SCIENCE AND TECHNOLOGY SCHEME OF WORK GRADE 4 TERM ONE

NAME	
TSC NO.	
SCHOOL	

SCIENCE AND TECHNOLOGY SCHEME OF WORK GRADE 4 TERM ONE

Week	Lesson	Strand	Sub strand	Specific learning outcomes	Key inquiry questions	Learning Experiences	Learning resources	Assessment	Remarks
1	1	**Living things**	**Plants** **Characteristics of plants.**	By the end of the sub strand the learner should be able to: Identify living and non- living things in the environment	What makes plants living things?	Learners take a walk in the school compound and the neighbourhood to observe, discuss and record evidence that plants: feed, grow, breathe, reproduce, remove waste, move, respond to changes in their environment and die.	KLB Visionary Science and Technology Grade 4 pg 1-3 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	2	**Living things**	**Plants** **Characteristics of plants.**	By the end of the sub strand the learner should be able to: Identify the characteristics of plants as living things	What makes plants living things?	Learners take a walk in the school compound and the neighbourhood to observe, discuss and record evidence that plants: feed, grow, breathe, reproduce,	KLB Visionary Science and Technology Grade 4 pg 4-5 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real		

						remove waste, move, respond to changes in their environment and die.	assorted plants		
	3	**Living things**	**Plants** **Characteristics of plants.**	By the end of the sub strand the learner should be able to: Observe characteristics of plants in the environment	What makes plants living things?	Learners use digital devices to observe, discuss and record evidence that plants: feed, grow, breathe, reproduce, remove waste materials, move, respond to changes in their environment and die	KLB Visionary Science and Technology Grade 4 pg 5 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	4	**Living things**	**Plants** **Characteristics of plants.**	By the end of the sub strand the learner should be able to: Demonstrate responsibility while handling plants	What makes plants living things?	Learners use digital devices to observe, discuss and record evidence that plants: feed, grow, breathe, reproduce, remove waste materials, move, respond to changes in their environment and die	KLB Visionary Science and Technology Grade 4 pg 6 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
2	1	**Living things**	**Plants** **Characteristi cs of plants**	By the end of the sub strand the learner should be	What makes plants	In groups, learners are guided to	KLB Visionary Science and Technology		

			cs of plants.	able to: Grow some plants found in the locality	living things?	observe safety precautions when handling plants (Examples: practise use of gloves, forceps, goggles, tongs, overcoats)	Grade 4 pg 7 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	2	Living things	Animals Characteristics of animals.	By the end of the sub strand the learner should be able to: Identify the characteristics of animals as living things.	What makes animals living things?	Learners take a walk in the school compound and the neighborhood to observe, discuss and record evidence that animals: feed, grow, breathe, reproduce, remove waste, move, respond to changes in their environment and die.	KLB Visionary Science and Technology Grade 4 pg 8 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		
	3	Living things	Animals Characteristics of animals.	By the end of the sub strand the learner should be able to: Identify the characteristics of animals as living things.	What makes animals living things?	Learners take a walk in the school compound and the neighborhood to observe, discuss and record evidence that animals: feed,	KLB Visionary Science and Technology Grade 4 pg 9 Gloves, forceps, goggles, tongs, overcoats, videos, digital		

						grow, breathe, reproduce, remove waste, move, respond to changes in their environment and die.	devices, internet, textbooks, assorted animals		
	4	**Living things**	**Animals** **Characteristics of animals.**	By the end of the sub strand the learner should be able to: Observe characteristics of animals in their environment	Which ways do animals differ from each other	Learners take a walk in the school compound and the neighborhood to observe, discuss and record evidence that animals: feed, grow, breathe, reproduce, remove waste, move, respond to changes in their environment and die.	KLB Visionary Science and Technology Grade 4 pg 10-11 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		
3	1	**Living things**	**Animals** **Characteristics of animals.**	By the end of the sub strand the learner should be able to: Observe characteristics of animals in the r environment	Which ways do animals differ from each other	Learners use digital devices to observe, discuss and record evidence that animals: feed, grow, breathe, reproduce, remove waste materials, move, respond to changes in their environment and die In groups, learners discuss	KLB Visionary Science and Technology Grade 4 pg 16-17 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		

