

ON-SITE PROGRAM



Program: “Over, Under, Around, and Through”

Grade Level: 3rd to 5th grade

Group Size: Min. 15, Max. 80

Length: 3 hours

Location: Pacific Aviation Museum Pearl Harbor

Overview

This tour begins with a flight brief as the Flight Boss teaches students the basics of flight instruments and controls before heading into the flight lab to fly on the flight simulators. Student tour historic Hangar 37, where they learn about history by putting on their thinking caps to solve some of the problems engineers faced early in World War II, and use maps and images to gain a geographical understanding of historical events. In Hangar 79, students identify common characteristics of planes, jets, and helicopters, how various parts of an aircraft work, and the importance of designing and engineering for a specific mission/job. Finally, students head to the Hangar 79 classroom to learn the importance of center of gravity and balance as they relate to airplanes.

Objectives

- Understand the relationship between historical events and advancements in aviation
- Gain perspectives of past events through narratives, objects, and historic location
- Use maps to gain a geographical understanding of historical events
- Identify parts of an aircraft and their function
- Find the center of gravity of an object, and determine how the center of gravity can be changed.

Activities

- Hangar 37 Tour
- Flight Lab
- Hangar 79 Tour
- Center of Gravity STEM Lesson

ON-SITE PROGRAM

Standards Supported-Common Core/HCPSIII/NGSS

Common Core:

CCSS.ELA-LITERACY.SL.3.1; SL.4.1; SL.4.1 Engage effectively in a range of collaborative discussions

CCSS.ELA-LITERACY.SL.3.1.B; SL.4.1.B; SL.5.1.B Follow agreed-upon rules for discussions

CCSS.ELA-LITERACY.SL.3.1.D, SL.3.1.D Explain their own ideas and understanding

CCSS.ELA-LITERACY.L.3.4, L.4.4; L.5.4 Determine or clarify the meaning of unknown and multiple-meaning word

CCSS.ELA-LITERACY.L.3.4.A, L.4.4.A; L.5.4.A Use context as a clue to the meaning of a word or phrase.

Hawaii Content & Performance Standards III

Content Area: Science

Standard 1:

SC3.1.1, SC4.1.1, SC5.1.1: Pose a question and develop a hypothesis on observations

Standard 2:

SC5.1.2: Use models and/or simulations to represent and investigate features of objects, events and processes in the real world.

Content Area: Social Studies

Standard 1:

SS.3.1.1 Explain cause and effect relationships in stories and historical narratives

SS.5.1.1 Use chronological order to explain causal relationships between and among people and events

Standard 2:

SS.3.2.2 Analyze varying perspectives of an experience or event based on the differing viewpoints of the teller, listener, and /or the participants

SS.5.2.2 Judge the past in the context of the time instead of imposing present norms and values on historical events

Standard 7:

SS.3.7.1 Use geographic representations to organize and analyze geographic information

Next Generation Science

3-PS2-1: Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-PS2-2: Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.