Title: "How An Airplane Flies - Test" - Anthony Perkins

How An Airplane Flies

Start

Scene: 001	Camera: -
Audio: -	Still: Flash Text.

Code: Advance to Scene002.

How An Airplane Flies

Fade in

The Theory of Flight

Scene: 002	Camera: -
Audio: 003mono.mp3+	Still: Flash Text.

Fade in additional titles as narrator is talking. Music overdub: AirplaneBackup.wav. Mix & compress. "How airplanes fly. The theory of flight..."

How An Airplane Flies

The Theory of Flight

Fade in

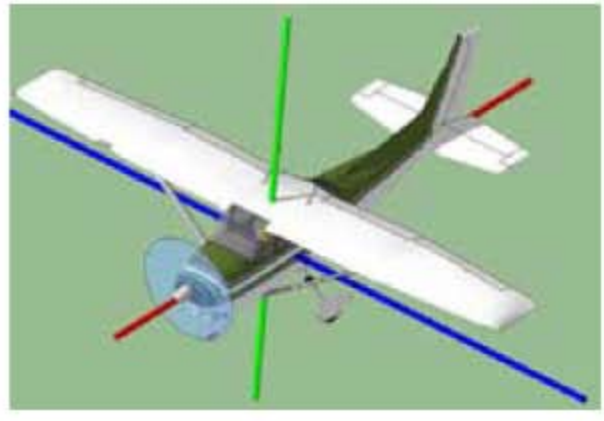
Aircraft Controls and Flight Indicators

Continue

Scene: 002	Camera: -
Audio: 003mono.mp3	Still: Flash Text.

"...Aircraft controls and indicators."
Code: Advance to: Scene003 onMousedown.
(Note: Fade-in all control buttons near the end of audtio unless stated otherwise.)

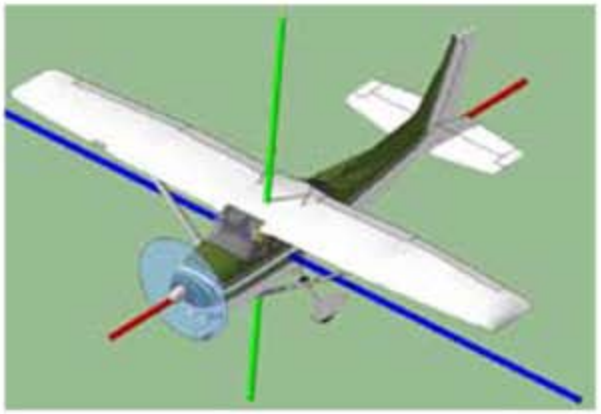
How An Airplane Flies



Scene: 003	Camera: -
Audio: 004mono.mp3 +	Still: Flash Text.

"Today we will talk about how an airplane flies. We'll also talk about the theory of flight, and some basic aircraft controls and indicators..."

How An Airplane Flies



Continue

Scene: 003	Camera: -
Audio: 004mono.mp3 contd	Still: Flash Text.

"...that the pilots use and reference to help them fly safely."
Code: Advance to: Scene004 onMousedown.
(Fade-in control button at end of audio.)

Four aerodynamic forces required for flight.

LIFT

Fade in

DRAG

Fade in

Scene: 004	Camera:-
Audio: 005mono.mp3 +	Still: Flash Text.

Fade in additional titles as narrator is talking.

"There are four aerodynamic forces at work when we engage in flight. They are, Lift, Drag..."

Four aerodynamic forces required for flight.

LIFT

DRAG

THRUST

Fade in

WEIGHT

Fade in

Continue

Scene:004	Camera:-
Audio: 005mono.mp3 contd	Still: Flash Text.

Fade in additional titles as narrator is talking.
"...Thrust and Weight."
Code: Advance to: Scene005 onMousedown.
(Fade-in control button as end of audio.)

