

HELLO! WELCOME TO THE HOMESCHOOL SCIENTIST



Aircraft Engineering Challenge Cards



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Aircraft Engineering Challenge

Flies the Farthest

Build a paper airplane that flies the farthest.

2025 THSS

Aircraft Engineering Challenge

Carry a Load

Design a paper plane that can carry a penny.

2025 THSS

Aircraft Engineering Challenge

Testing Flaps

Add flaps to control lift and drag.

2025 THSS

Aircraft Engineering Challenge

Loop-Dee-Loop

Create an airplane that flies in a loop.

2025 THSS

Aircraft Engineering Challenge

Compare 3 Designs

Test 3 different wing shapes for distance.

2025 THSS

Aircraft Engineering Challenge

Tail Designs

Compare tail designs and their effects on stability.

2025 THSS

Aircraft Engineering Challenge

Be Nosey

Test nose shapes (pointed, flat, rounded) for speed.

2025 THSS

Aircraft Engineering Challenge

Play Hoops!

Create a plane that can fly through a hoop target.

2025 THSS

Aircraft Engineering Challenge

Add a Straw

Design an airplane that you can launch by blowing into a straw.

2025 THSS

Aircraft Engineering Challenge

Runway Accuracy

Fly a paper plane to land on a “runway” (target zone). Use angles and prediction to improve accuracy..

2025 THSS

Aircraft Engineering Challenge

Launch Angle Lab

Fly the same plane at different launch angles (30° , 45° , 60°). Which goes farthest?

2025 THSS

Aircraft Engineering Challenge

DIY Glider

Use cardboard, index cards, or foam to create a glider. Can it glide from a height without nosediving?

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