

## 41058 Identify aircraft components and principles of aircraft flight

<b>Kaupae   Level</b>	2
<b>Whiwhinga   Credit</b>	2
<b>Whāinga   Purpose</b>	<p>This skill standard is intended for learners pursuing foundational knowledge in aviation.</p> <p>People credited with this skill standard are able to identify aircraft components and principles of aircraft flight.</p>

### Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako   Learning outcomes	Paearu aromatawai   Assessment criteria
1. Identify aircraft components and principles of aircraft flight.	a. Identify major aircraft components in terms of their function.
	b. Identify the major principles of aircraft flight.
	c. Describe the production of lift by an aerofoil.
	d. Describe the major forces acting on a powered aircraft in flight and the effects of primary controls for an aeroplane or helicopter.

### Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

#### Assessment specifications:

The level of knowledge required in this skill standard is that of an introductory nature.

#### Definitions:

*Aircraft* refers to both fixed wing aircraft and helicopters.

*Principles of aircraft flight* referred to in this skill standard are applied equally to fixed and rotary winged aircraft in level flight.

### Ngā momo whiwhinga | Grades available

Achieved

### Ihirangi waitohu | Indicative content

Major aircraft components

- Major components are those such as the fuselage, empennage, undercarriage, ailerons, flaps, vertical and horizontal stabilisers, elevator, rudder, trim tabs, wings or rotors, engine, and propellers.

## Principles of flight

- Newton's Laws of Motion.
- Major forces on flight include those such as lift, drag, gravity (weight), and thrust.
- Fluid dynamics.
- Primary controls that affect aircraft yaw, pitch, and roll through (aeroplane) pedals, yoke, and throttle (or helicopter) yaw pedals, cyclic, collective, and throttle.

## Rauemi | Resources

Where the following resources have been updated, please refer to the latest version:

- Babinsky, H, *How do wings work?*, Physics Education, November 2003 ([www3.eng.cam.ac.uk/outreach/Project-resources/Wind-turbine/howwingswork.pdf](http://www3.eng.cam.ac.uk/outreach/Project-resources/Wind-turbine/howwingswork.pdf)).
- Civil Aviation Authority, Good Aviation Practice – Pilot Practice booklets ([www.aviation.govt.nz/safety/safety-education-and-advice/education/good-aviation-practice-booklets/pilot-practice/](http://www.aviation.govt.nz/safety/safety-education-and-advice/education/good-aviation-practice-booklets/pilot-practice/)).
- Science Learning Hub, *Principles of flight* ([www.sciencelearn.org.nz/resources/299-principles-of-flight](http://www.sciencelearn.org.nz/resources/299-principles-of-flight)).

## Pārongo Whakaū Kounga | Quality assurance information

<b>Ngā rōpū whakatau-paerewa  </b> Standard Setting Body	Transport Industry Skills Board
<b>Whakaritenga Rārangi Paetae Aromatawai  </b> DASS classification	Service Sector > Aviation > Aviation - Core
<b>Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga  </b> CMR	0112

<b>Hātepe  </b> Process	<b>Putanga  </b> Version	<b>Rā whakaputa  </b> Review Date	<b>Rā whakamutunga mō te aromatawai  </b> Last date for assessment
<b>Rēhitatanga  </b> Registration	1	26 February 2026	N/A
<b>Kōrero whakakapinga  </b> Replacement information	This skill standard replaced unit standard 20677.		
<b>Rā arotake  </b> Planned review date	31 December 2030		

Please contact Transport Industry Skills Board at [qualifications@transportisb.nz](mailto:qualifications@transportisb.nz) to suggest changes to the content of this skill standard.