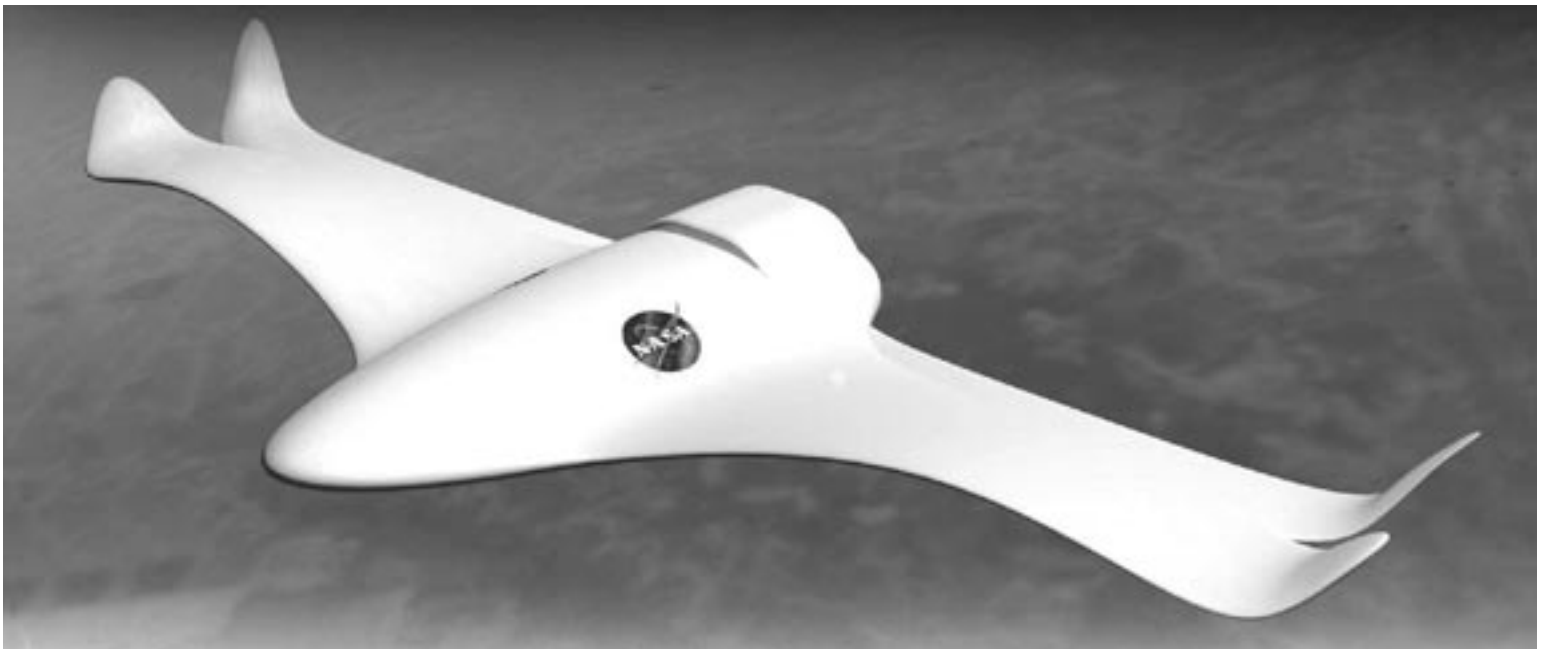
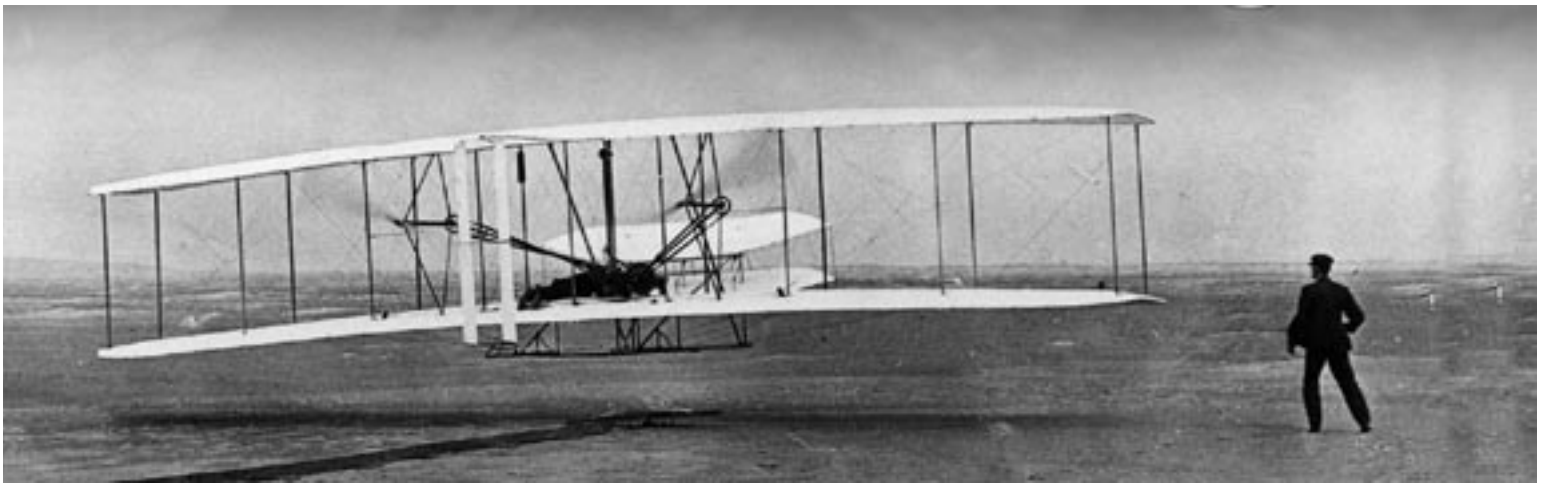


Fly to the Future

This activity is from *Fly to the Future* Summer Camp. For more information on how your Challenger Learning Center can obtain a copy of this camp curriculum, contact the Challenger Learning Center of Greater Washington at (703) 837-5640.

