

How Planes and Other Aircraft Fly Lesson & Activity Bundle

- Lesson
- Worksheets & Labs
- NO PREP - Just download and Go!
- Grade 7-10



“

★★★★★ Extremely satisfied - Thank you so much for putting in your time and energy on this resource! It was a life saver!

★★★★★ Extremely satisfied - This is a wonderful resource! Great aid in teaching my students about the 4 forces of flight.

”

SCROLL
to take a look inside!

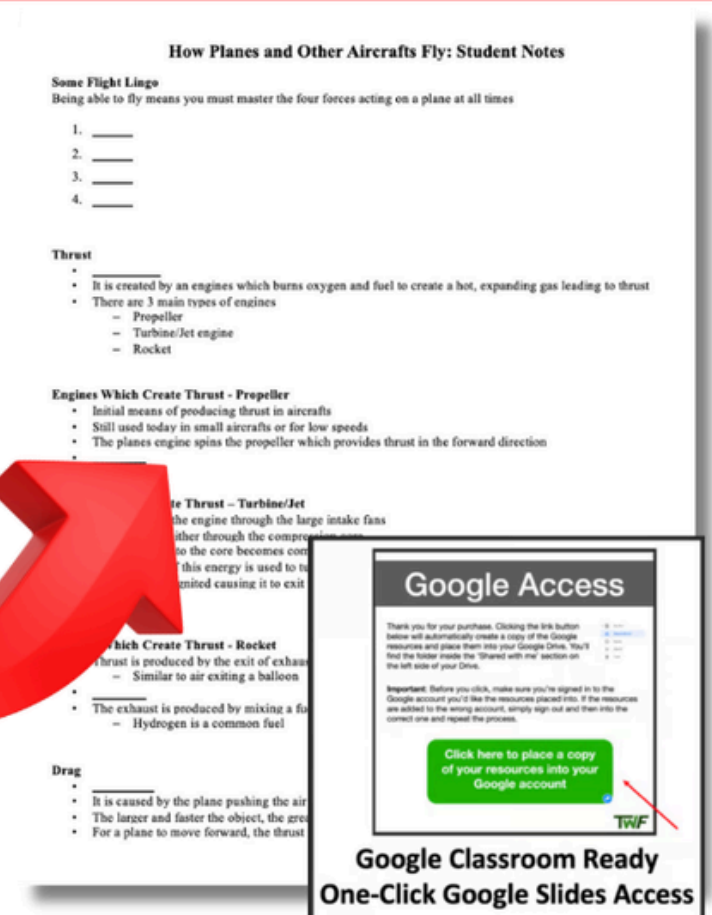


HOW THIS LESSON HELPS YOU

- **Saves Prep Time** - Everything is pre-made, ready to go, and fully editable.
- **Provides Built-In Assessments** - Includes Worksheets, Labs, and Activities.
- **Provides Applicability** - the lesson includes multiple examples of real-life applications.

NO PREP

- ✓ **Simply Download and Teach**
- ✓ **100% Print and Digital**
- ✓ **Fill-in-the-Blank Student Notes**
- ✓ **Assessments Included**
- Multiple worksheets and lab activities
- ✓ **Google, Office, & PDF**





A Complete, Fully-Editable Lesson & Student Notes



Teacher and Student Versions of your Lesson with Embedded Videos



Worksheets, Labs, and Activities to Check for Understanding



Paper Airplane Angle of Attack STEM Lab

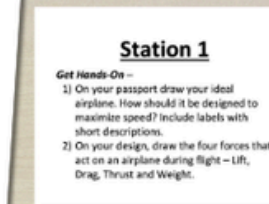
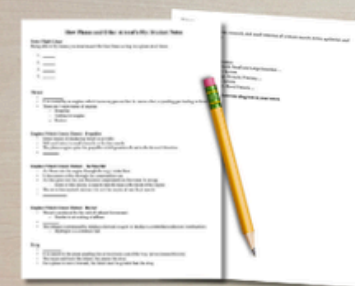
Scientific Method • Variables • Data & Graphing
✓ Classroom-Ready
✓ Data tables + bar graph templates included



