airplane. Then circle back to the 100' tape, going towards the starting line. When you reach the 100' tape, look down and read the distance, that gives you the net distance (without making arithmetic errors!).

1. Have boys line up alphabetically, and throw their airplanes.

2. Measure and record their net distances.

3. Repeat for 3 throws, then rank the longest 3 distances.

Awards: Ribbons or trophies for longest distance, 2nd, 3rd places.

Paper Airplanes - Landing Accuracy

Supplies needed: Stop watch, 8 ½" x 11" copy paper (2 or 3 sheets per boy as they tend to goof up their first try), a clipboard with a list of boys names by club (listed alphabetically is easiest) with four columns: 3 columns for times and the 4th column to record their place finish, masking tape, 25' measuring tape. Make a 3' x 6' rectangle on the floor with masking tape and put an X in the center of the rectangle.

1. Have boys line up alphabetically, about 20' away for the younger boys and about 30' for the older boys, and throw their airplanes.
2. Measure and record their distance from the X on the rectangle (aircraft carrier).
3. Repeat for 3 throws, then rank three that landed closest to the X.

If you want to make it more difficult, confiscate any airplane that fails to come to a rest on the 'aircraft carrier', make them make a new airplane and only measure the airplanes that come to rest on the 'aircraft carrier'. This is a lot more difficult than it seems as the airplanes tend to slide on the gym floor for some distance!

Awards: Ribbons or trophies for closest landing to the X, 2nd, 3rd.