

PAPER PLANE CHALLENGE: SOLVING AIRPORT DELAYS



DURATION

50-60 minutes Age Group: 8-11 years old
Theme: Aviation and Problem-Solving

OBJECTIVE

Students will work in teams to solve a simulated airport delay problem using paper airplanes, enhancing their problem-solving, teamwork, and critical thinking skills while learning about aviation concepts.

MATERIALS

- Coloured paper (different colours for each team)
- Scissors
- Tape
- Stopwatches or a timer
- Whiteboard or large paper for scorekeeping
- Obstacle materials (e.g., cardboard boxes, chairs)

ACTIVITY BREAKDOWN



INTRODUCTION (5 MINUTES)

- Explain the scenario: The local airport is experiencing delays due to a busy holiday season.
- Teams represent different airlines trying to get their planes (paper airplanes) to their destinations quickly and safely.

2

TEAM FORMATION AND PREPARATION (10 MINUTES)

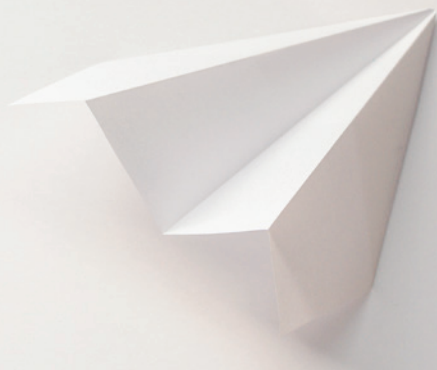
- Divide the class into 3-4 teams of 4-5 students each.
- Each team creates 3 paper airplanes using their assigned colour paper.
- Teams brainstorm and practice flying techniques.

3

AIRPORT SETUP (5 MINUTES)

- Create an "airport" in the classroom or outdoor area with:
- A takeoff area
- A landing zone (destination)
- Obstacles representing weather conditions or air traffic



**4**

THE CHALLENGE

(25 MINUTES)

- Each team must get all their planes to the destination as quickly as possible.
- Only one plane can be in the air at a time.
- If a plane hits an obstacle or doesn't reach the destination, it must return to the start.
- Teams can modify their planes between flights.
- Record the time taken for each team to complete the challenge.

**5**

PROBLEM-SOLVING SESSION

(10 MINUTES)

Teams discuss strategies to improve their performance:

- How can they make their planes fly further or more accurately
- What formation or order of planes work best?
- How can they avoid obstacles?

6

REFLECTION AND CONCLUSION

(5 MINUTES)

Discuss as a class

- What strategies worked well?
- How did teams solve problems they encountered?
- What did they learn about air travel and airports?

EXTENSION IDEAS

- Introduce “**weather conditions**” (e.g., using a fan) that teams must adapt to.
- Add a “**fuel efficiency**” component by limiting the number of throws allowed.
- Create a “**cargo challenge**” where planes must carry small payloads.

LEARNING OUTCOMES

- Enhanced problem-solving and critical thinking skills
- Improved teamwork and communication
- Basic understanding of aviation challenges and concepts
- Practice in adapting strategies based on results



AeroDiscover

Inspiring aviation & aerospace pioneers