					the main difference between vertebrates and invertebrates.			
	2	Living things	**Animals** **Characteristics of animals.**	By the end of the sub strand the learner should be able to: Distinguish between vertebrates and invertebrates	Which ways do animals differ from each other	Learners use digital devices to observe, discuss and record evidence that animals: feed, grow, breathe, reproduce, remove waste materials, move, respond to changes in their environment and die In groups, learners discuss the main difference between vertebrates and invertebrates.	KLB Visionary Science and Technology Grade 4 pg 20-22 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		
	3	Living things	**Animals** **Characteristics of animals.**	By the end of the sub strand the learner should be able to: Distinguish between vertebrates and invertebrates	Which ways do animals differ from each other	In groups, learners are guided to observe safety precautions when handling animals (Examples: practise use of	KLB Visionary Science and Technology Grade 4 pg 20-22 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet,		

Week	Lesson	Strand	Sub Strand	Specific Learning Outcomes	Key Inquiry Question	Learning Experiences	Learning Resources	Assessment	Reflection
						gloves, forceps, goggles, tongs, overcoats)	textbooks, assorted animals		
	4	Living things	Animals Characteristics of animals.	By the end of the sub strand the learner should be able to: Demonstrate responsibility while handling animals	Which ways do animals differ from each other	In groups, learners are guided to observe safety precautions when handling animals (Examples: practise use of gloves, forceps, goggles, tongs, overcoats)	KLB Visionary Science and Technology Grade 4 pg 20-22 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		
4	1	Living things	Animals Characteristics of animals.	Demonstrate responsibility while handling animals	Which ways do animals differ from each other	In groups, learners are guided to observe safety precautions when handling animals (Examples: practise use of gloves, forceps, goggles, tongs, overcoats)	KLB Visionary Science and Technology Grade 4 pg 20-22 Gloves, forceps, goggles, tongs, overcoats, videos, digital devices, internet, textbooks, assorted animals		
	2	Living things	Human body system Digestive	By the end of the sub strand the learner should be able to: Identify parts of the	How are the different parts of	In groups, learners are guided to use digital devices and visual aids to observe and	KLB Visionary Science and Technology Grade 4 pg 23-24		

			system	digestive system	the digestive system suited to their functions?	identify parts of the digestive system (mouth, teeth, esophagus, stomach, small intestines, liver, pancreas, large intestines, rectum, anus	Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	3	**Living things**	Human body system Digestive system	By the end of the sub strand the learner should be able to: Identify parts of the digestive system	How are the different parts of the digestive system suited to their functions?	In groups, learners are guided to use digital devices and visual aids to observe and identify parts of the digestive system (mouth, teeth, esophagus, stomach, small intestines, liver, pancreas, large intestines, rectum, anus	KLB Visionary Science and Technology Grade 4 pg 23-24 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	4	**Living things**	Human body system Digestive system	By the end of the sub strand the learner should be able to: Identify parts of the digestive system	How are the different parts of the digestive system suited to their functions?	In groups, learners are guided to use digital devices and visual aids to observe and identify parts of the digestive system (mouth, teeth, esophagus, stomach, small intestines, liver, pancreas, large intestines, rectum,	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real		

						anus	assorted plants		
5	1	Living things	Human body system Digestive system	By the end of the sub strand the learner should be able to: Identify parts of the digestive system	How are the different parts of the digestive system suited to their functions?	In groups, learners are guided to use digital devices and visual aids to discuss the functions of parts of the digestive system (the mouth, oesophagus, stomach, small intestines, large intestines, rectum, anus)	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	2	Living things	Human body system	By the end of the sub strand the learner should be able to: Describe functions of the different parts of the digestive system	How are the different parts of the digestive system suited to their functions?	In groups, learners are guided to use digital devices and visual aids to discuss the functions of parts of the digestive system (the mouth, oesophagus, stomach, small intestines, large	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real		

						intestines, rectum, anus)	assorted plants	
	3	**Living things**	**Digestive system**	By the end of the sub strand the learner should be able to: Describe functions of the different parts of the digestive system	How are the different parts of the digestive system suited to their functions ?	In groups, learners are guided to use digital devices and visual aids to discuss the functions of parts of the digestive system (the mouth, oesophagus, stomach, small intestines, large intestines, rectum, anus)	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		