What You Get

HOW PLANES AND OTHER AIRCRAFT FLY TEACHER & STUDENT VERSION

Fill-in-the-Blank Student Notes in Word



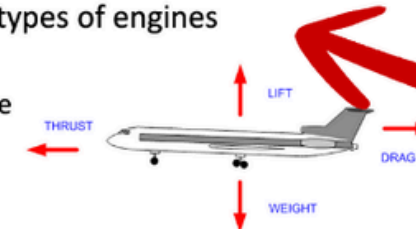
STEM Lab and Activities



**Student Version of
your Lesson**

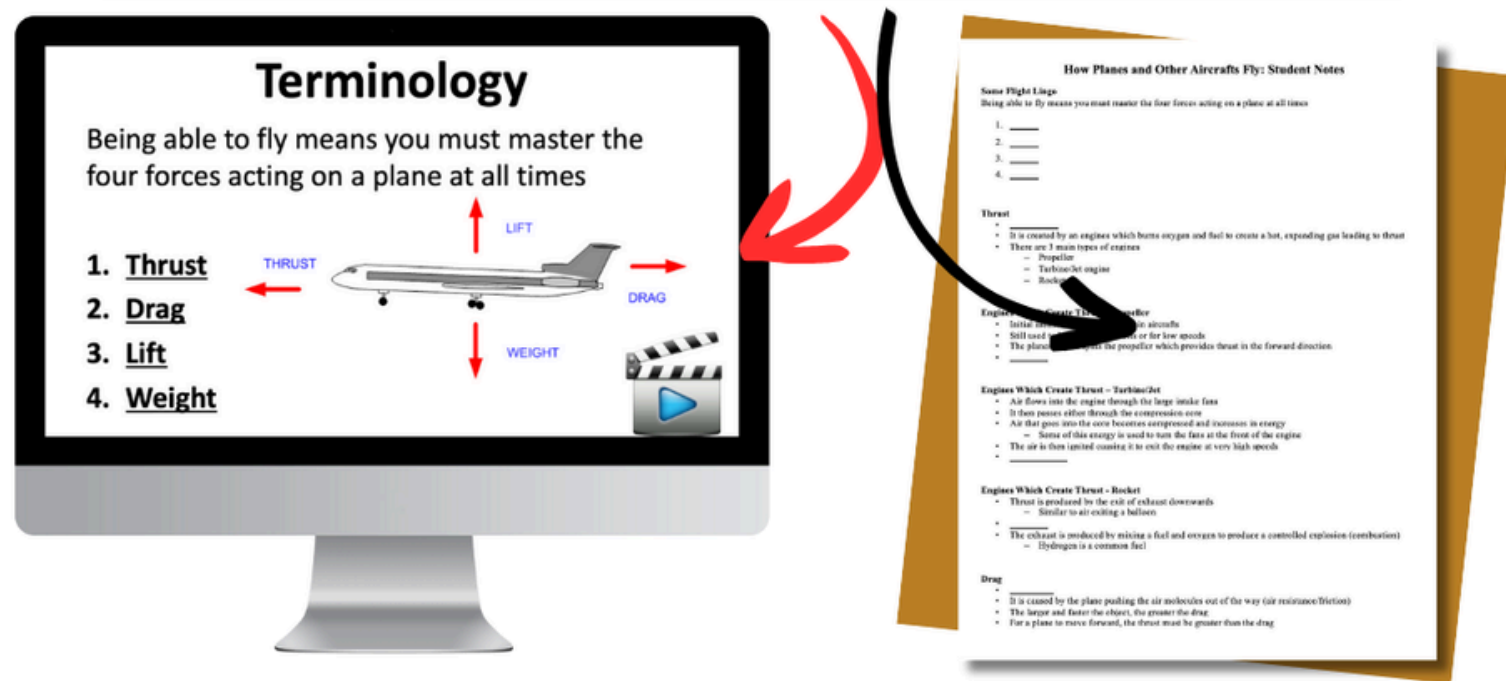
Thrust

- _____
- It is created by an engines which burns oxygen and fuel to create a hot, expanding gas leading to thrust
- There are 3 main types of engines
 - Propeller
 - Turbine/Jet engine
 - Rocket

