

Air, Aerodynamics, and Flight Checklist

Essential Question: How do things fly in the air?



Checklist

Use this checklist to track your activities and assessments for Air, Aerodynamics, and Flight Unit as you complete them.

What is air?

- **What is air made of?**
 - ☐ Discover: Up in the Air
 - ☐ Observe: Proof in the Air
 - ☐ Exit Pass
- **What are the properties of air?**
 - ☐ Explore: Is Air Really There?
 - ☐ Explore: Under Pressure
 - ☐ Discover: Air as a Fluid
 - ☐ Exit Pass
 - ☐ Self-Assessment: What is air?
 - ☐ Assessment 1: Alien Air

What forces are involved in flight?

- **How do flying devices and living things counter act gravity?**
 - ☐ Observe: Defying Gravity
 - ☐ Exit Pass
- **How does air movement across a surface result in lift?**
 - ☐ Observe: Air in Motion
 - ☐ Observe: Bernoulli Basics
 - ☐ Explore: Bernoulli Brain Teasers
 - ☐ Exit Pass
- **How can drag be reduced?**
 - ☐ Explore: What is Drag?
 - ☐ Explore: Parachute Plunge
 - ☐ Exit Pass

- **What means of propulsion are used in aircraft?**

- ☐ Observe: Types of Propulsion
- ☐ Explore: Propellers in Action
- ☐ Explore: Propulsion Pop!
- ☐ Exit Pass
- ☐ Self-Assessment: What are the forces involved in flight?
- ☐ Assessment 2: Forces in Flight

What parts are needed for things to fly?

- **How does a hot-air balloon fly?**

- ☐ Observe: Lighter Than Air
- ☐ Observe: Fly Your Own Hot Air Balloon
- ☐ Exit Pass

- **What adaptations enable birds and insects to fly?**

- ☐ Observe: Airplanes vs. Birds
- ☐ Observe: Build a Bird
- ☐ Exit Pass

- **How do the parts of an aircraft stabilize and control its flight?**

- ☐ Observe: Parts and Movements of an Airplane
- ☐ Observe: Airfoil Design
- ☐ Exit Pass
- ☐ Self-Assessment: What parts are needed for things to fly?
- ☐ Assessment 3: Comparing Things that Fly
- ☐ Final Assessment: Glider Design

If you have

- **not** submitted the assessments, please do so now.

If you have completed all activities, you can go on to another unit of your choice.

Congratulations!