	4	Living things	Human body system	By the end of the sub strand the learner should be able to: Describe functions of the different parts of the digestive system	How are the different parts of the digestive system suited to their functions?	In groups, learners are guided to use digital devices and visual aids to discuss the functions of parts of the digestive system (the mouth, oesophagus, stomach, small intestines, large intestines, rectum, anus)	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
6	1	Living things	Human body system	By the end of the sub strand the learner should be able to: Develop curiosity about taking care of the teeth	How do teeth differ?	In groups learners are guided to draw/model the four types of teeth using locally available materials	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree		

							nurseries, real assorted plants		
	2	**Living things**	**Digestive system**	By the end of the sub strand the learner should be able to: Develop curiosity about taking care of the teeth	How do teeth differ?	In groups learners are guided to draw/model the four types of teeth using locally available materials	KLB Visionary Science and Technology Grade 4 pg 24-25 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	3	**Living things**	**Human body system**	By the end of the sub strand the learner should be able to: Model the four different types of teeth.	How do teeth differ?	In groups learners are guided to draw/model the four types of teeth using locally available materials	KLB Visionary Science and Technology Grade 4 pg 27-28 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	4	**Living things**	**Digestive system**	By the end of the sub strand the learner should be able to: Model the four different types of	How do teeth differ?	In groups learners are guided to draw/model the four types of teeth using locally available materials	KLB Visionary Science and Technology Grade 4 pg 27-28 Protective		

				teeth.			clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
7	**1**	**Living things**	**Human body system**	By the end of the sub strand the learner should be able to: Model the four different types of teeth.	How do teeth differ?	In groups learners are guided to draw/model the four types of teeth using locally available materials	KLB Visionary Science and Technology Grade 4 pg 31-32 Protective clothing, gloves, forceps, goggles, tongs, overcoats videos, digital devices, internet, textbooks, tree nurseries, real assorted plants		
	2	**Environ ment**	**Air Pollution**	By the end of the sub strand the learner should be able to: State the meaning of the terms "pollution" and "air pollution	What causes air pollution ?	In groups, learners are guided to discuss the meaning of the terms "pollution" and "air pollution	KLB Visionary Science and Technology Grade 4 pg 37-Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
	3	**Environ ment**	**Air Pollution**	By the end of the sub strand the learner	What causes air	Learners to be guided as they use visual aids and	KLB Visionary Science and Technology		

				should be able to: State the meaning of the terms "pollution" and "air pollution	pollution ?	digital devices to explore the meaning of "pollution" and "air pollution	Grade 4 pg 37 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
	4	**Environment**	**Air Pollution**	By the end of the sub strand the learner should be able to: Identify air pollutants in his/her environment	What causes air pollution ?	In groups, learners walk around the school and neighbourhood to observe, identify and record air pollutants (bad smell, dust, smoke). Learners to be guided as they use visual aids and digital devices to identify and record air pollutants.	KLB Visionary Science and Technology Grade 4 pg 40-41 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
8	1	**Environment**	**Air Pollution**	By the end of the sub strand the learner should be able to: Identify air pollutants in his/her environment	What causes air pollution ?	In groups, learners walk around the school and neighbourhood to observe, identify and	KLB Visionary Science and Technology Grade 4 pg 40-41 Dust masks, goggles,		

						record air pollutants (bad smell, dust, smoke). Learners to be guided as they use visual aids and digital devices to identify and record air pollutants.	overcoats, piece of white cloth, digital devices, internet, textbooks		
	2	**Environ ment**	**Air Pollution**	By the end of the sub strand the learner should be able to: Distinguish between clean and polluted air in his/her environment	What causes air pollution ?	In groups, learners walk around the school and neighbourhood to observe, identify and record air pollutants (bad smell, dust, smoke). a) Learners to be guided as they use visual aids and digital devices to identify and record air pollutants.	KLB Visionary Science and Technology Grade 4 pg 42-44 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		