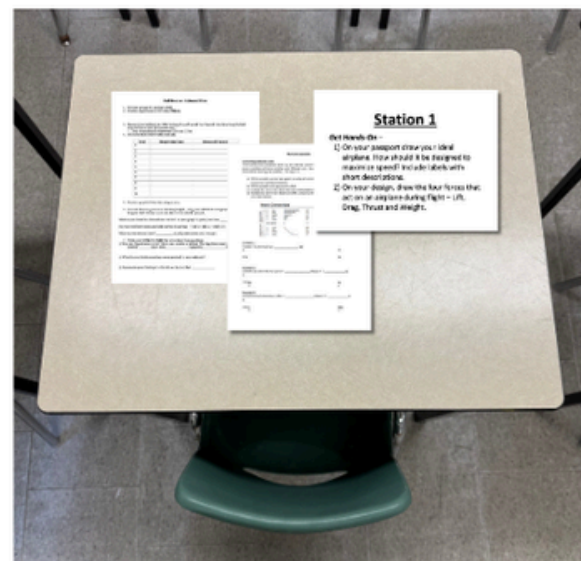


What Will Your Students Learn?

Videos Embedded & Fill-in-the-Blank Student Notes



Lab Station Activity + STEM Investigation



- ✓ Propellers and Turbo/Jet Engines
- ✓ Rocket Engines
- ✓ Thrust, Drag, Lift, Weight
- ✓ Flight
- ✓ Taking Off
- ✓ Flying
- ✓ Banking and Landing
- ✓ Hot Air Balloons and Helicopters



Your Lesson

How Planes and Other Aircrafts Fly: Student Notes

Some Flight Lingo
Being able to fly means you must master the four forces acting on a plane at all times

- _____
- _____
- _____
- _____

Thrust

- _____
- It is created by an engines which burns oxygen and fuel to create a hot, expanding gas leading to thrust
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Engines Which Create Thrust - Propeller

- Initial means of producing thrust in aircrafts
- Still used today in small aircrafts or for low speeds
- The planes engine spins the propeller which provides thrust in the forward direction
- _____

Engines Which Create Thrust – Turbine/Jet

- Air flows into the engine through the large intake fans
- It then passes either through the compression core
- Air that goes into the core becomes compressed and increases in energy
 - Some of this energy is used to turn the fans at the front of the engine
- The air is then ignited causing it to exit the engine at very high speeds
- _____

Engines Which Create Thrust - Rocket

- Thrust is produced by the exit of exhaust downwards
 - Similar to air exiting a balloon
- _____
- The exhaust is produced by mixing a fuel and oxygen to produce a controlled explosion (combustion)
 - Hydrogen is a common fuel

Drag

- _____
- It is caused by the plane pushing the air molecules out of the way (air resistance/friction)
- The larger and faster the object, the greater the drag
- For a plane to move forward, the thrust must be greater than the drag

Student Notes in Word

Teacher and Student Versions of the Lesson

Lab Station Activity + STEM Investigation

HOW PLANES FLY Lab Station Activity

Paper Airplane Angle of Attack STEM Lab

Scientific Method • Variables • Data & Graphing
✓ Classroom-Ready
✓ Data tables + bar graph templates included

Interactive Lab Station
✓ Flight Review
✓ No-Prep Setup
✓ Bonus Word Activities

Videos embedded in your slides

HOW PLANES AND OTHER AIRCRAFT FLY

TEACHER & STUDENT VERSION

Fill-in-the-Blank Student Notes in Word

STEM Lab and Activities

Thrust

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- There are 3 main types of engines
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Videos Embedded & Fill-in-the-Blank Student Notes

Terminology

Being able to fly means you must master the four forces acting on a plane at all times

- Thrust**
- Drag**
- Lift**
- Weight**

As a special bonus, I want to send you a few resources that you can use in your classroom tomorrow. Completely free and geared towards what you teach!



Just



and then choose what you teach!

thanks
**for your interest
in this resource!**



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