

**Topic: Aircraft design and different construction materials.**
**Aims:**

- To develop learners' vocabulary on the topic of aircraft metals and material.
- To develop learners' ability to describe and compare objects.
- To develop learners' vocabulary range of prepositions of place and prepositional phrases.
- To develop learners' ability to interact when hypothesising.

**Age group: 15yrs - 17yrs old**
**Level: B1.2 – B2 Intermediate**
**Time: 90mins approximately**
**Materials:**

1. Worksheets *Electricity and lightning: aircraft design*. You need one copy for each learner.
2. Describe the pictures cards. You need one copy for each learner.
3. Link to film *Electricity and lightning workshop: aircraft design*.

**Introduction:**

In this lesson, learners start by discussing the painting of, 'The Fall of Icarus' and two proverbs on flying. They are introduced to aircraft material vocabulary and compare a glider to an Airbus using their knowledge of the comparative form. They discuss what would happen if the respective aircraft were struck by lightning. They carry out an interactive activity describing images of aircraft being struck by lightning using prepositional phrases. Learners finish with a 'true/false' exercise to check their understanding of the lesson.

**Procedure:**

<b>1. Lead in</b> Discussion 10mins	<ul style="list-style-type: none"> <li>• The painting and the proverbs contextualise the lesson on flying safety and man's relationship to nature.</li> <li>• Ask learners to look at the painting by Rubens, 'The Fall of Icarus'. Elicit from the learners anything they know about the painting and the story of Icarus.</li> </ul> <p><b>Answer:</b> Painted by Rubens in 1636 in a Baroque style and based on the Greek mythology of Icarus who flew too close to the sun and melted the wax which held his wings together.</p> <p><a href="http://www.wikiart.org/en/peter-paul-rubens/the-fall-of-icarus">http://www.wikiart.org/en/peter-paul-rubens/the-fall-of-icarus</a></p> <ul style="list-style-type: none"> <li>• Proverb answers: 1) France. You must have the resources if you want to do something. 2) The Netherlands. You must be properly prepared and know what you're doing if you want to succeed.</li> </ul>
<b>2. Match</b> the definition with the aircraft material 10mins	<ul style="list-style-type: none"> <li>• Ask learners to first underline any words which they don't know in the definitions.</li> <li>• Give them strategies for comprehension: they should look at the words before and after the unknown word. What word class is it? (Adjective, verb, preposition). Do they know the word in another form? Eg: Conduct/conducting/conductive;</li> </ul>

<b>3. Vocabulary</b> Exchanging knowledge about aircraft 10mins	<ul style="list-style-type: none"> <li>In pairs. Learners look at the pictures of the Airbus and the glider and compare them, using the questions to guide their discussion. Circulate and monitor, checking learners' use of the comparative form. Take notes of any mistakes you hear. Once the learners have finished their exchange invite them to correct the errors that they see.</li> </ul>
<b>4. Describe and draw</b> Listening for precise information 20mins	<ul style="list-style-type: none"> <li>Put the learners into pairs. Give each learner a picture of one of the aircrafts from the 'describe' worksheet. Tell the learners that it is important not to let their partners see their pictures.</li> <li>Learners take turn to describe their picture to their partner, using the prepositional phrases and prepositions to structure their expression. Their partner draws the picture, based on their understanding of the oral description.</li> <li>Once they have both finished, learners compare their drawings to the original picture and see how well they have understood the description and the effect of lightning.</li> <li>The answer to 'what would happen to the respective aircraft?' is revealed through the pictures. <b>Answer:</b> the glider would burst into flames, but the Airbus would not.</li> </ul>
<b>Extra Activity: Hypothesising</b> Speaking 10mins	<ul style="list-style-type: none"> <li>Introduce the structure, <b>made of</b> and give an example: <i>the pen is made of plastic.</i></li> <li>Put learners in pairs to discuss and guess what the two respective aircrafts are made of and what might happen to them if they were struck by lightning. Encourage them to use the speaking frame to structure expression. Circulate and monitor, make notes of errors on board for feedback later.</li> </ul>
<b>5. Audio-visual comprehension</b> 10mins	<ul style="list-style-type: none"> <li>Ask the learners: <b>Why does the glider burst into flames when hit by lightning but the airbus does not?</b></li> <li>Elicit and board some responses.</li> <li><b>Play the film: <i>Electricity and lightning workshop: aircraft design</i></b></li> <li>Elicit the answer and compare to their previous responses, who was right?</li> <li>Learners listen again and complete the, True/False activity to consolidate understanding.</li> </ul>
<b>Homework</b>	<ul style="list-style-type: none"> <li>Prepare an anagram for the class to do in the next lesson, using a word from this lesson. Visit this site to help you: <a href="http://www.wordsmith.org/anagram/index.html">http://www.wordsmith.org/anagram/index.html</a></li> </ul>

**Describe.** Photocopy and cut out the pictures, give one image to each learner in their pairs.

