

GRADE 10 AVIATION TECHNOLOGY SCHEMES OF WORK FOR TERM 1

NAME OF THE TEACHER:.....

SCHOOL:..... YEAR:.....

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
1	1	1.0 Foundations of Aviation Technology	1.1 Introduction to Aviation Technology	By the end of the lesson, the learner should be able to explain the historical milestones in the development of aircraft.	1. What are the benefits of studying Aviation Technology? 2. Why is the history of Aviation important?	The learner is guided to search on the internet using digital devices to watch video clips on the key historical milestones in the evolution of Aviation Technology (hot air balloon, glider, fixed wing).	Digital devices, internet access, video clips on aviation history. <i>Ref: Curriculum Design 2024 ⁴</i>	Oral assessment Observation	
	2			By the end of the lesson, the learner should be able to relate the contribution of key pioneers to the development of aircraft.		The learner is guided to use charts to showcase the historical milestones and discuss contributions of pioneers like the Montgolfier brothers and George Cayley.	Charts showing aviation milestones. <i>Ref: Curriculum Design 2024 ⁵</i>	Written assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
	3			By the end of the lesson, the learner should be able to discuss the contribution of the Wright brothers and Igor Sikorsky to aviation.		The learner is guided to discuss the specific contributions of the Wright brothers and Igor Sikorsky to the development of aviation technology.	Digital devices, biographies of pioneers. <i>Ref: Curriculum Design 2024</i> ⁶	Oral assessment	
	4			By the end of the lesson, the learner should be able to categorise the types of aircraft in aviation.		The learner is guided to use visual aids and digital devices to search for information on various types of aircraft and develop a checklist.	Visual aids, digital devices. <i>Ref: Curriculum Design 2024</i> ⁷	Portfolio	
2	1			By the end of the lesson, the learner should be able to demonstrate lighter-than-air aircraft in aviation.		The learner is guided to use an inflated balloon to create lighter-than-air aircraft and use charts to categorize them.	Balloons, charts, string. <i>Ref: Curriculum Design 2024</i> ⁸	Observation	
	2			By the end of the lesson, the learner should be able to demonstrate heavier-than-air aircraft in aviation.		The learner is guided to construct a kite or a hand glider using locally available materials to create heavier-than-air aircraft.	Locally available materials (paper, sticks, glue). <i>Ref: Curriculum Design 2024</i> ⁹	Project assessment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
	3			By the end of the lesson, the learner should be able to evaluate the functions of different types of aircraft in aviation.		The learner is guided to brainstorm on the functions of different types of aircraft in aviation (e.g., transport, military, recreation).	Pictures of different aircraft types. <i>Ref: Curriculum Design 2024</i> ¹⁰	Oral assessment	
	4			By the end of the lesson, the learner should be able to appreciate the milestones of aircraft development in the aviation industry.		The learner is guided to tour a local aerodrome and observe different types of aircraft to appreciate development milestones.	Transport to local aerodrome. <i>Ref: Curriculum Design 2024</i> ¹¹	Field trip report	
3	1		1.2 Safety in the Aviation Workplace	By the end of the lesson, the learner should be able to explain the general rules related to personal safety in the aviation workplace.	1. Why is personal safety important in the aviation field? 2. What causes injuries in the aviation workplace?	The learner is guided to search for information on the internet to discuss the general rules relating to personal safety in the classroom and workshop.	Digital devices, internet access. <i>Ref: Curriculum Design 2024</i> ¹²	Written assignment	
	2			By the end of the lesson, the learner should be able to		The learner is guided to use visual aids and	Video clips on safety hazards, visual aids.	Oral assessment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				describe the hazards related to personal safety in the aviation environment.		watch video clips on the hazards to personal safety in the aviation workplace environment.	<i>Ref: Curriculum Design 2024</i> ¹³		