LIFT

Continue

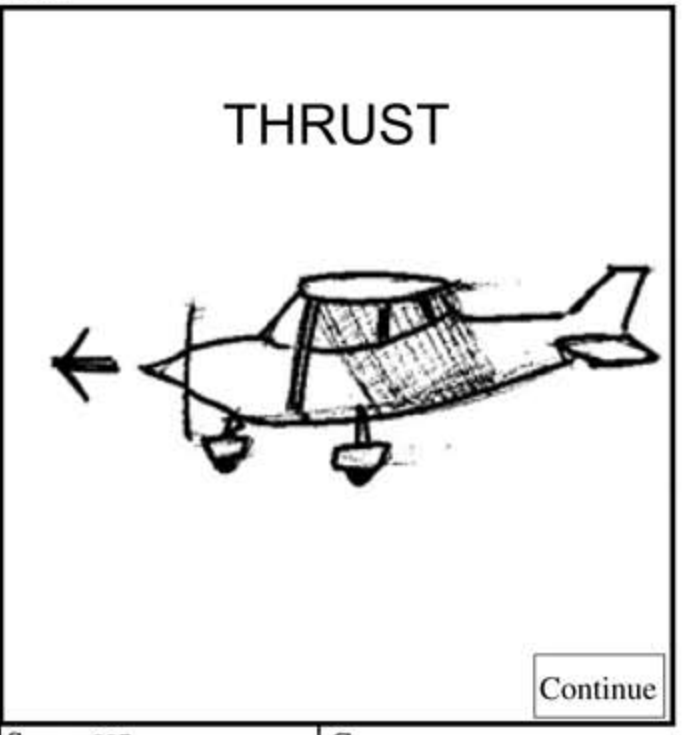
Scene:005	Camera:-
Audio: 006mono.mp3	Still: 004.png

"Lift is a force that holds the airplane in the air. Most of the lift of an airplane comes from its wings although other areas of the fuselage provide or contribute to lift as well."
Code: Advance to: 006 onMousedown.

Scene: 006	Camera: -
Audio: 007mono.mp3	Still: 007.png

"Drag is a force that resists the motion of an object moving through the air. You experience this when you stick your hand out of a moving vehicle. Drag is the friction which...."

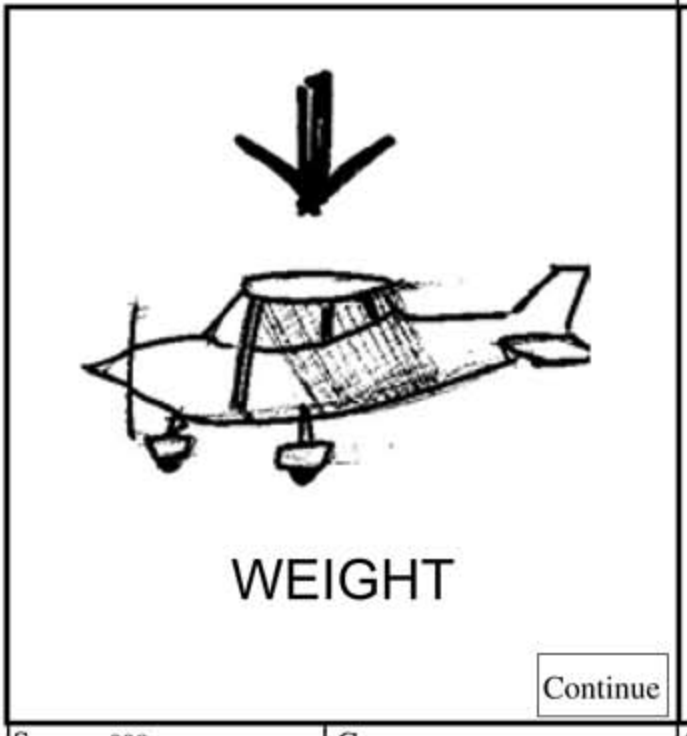
Code: Advance to: 007 onMousedown.



Scene:007	Camera:-
Audio: 008mono.mp3	Still: 008.png

"Thrust is a force that must be created in an airplane to generate motion either by rockets, engines, or a propeller. Energy is required in order for there to be motion. The air...."

Code: Advance to: 008 onMousedown.



Scene: 008	Camera: -
Audio: 009mono.mp3	Still: 009.png

"Weight is a measurement of how much force gravity exerts on a body or an object."