	3	**Environment**	**Air Pollution**	By the end of the sub strand the learner should be able to: Distinguish between clean and polluted air in his/her environment	What are the effects of air pollution?	In groups, learners walk around the school and neighbourhood to observe and identify clean and polluted air (toilets, dusty area, smoky areas and decomposing matter). Learners to be guided as they use visual aids and digital devices to differentiate between clean and polluted air	KLB Visionary Science and Technology Grade 4 pg 42-44 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
	4	**Environment**	**Air Pollution**	By the end of the sub strand the learner should be able to: Identify effects of air pollution on living things	What are the effects of air pollution?	In groups, learners walk around the school and neighbourhood to observe and identify clean and polluted air (toilets, dusty area, smoky areas and decomposing matter). Learners to be guided as they use visual aids and digital devices to differentiate between clean and	KLB Visionary Science and Technology Grade 4 pg 44-45 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		

						polluted air			
9	1	Environ ment	Air Pollution	By the end of the sub strand the learner should be able to: Identify effects of air pollution on living things	What are the effects of air polluti on?	In groups, learners walk around the school and neighborhood to observe, identify and record the effects of air pollution on living things (breathing problems, irritation of eyes, visibility	KLB Visionary Science and Technology Grade 4 pg 46-47 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
	2	Environ ment	Air Pollution	By the end of the sub strand the learner should be able to: Appreciate the importance of clean air in his/her environment	How can you reduce air pollution?	In groups, learners walk around the school and neighbourhood to observe, identify and record the effects of air pollution on living things (breathing problems, irritation of eyes, visibility and growth of plants) In groups, learners to use visual aids and digital devices to identify the effects of air pollution on living	KLB Visionary Science and Technology Grade 4 pg 46-47 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		

						things		
	3	Environ ment	Air Pollution	By the end of the sub strand the learner should be able to: Appreciate the importance of clean air in his/her environment	How can you reduce air pollution?	In groups, learners walk around the school and neighbourhood to observe, identify and record the effects of air pollution on living things (breathing problems, irritation of eyes, visibility and growth of plants) In groups, learners to use visual aids and digital devices to identify the effects of air pollution on living things	KLB Visionary Science and Technology Grade 4 pg 46-47 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		
	4	Environ ment	Air Pollution	By the end of the sub strand the learner should be able to: Identify ways of reducing air pollution.	How can you reduce air pollution?	Learners are guided to identify and discuss ways of reducing air pollution (proper disposal of waste; Ventilation; Use of Ventilation Improved Pit	KLB Visionary Science and Technology Grade 4 pg 48-50 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet,		

						latrines; sprinkling ash in pit latrines; Sprinkling water on dusty grounds). In groups, learners are guided to observe safety precautions when working in air polluted environment (Example: practise use of dust masks, goggles, overcoats	textbooks		
10	1	Environment	Air Pollution	By the end of the sub strand the learner should be able to: Make a functional air pollution detector	How can you reduce air pollution?	Learners are guided to identify and discuss ways of reducing air pollution (proper disposal of waste; Ventilation; Use of Ventilation Improved Pit latrines; sprinkling ash in pit latrines; Sprinkling water on dusty grounds).	KLB Visionary Science and Technology Grade 4 pg 48-50 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		

						In groups, learners are guided to observe safety precautions when working in air polluted environment (Example: practise use of dust masks, goggles, overcoats			
	2	Environment	Air Pollution	By the end of the sub strand the learner should be able to: Make a functional dust mask using locally available materials.	How can you reduce air pollution?	Learners are guided to identify and discuss ways of reducing air pollution (proper disposal of waste; Ventilation; Use of Ventilation Improved Pit latrines; sprinkling ash in pit latrines; Sprinkling water on dusty grounds). In groups, learners are guided to observe safety precautions when working in air	KLB Visionary Science and Technology Grade 4 pg 48-50 Dust masks, goggles, overcoats, piece of white cloth, digital devices, internet, textbooks		