To find out how to attend a Challenger Learning Center summer camp, contact your local Learning Center. To find a Learning Center near you, visit www.challenger.org.



Challenger CENTER

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Logic Puzzles

Grade Level
5 - 7

Activity Type
Logic puzzle

Duration
15 minutes

Scheduled Time
Thursday, 8:45

Content Overview
Different types of problem solving are very important in the designing of new aircraft. This activity gives campers the opportunity to use some of these problem solving skills.

Essential Question
Can problem solving skills be used to effectively solve logic problems?

Objectives
Campers will be able to:

- Solve logic problems.

Materials
Per camper:

- Journal Entries

Answer Key
Puzzle 1: The plane had an aerospike engine, a flying wing shape, a ceramic tile exterior, and was blue in color.
Stacy - aerospike
Ashley - flying wing
Tim - tile exterior
John - blue color

Puzzle 2: The word is AIR.

Puzzle 3: Matt, Beth, Liz, Mike

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LOGIC PUZZLE 1

On a tour of NASA's Langley Research Center, Stacy, Ashley, Tim, and John were lucky enough to see a prototype of NASA's latest aircraft design. The trouble is, when they got back to school, none of them could agree on exactly what they saw. Each of them remembers only one detail correctly, and each detail is described correctly by only one of them. Can you figure out what the airplane really looked like?

Stacy says it had an aerospike engine, a titanium exterior, swept wings, and was silver in color.

Ashley says it had a turboprop engine, a titanium exterior, was gray in color, and was a flying wing.

Tim says it had a jet engine, a ceramic heat tile exterior, delta wings, and was white in color.

John says it had a turboprop engine, a titanium exterior, swept wings, and was blue in color.

	Engine	Exterior	Wings	Color
Stacy				
Ashley				
Tim				
John				

COMPLETED BY: _____ SIGNATURE: _____ DATE: _____

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LOGIC PUZZLE 2

Find a familiar three-letter word related to flight, using the clues below:

1) RED has one letter in common with it, not in the correct place.
2) TAN has one letter in common with it, not in the correct place.
3) TIN has one letter in common with it, in the correct place.
4) BED has no letters in common with it.

_____ _____ _____

COMPLETED BY: _____ SIGNATURE: _____ DATE: _____

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LOGIC PUZZLE 3

Beth, Matt, Mike, and Liz are four pilots waiting in line for their airplanes to be cleared for take-off. Using the clues below, can you figure out their order?

Matt is not last.
Mike is not next to Matt.
Liz is between Beth and Mike.

COMPLETED BY: _____ SIGNATURE: _____ DATE: _____

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Challenger Center Programs

The internationally acclaimed **Challenger Learning Center** Network currently consists of state-of-the-art, innovative educational simulators located at 49 sites across 29 states, Canada, and the United Kingdom. Staffed by master teachers, the core of each Center is a two-room simulator consisting of a space station, complete with communications, medical, life, and computer science equipment, and a mission control room patterned after NASA's Johnson Space Center. See *www.challenger.org* for information.

A joint initiative of Challenger Center for Space Science Education, the Smithsonian Institution, and NASA, ***Voyage — A Journey through our Solar System*** is a space science exhibition project that includes permanent placement of a scale model solar system on the National Mall in Washington, DC, and at locations all over the world. See *www.voyageonline.org* for information.

Space Day[SM] launches new *Design Challenges* created by Challenger Center each school year. The inquiry-based challenges are designed to inspire students in grades 4-8 to create innovative solutions that could aid future exploration of our solar system. See *www.spaceday.org* for information.

Challenger Center's ***Journey through the Universe*** program provides under-served communities with diverse national resources, including K-12 curriculum materials, teacher workshops, classroom visits by scientists from all over the country, and Family Science Nights. See *www.challenger.org/journey* for information.

The **MESSENGER** spacecraft (MErcury Surface, Space ENvironment, GEochemistry and Ranging) is to be launched in 2004 and go into Mercurian orbit in 2009. Challenger Center is one of the partner organizations charged with MESSENGER education and public outreach activities. See *www.messenger.jhuapl.edu* for information.

Through the Challenger Center **Speakers Bureau, Voyages Across the Universe**, staff members speak to student audiences of 30-1,000, conduct workshops for 100-300 educators, give keynote and featured presentations at conferences, as well as conduct Family Science Nights at the National Air and Space Museum, and other facilities across the nation, for audiences of 300-1,000 parents, students, and teachers. See *www.challenger.org/speakers* for information.

For information about other Challenger Center programs,
or to purchase our classroom resources, visit www.challenger.org/store.