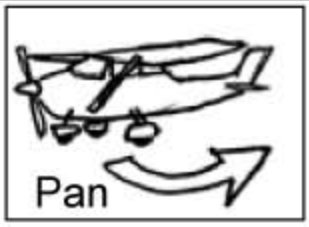
Code: Advance to: 009 onMousedown.

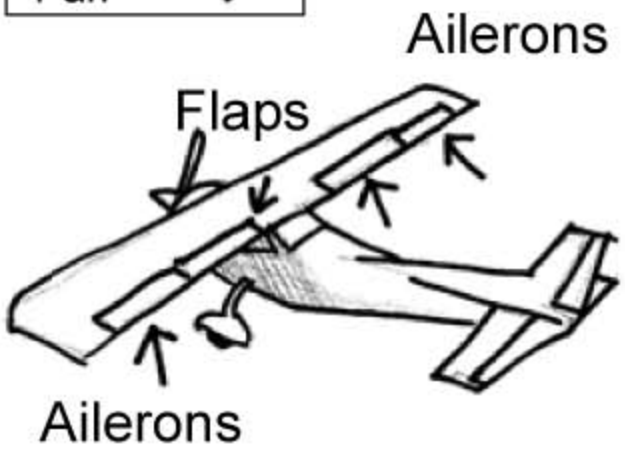
Scene:009	Camera:-
Audio: 009.mp3	Still: 007alternate2.png & Flash Text.

"Now, an airplane flies straight and level only when the thrust of the airplane is equal to the drag, and when the lift is equal to the weight of the craft and its contents."

Code: Advance to: 010 onMousedown.

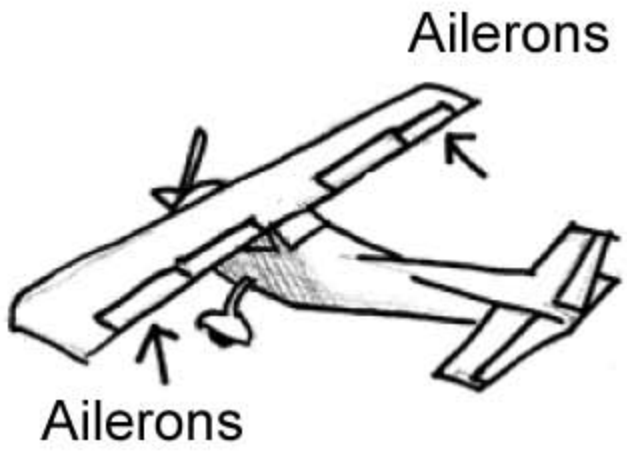
Title: "How An Airplane Flies - Test" - Anthony Perkins





Scene: 010	Camera: 3D-video010.f4v
Audio: 010.mp3 dubed.	Still: -

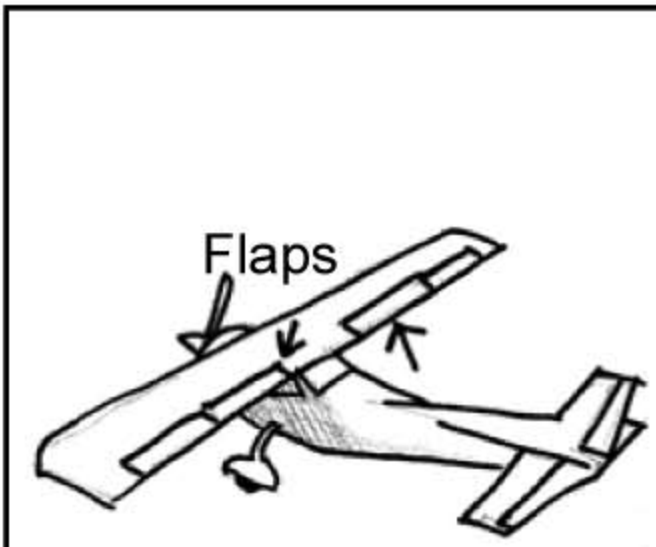
"Here are the airplane's Flight surfaces that affect the flying characteristics of the airplane. The pilot's feet and hands control each of these surfaces through the use of cables,..."