						polluted environment (Example: practise use of dust masks, goggles, overcoats		
	3	Environ ment	Water Pollution	By the end of the sub strand the learner should be able to: State the meaning of the term "water pollution	What causes water pollution?	In groups, learners are guided to discuss the meaning of the term "water pollution". Learners to be guided as they use visual aids and digital devices to explore the meaning of the term "water pollution	KLB Visionary Science and Technology Grade 4 pg 54-55 Gumboots, gloves, digital devices digital devices, internet, textbook		
	4	Environ ment	Water Pollution	By the end of the sub strand the learner should be able to: Identify water pollutants in his/her environment	What causes water pollution?	In groups, learners are guided to discuss the meaning of the term "water pollution". Learners to be guided as they use visual aids and digital devices to explore the meaning of the	KLB Visionary Science and Technology Grade 4 pg 56-57 Gumboots, gloves, digital devices digital devices, internet, textbook		

						term "water pollution			
11	**1**	**Environ ment**	**Water Pollution**	By the end of the sub strand the learner should be able to: Identify water pollutants in his/her environment	What causes water pollution?	In groups, learners walk around the school and neighbourhood to observe, identify and record water pollutants (soil and waste). Learners to be guided as they use visual aids and digital devices to observe, identify and record water pollutants	KLB Visionary Science and Technology Grade 4 pg 56-57 Gumboots, gloves, digital devices digital devices, internet, textbook		
	2	**Environ ment**	**Water Pollution**	By the end of the sub strand the learner should be able to: Distinguish between clean and polluted water in his/her environment.	What causes water pollution?	In groups, learners walk around the school and neighbourhood to observe, identify and record water pollutants (soil and waste). Learners to be guided as they use visual aids and digital devices to	KLB Visionary Science and Technology Grade 4 pg 57-58 Gumboots, gloves, digital devices digital devices, internet, textbook		

						observe, identify and record water pollutants			
	3	**Environ ment**	**Water Pollution**	By the end of the sub strand the learner should be able to: Identify effects of water pollution on living things	What are the effects of water pollution?	In groups, learners walk around the school and neighbourhood to observe and identify clean and polluted water (water in a pit, open pools, ponds, rivers, sewers and watering troughs).	KLB Visionary Science and Technology Grade 4 pg 59 Gumboots, gloves, digital devices digital devices, internet, textbook		
	4	**Environ ment**	**Water Pollution**	By the end of the sub strand the learner should be able to: Identify effects of water pollution on living things	What are the effects of water pollution?	In groups, learners walk around the school and neighbourhood to observe and identify clean and polluted water (water in a pit, open pools, ponds, rivers, sewers and watering troughs).	KLB Visionary Science and Technology Grade 4 pg 60-61 Gumboots, gloves, digital devices digital devices, internet, textbook		
12	1	**Environ ment**	**Water Pollution**	By the end of the sub strand the learner should be able to: Appreciate the importance of clean	What are the effects of water pollution?	Learners to be guided as they use visual aids and digital devices to differentiate between clean and	KLB Visionary Science and Technology Grade 4 pg 60-61 Gumboots,		

				water in his/her environment		polluted water	gloves, digital devices digital devices, internet, textbook		
	2	Environment	Water Pollution	By the end of the sub strand the learner should be able to: Identify ways of reducing water pollution.	How can water pollution be reduced?	Learners to be guided as they use visual aids and digital devices to differentiate between clean and polluted water	KLB Visionary Science and Technology Grade 4 pg 62- Gumboots, gloves, digital devices digital devices, internet, textbook		
	3	Environment	Water Pollution	By the end of the sub strand the learner should be able to: Make a functional water filter using locally available materials	How can water pollution be reduced?	In groups, learners walk around the school and neighbourhood to observe, identify and record the effects of water pollution on living things (waterborne diseases, death of plants and animals that live in water). In groups, learners to use visual aids and digital devices to identify the effects of water pollution	KLB Visionary Science and Technology Grade 4 pg 63- 66 Gumboots, gloves, digital devices digital devices, internet, textbook		

	4	Environ ment	Water Pollution	By the end of the sub strand the learner should be able to: Make a functional water filter using locally available materials	How can water pollution be reduced?	In groups, learners walk around the school and neighbourhood to observe, identify and record the effects of water pollution on living things (waterborne diseases, death of plants and animals that live in water). In groups, learners to use visual aids and digital devices to identify the effects of water pollution	KLB Visionary Science and Technology Grade 4 pg 63-66 Gumboots, gloves, digital devices digital devices, internet, textbook		
13-14				**CONTINOUS ASSESSMENT TEST**				**13-14**	