



build a helicopter

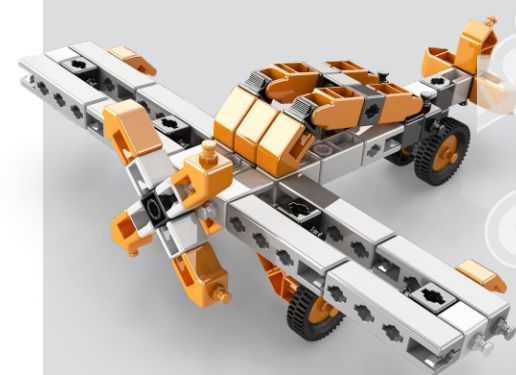
Helicopters are a special category in aviation. Their ability to land and take off vertically makes them ideal for emergency and rescue scenarios. Build you helicopter model and discover:

- How do helicopters fly?
- Why helicopters need a tail rotor?

build a glider

The first attempts of humans to fly were made with gliders. Build your own glider model and observe how bird's wings were the inspiration for engineers to achieve flight.

- When was the first successful flight?
- How do aerodynamics work?



build a single proplane

This model features the propeller which was the first mechanism for propulsion. Even today, acrobatic aircrafts use this technology to achieve their manoeuvres!

- How do pilots control an aircraft?
- Which aircraft holds the speed record?



build a chinook

Chinook is an iconic helicopter with two rotor blades. This powerful machine can carry numerous passengers and lift outstanding amount of load.

- What is moment of inertia?
- How helicopters counterbalance torque?

DISCOVERING STEM

Science • Technology • Engineering • Mathematics

HOW AIRCRAFTS WORK?

Technology of machines

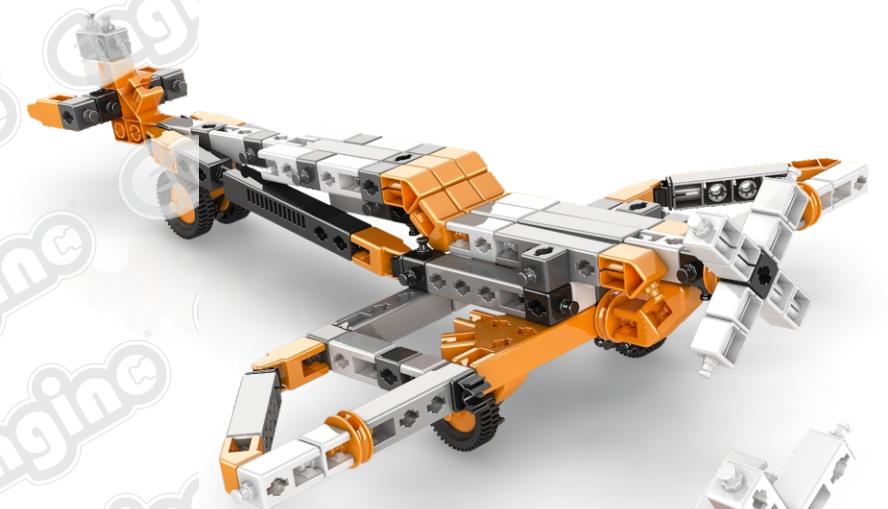
Travelling with an aircraft for holidays or for business is a very common activity. Airplanes are made to combine fast transportation and safety. The development of aviation is considered as one of the highlights in human history, since it has totally changed the way we travel around the Earth. Are you interested to become a pilot? How do pilots control a plane and do acrobatic manoeuvres? Which forces affect a flight? How do helicopters fly?

10 pages of theory and amazing facts!

4 pages of experimental activities!

2 pages of revision quiz!

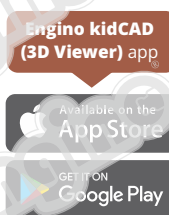
4 pages of step by step instructions!



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