Scene: 010 contd.	Camera: 3D-video010.f4v
Audio: 010.mp3 contd.	Still: -

"...linkages, motors and hydraulics. The Wing has Ailerons outboard and Flaps, inboard."

Code: Advance to: 009 onMousedown.



Continue

Scene: 010 contd.	Camera: 3D-video010.f4v
Audio: 010.mp3 contd.	Still: -

"...linkages, motors and hydraulics. The Wing has Ailerons outboard and Flaps, inboard."

Code: Advance to: 011 onMousedown.

Scene: 011	Camera: 3D-video011.f4v
Audio: 011.mp3 dubed.	Still: -

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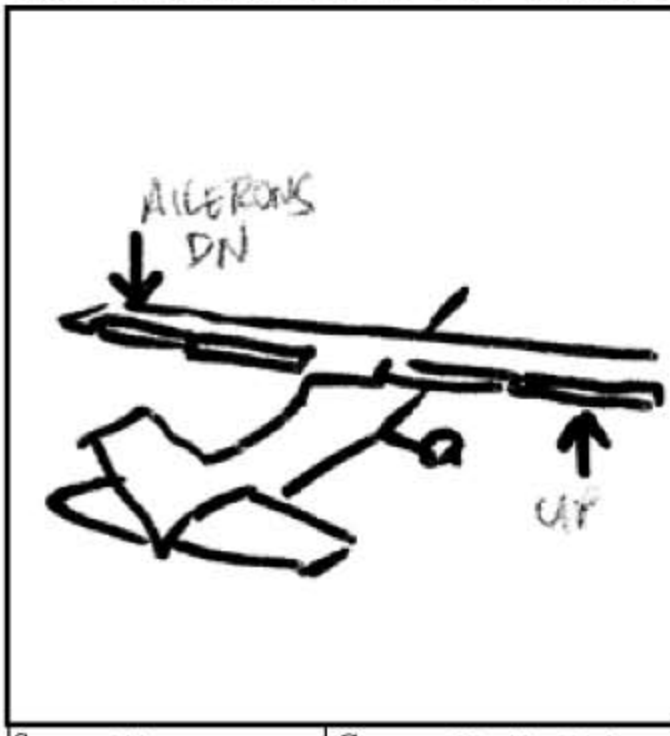
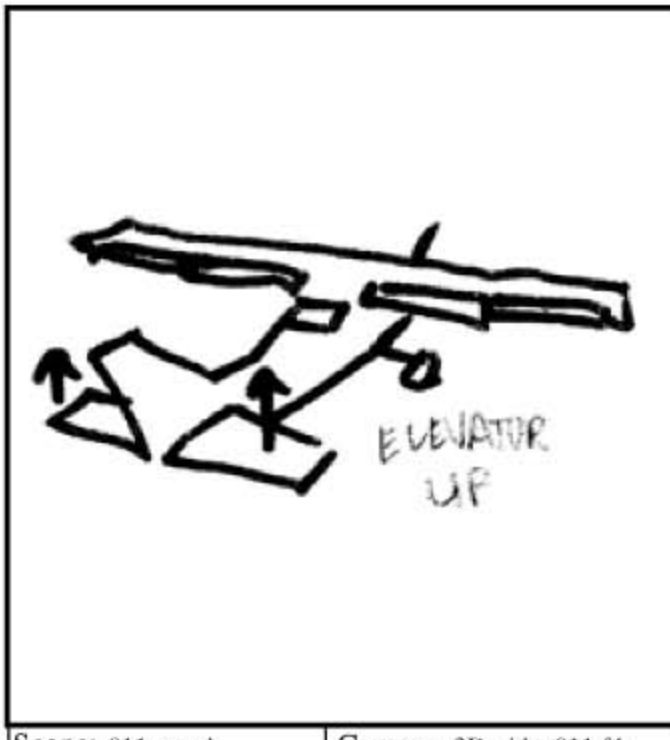


Scene: 011	Camera: 3D-video011.f4v
Audio: 011.mp3 contd.	Still: -

"Note how the ailerons move in oposite directions to one another; however..."