	3			By the end of the lesson, the learner should be able to classify common injuries related to safety in the aviation workplace.		The learner is guided to discuss common injuries (cuts, burns, scalds) and use a checklist to categorize them (minor, serious, fatal).	Checklist of injuries, charts. <i>Ref: Curriculum Design 2024</i> ¹⁴	Written assignment	
	4			By the end of the lesson, the learner should be able to identify the contents of a first aid kit.		The learner is guided to use realia to identify and list the contents of a first aid kit.	Realia: Fully equipped First Aid Kit. <i>Ref: Curriculum Design 2024</i> ¹⁵	Observation	
4	1			By the end of the lesson, the learner should be able to perform first aid procedures for cuts and burns.		The learner is guided to role-play the first aid procedures on the handling of cuts and burns related to safety in the workplace.	First aid kit, bandages. <i>Ref: Curriculum Design 2024</i> ¹⁶	Observation	
	2			By the end of the lesson, the learner should be able to		The learner is guided to role-play the first aid	First aid materials, splints.	Observation	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				perform first aid procedures for fractures and electric shock.		procedures on the handling of fractures and electric shock injuries.	<i>Ref: Curriculum Design 2024</i> ¹⁷		
	3			By the end of the lesson, the learner should be able to perform Cardiopulmonary Resuscitation (CPR).		The learner is guided to discuss and role-play the first aid procedures for CPR.	Mannequin or mat for CPR simulation. <i>Ref: Curriculum Design 2024</i> ¹⁸	Practical assessment	
	4			By the end of the lesson, the learner should be able to observe safety practices in an aviation workplace.		The learner is guided to visit a local aerodrome and observe the actual safety practices in the aviation workplace.	Transport to aerodrome. <i>Ref: Curriculum Design 2024</i> ¹⁹	Field trip report	
5	1			By the end of the lesson, the learner should be able to appreciate the role of safety in the aviation workplace.		The learner is guided to engage with a resource person on the importance of safety in the aviation workplace.	Resource person (Aviation safety officer). <i>Ref: Curriculum Design 2024</i> ²⁰	Oral assessment	
	2		1.3 Airport Safety	By the end of the lesson, the learner should be able to explain the safety measures in the	1. Why is safety important in an airport?	The learner is guided to search the internet for information and discuss the safety	Digital devices, internet access.	Written assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				landside area of an airport.	2. How can one promote safety in an airport?	measures in the landside area.	<i>Ref: Curriculum Design 2024</i> ²¹		
	3			By the end of the lesson, the learner should be able to explain the safety measures in the airside area of an airport.		The learner is guided to use visual aids and video clips to explore the safety measures in the airside area.	Video clips of airside operations. <i>Ref: Curriculum Design 2024</i> ²²	Oral assessment	
	4			By the end of the lesson, the learner should be able to explain the safety measures in the terminal area of an airport.		The learner is guided to discuss the safety measures specific to the terminal area of an airport.	Pictures of airport terminals. <i>Ref: Curriculum Design 2024</i> ²³	Written assignment	
6	1			By the end of the lesson, the learner should be able to classify mandatory safety signs in an airport.		The learner is guided to use aviation books to discuss and draw mandatory safety signs found in airports.	Aviation books, drawing materials. <i>Ref: Curriculum Design 2024</i> ²⁴	Portfolio	
	2			By the end of the lesson, the learner should be able to classify prohibition safety signs in an airport.		The learner is guided to use charts to categorize prohibition safety signs in the main areas of the airport.	Charts of safety signs. <i>Ref: Curriculum Design 2024</i> ²⁵	Observation	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
	3			By the end of the lesson, the learner should be able to classify information safety signs in an airport.		The learner is guided to undertake drawing and preparation of a gallery walk to classify information safety signs.	Manilla papers, marker pens. <i>Ref: Curriculum Design 2024</i> ²⁶	Gallery walk	
	4			By the end of the lesson, the learner should be able to describe the general safety rules related to movement in the landside area.		The learner is guided to discuss the general safety rules related to movement in the landside area of an airport.	Aviation manuals/literature. <i>Ref: Curriculum Design 2024</i> ²⁷	Written assignment	