Scene: 011 contd.	Camera: 3D-video011.f4v
Audio: 011.mp3 contd.	Still: -

"...the flaps are synchronized when they move up and down."



Scene: 011 contd.	Camera: 3D-video011.f4v
Audio: 011.mp3 contd.	Still: -

"The Horizontal Stabilizer has an Elevator..."

Scene: 011 contd.	Camera: 3D-video011.f4v
Audio: 011.mp3 contd.	Still: -

"...and the Vertical Stabilizer has a Rudder."

Code: Advance to: 012 onMousedown.

QUESTION:

Which forces are at work when we engage in flight?

Which forces are at work when we engage in flight?

A	B	C
Lift	Weight	Drag
Drag	Length	Weight
Thrust	Drag	Capacity
Weight	Thrust	Lift

Scene: 012	Camera: -	Scene: 012 contd.	Camera: -
Audio: 012mono.mp3	Still: Flash Text.	Audio: 012mono.mp3 contd.	Still: Flash Text.

"Now let's pause for a question: Select the group of forces which are at work when we engage in flight:..."

"A: Lift, Drag, Thrust and Weight. B: Weight, Length, Drag and Thrust, or C: Drag, Weight, Capacity and Lift?
Code: ButtonA: Advance to: 013 onMousedown.
ButtonB: Advance to 014 onMousedown. ButtonC: Advance to 014 onMousedown.

Which forces are at work when we engage in flight?

CORRECT!

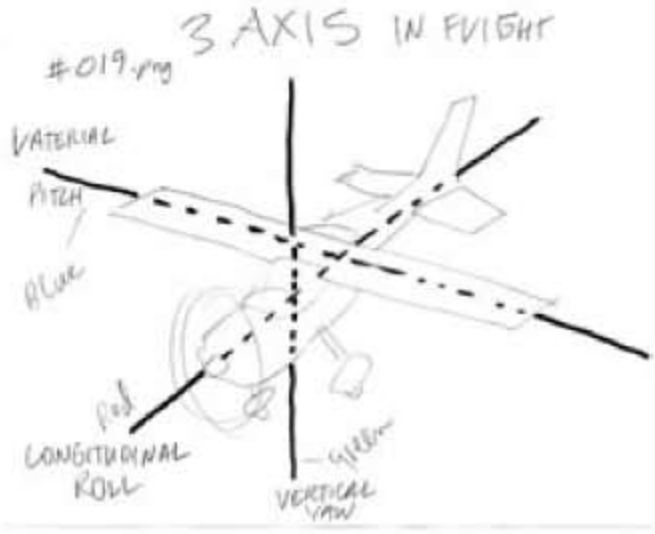
Lift

Drag

Thrust

Weight

Continue



Continue

Scene: 013	Camera: -	Scene: 016	Camera: -
Audio: 013mono.mp3	Still: Flash Text.	Audio: 016mono.mp3	Still: 020.png

"A" is correct!"
Code: Advance to: 016 onMousedown.

"As an airplane moves about the air, it does so in three axis or planes. We'll use the word "Axis" to avoid confusion. Here are the three Axis and the Flight Control that affect it."
Code: Advance to: 017 onMousedown.

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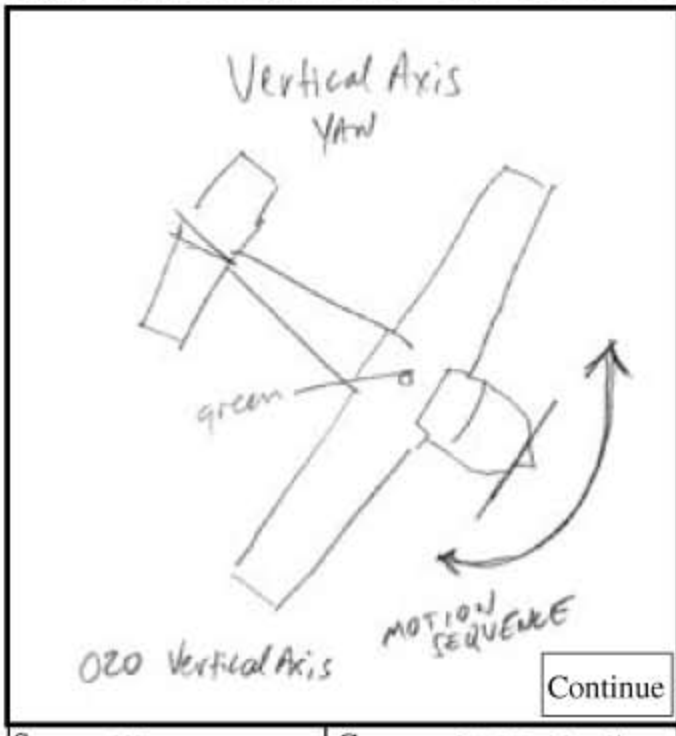
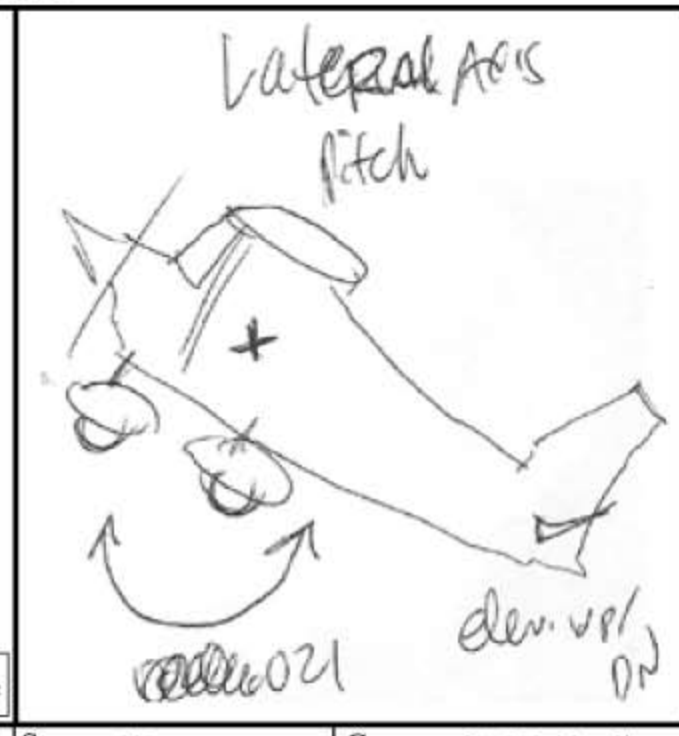


Scene: 017	Camera: 3D-017video.f4v
Audio: 017mono.mp3 dub.	Still: -

"Vertical Axis, Left and Right Turn called: "Yaw" control and is controlled by the pilot's feet by stepping on the Rudder Pedals."

Code: Advance to: 018 onMousedown.



Scene: 018	Camera: 3D-018video.f4v
Audio: 018mono.mp3 dub.	Still: -

"Lateral Axis affects Climb and Dive. This is called: "Pitch" control. The Elevator affects this and is moved when the pilot pushes or pulls on the Steering Yoke...."

Scene: 018 contd.	Camera: 3D-018video.f4v
Audio: 018.mp3 dub.	Still: -

"When the Steering Yoke is pulled back, the Elevators tilt up and the Nose of the aircraft is pitched upwards."

Code: Advance to: 019 onMousedown.

Scene: 019	Camera: 3D-019video.f4v
Audio: 019.mp3 dub.	Still: -

"Longitudinal Axis is the Left and Right Roll. "Roll" control is performed by the Ailerons. The Ailerons are located on each wing and they act in opposite directions from one another...." Code: Advance to: 020 onMousedown.

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This concludes this test of: How An Airplane Flies. The End.	That answer is incorrect. Let's review... Continue
Scene: 020 / Camera: -	Scene: 014 / Camera: -
Audio: 020endingMono.mp3 / Still: TheEndSlide.png & Flash Text.	Audio: 014mono.mp3 / Still: QuestionScreen.png & Flash Text.
"This concludes this test of How an Airplane Flies." Code: Stop Program.	"Sorry. That is incorrect. Let's review this one again..." Code: Return to: 004 onMousedown.