7	1			By the end of the lesson, the learner should be able to describe the general safety rules related to movement in the airside and terminal areas.		The learner is guided to discuss the general safety rules related to movement in the airside and terminal areas.	Aviation manuals/literature. <i>Ref: Curriculum Design 2024</i> ²⁸	Oral assessment	
	2			By the end of the lesson, the learner should be able to demonstrate general entry safety measures in an airport.		The learner is guided to role-play the general entry safety measures in an airport using locally available resources.	Locally available resources for simulation. <i>Ref: Curriculum Design 2024</i> ²⁹	Observation	
	3			By the end of the lesson, the learner should be able to		The learner is guided to role-play the general exit	Locally available resources for simulation.	Observation	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				demonstrate general exit safety measures in an airport.		safety measures in an airport using locally available resources.	<i>Ref: Curriculum Design 2024</i> ³⁰		
	4			By the end of the lesson, the learner should be able to appreciate the careers related to safety in an airport.		The learner is guided to visit a local aerodrome to observe activities of career personnel related to safety in an airport.	Transport to aerodrome. <i>Ref: Curriculum Design 2024</i> ³¹	Field trip report	
8	1	2.0 Aircraft Basic Construction	2.1 Aircraft Components	By the end of the lesson, the learner should be able to explain the functions of the fuselage and wing.	1. Why does an aircraft have different parts? 2. Why are some aircrafts regarded as lighter-than-air?	The learner is guided to search on the internet for information on the functions of the fuselage and wing.	Digital devices, internet access. <i>Ref: Curriculum Design 2024</i> ³²	Written assignment	
	2			By the end of the lesson, the learner should be able to explain the functions of the empennage and landing gear.		The learner is guided to use audio visual devices to identify and discuss the functions of the empennage and landing gear.	Audio visual devices. <i>Ref: Curriculum Design 2024</i> ³³	Oral assessment	
	3			By the end of the lesson, the learner should be able to		The learner is guided to discuss the functions of the	Charts showing aircraft engines/rotors.	Written assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				explain the functions of the power plant, main rotor, and tail rotor.		power plant, main rotor, and tail rotor.	<i>Ref: Curriculum Design 2024</i> ³⁴		
	4			By the end of the lesson, the learner should be able to illustrate the fixed wing parts of an aircraft.		The learner is guided to use freehand sketches to illustrate the major parts of a fixed wing aircraft and present to class.	Drawing papers, pencils. <i>Ref: Curriculum Design 2024</i> ³⁵	Portfolio	
9	1			By the end of the lesson, the learner should be able to illustrate the rotary wing parts of an aircraft.		The learner is guided to use freehand sketches to illustrate the major parts of a rotary wing aircraft.	Drawing papers, pencils. <i>Ref: Curriculum Design 2024</i> ³⁶	Portfolio	
	2			By the end of the lesson, the learner should be able to model a heavier-than-air aircraft (Preparation).		The learner is guided to collect locally available materials to create a model of a heavier-than-air aircraft.	Locally available materials (cardboard, plastic). <i>Ref: Curriculum Design 2024</i> ³⁷	Observation	
	3			By the end of the lesson, the learner should be able to model a heavier-than-air aircraft (Construction).		The learner is guided to use locally available materials to construct the	Collected materials, adhesives, cutting tools.	Project assessment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
						model of the aircraft.	<i>Ref: Curriculum Design 2024</i> ³⁸		
	4			By the end of the lesson, the learner should be able to appreciate the role of different parts in the operation of an aircraft.		The learner is guided to engage with a resource person on the role of different parts in the operation of an aircraft.	Resource person (Aircraft technician/pilot). <i>Ref: Curriculum Design 2024</i> ³⁹	Oral assessment	
10	1		2.2 Aircraft Tools and Materials	By the end of the lesson, the learner should be able to explain the properties of metals used in aircraft construction.	1. How do the properties of materials influence aircraft construction? 2. Why are tools and materials important in aircraft construction?	The learner is guided to search on the internet for information on the categories of aircraft materials (metals) and their properties.	Digital devices, internet access. <i>Ref: Curriculum Design 2024</i> ⁴⁰	Written assignment	
	2			By the end of the lesson, the learner should be able to explain the properties of non-metals used in aircraft construction.		The learner is guided to brainstorm on the properties of aircraft materials (non-metals) in workshop practice.	Samples of non-metal materials. <i>Ref: Curriculum Design 2024</i> ⁴¹	Oral assessment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
	3			By the end of the lesson, the learner should be able to investigate the physical properties of aircraft materials.		The learner is guided to perform experiments to investigate the physical properties of aircraft materials used in construction.	Assorted aircraft materials for testing. <i>Ref: Curriculum Design 2024</i> ⁴²	Observation	
	4			By the end of the lesson, the learner should be able to investigate the mechanical properties of aircraft materials.		The learner is guided to perform experiments to investigate the mechanical properties of aircraft materials.	Assorted aircraft materials. <i>Ref: Curriculum Design 2024</i> ⁴³	Observation	
11	1			By the end of the lesson, the learner should be able to describe the functions of non-powered aircraft tools.		The learner is guided to use charts to categorise non-powered aircraft tools in construction.	Charts of tools. <i>Ref: Curriculum Design 2024</i> ⁴⁴	Written assignment	
	2			By the end of the lesson, the learner should be able to describe the functions of powered aircraft tools.		The learner is guided to use charts to categorise powered aircraft tools in construction.	Charts/Pictures of power tools. <i>Ref: Curriculum Design 2024</i> ⁴⁵	Written assignment	
	3			By the end of the lesson, the learner should be able to group aircraft tools		The learner is guided to use realia to group the tools for aircraft	Realia: Various workshop tools.	Observation	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				by function (cutting and striking).		construction according to functions (cutting, striking).	<i>Ref: Curriculum Design 2024</i> ⁴⁶		
	4			By the end of the lesson, the learner should be able to group aircraft tools by function (holding, marking, measuring).		The learner is guided to use realia to group the tools for aircraft construction according to functions (holding, marking, measuring).	Realia: Various workshop tools. <i>Ref: Curriculum Design 2024</i> ⁴⁷	Observation	
12	1			By the end of the lesson, the learner should be able to describe safety precautions in the use of aircraft tools.		The learner is guided to use digital devices to discuss the safety precautions observed in the use of tools and materials.	Digital devices. <i>Ref: Curriculum Design 2024</i> ⁴⁸	Oral assessment	
	2			By the end of the lesson, the learner should be able to demonstrate the safe use of tools and materials.		The learner is guided to demonstrate the safe use of tools and materials in aircraft construction.	Workshop tools and materials. <i>Ref: Curriculum Design 2024</i> ⁴⁹	Observation	
	3			By the end of the lesson, the learner should be able to maintain tools in		The learner is guided to practice care and maintenance of the tools and materials	Cleaning materials, lubricants.	Observation	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				aircraft construction.		in aircraft construction.	<i>Ref: Curriculum Design 2024</i> ⁵⁰		
	4			By the end of the lesson, the learner should be able to appreciate the use of tools and materials in aircraft construction.		The learner is guided to participate in an excursion to an aircraft maintenance organisation.	Transport to maintenance facility. <i>Ref: Curriculum Design 2024</i> ⁵¹	Field trip report	
13	1		TERM 1 ASSESSMENT	By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 concepts.		Administration of End of Term 1 Written Assessment.	Assessment papers.	Written test	
	2			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 concepts.		Administration of End of Term 1 Written Assessment.	Assessment papers.	Written test	
	3		CLOSING	By the end of the lesson, the learner should be able to reflect on Term 1 performance.		Reviewing assessment and closing for the holiday.		QA / Reflection	
	4			By the end of the lesson, the learner should be able to reflect on Term 1 performance.		Reviewing assessment and closing for the holiday.		QA / Reflection	