Grade Four

Agriculture Scheme of Work

Term	One	Year	School
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Wee k	Ls n	Strand/Theme	Sub Strand	Specific learning outcomes	Key inquiry Questions	Learning experiences	Learning Resources	Assessmen t methods	Refl
1	1	Conserving The Environment	Soil Soil Particles	By the end of the sub strand the learner should be able to: a) Distinguish types of soil based on particle sizes b) Investigate the ability of different types of soil to hold water c) Relate particle sizes to ability of soil to hold water d) Develop curiosity in investigating physical properties of different types of soil.	How can we determine the ability of different soils to hold water?	Learners to collect soil samples from their local environment. In groups, learners to conduct experiment to observe particle sizes of different soils (sand, clay and loam) using a sieve.	Soil samples - Sand - Clay - Loam	Short answers, project, group discussions	
	2		Soil Soil Particles		 Learners to share experiences on observations made in the experiment on particle sizes of different soils to hold water? In groups, learners to conduct experiment to observe ability of soils to hold water (sand, clay and loam) using porous containers (containers with small holes at the base). 	Soil samples - Sand - Clay - Loam	Short answers, project, group discussions		
	3		Soil Soil Particles		How can we determine the ability of different soils to hold water?	 Learners to share experiences on observations made in the experiment on ability of soil to hold water. Learners to relate particle sizes to ability of soil to hold water. 	Soil samples - Sand - Clay - Loam	Short answers, project, group discussions	
	1		Uses Of Soil In Farming	By the end of the sub strand the learner should be able to: a) Determine the ability of different soils to hold water b) Explain the uses of sand, loam and clay in farming	How can we use sand, clay and loam soils in farming?	Learners visit nearby farms and explore the uses of different types of soil. In groups, learners discuss ability of sand, clay and loam to hold water.	A sieve Containers with small holes at the base Water	Short answers, project, group discussions	
2	2		Uses Of Soil In Farming	 c) Appreciate the relationship between water holding capacity of clay, sand and loam soils to their uses. 	How can we use sand, clay and loam soils in farming?	Learners visit nearby farms and explore the uses of different types of soil. In groups, learners discuss ability of sand, clay and loam to hold water.	A sieve Containers with small holes at the base Water	Short answers, project, group discussions	
	3		Uses Of Soil In Farming		How can we use sand, clay and loam soils in farming?	 Learners to watch a video clip on crops growing on different types of soil (sand, clay and loam). In groups, learners to discuss the uses of soils (loam, sand and clay) in farming. 	A sieve Containers with small holes at the base Water	Short answers, project, group discussions	

	1	Compost Manure	By the end of the sub strand the learner should be able to: a) Identify suitable materials for making compost manure b) Prepare compost manure for farming c) Explain the meaning of compost manure for farming	What is compost manure What can we use to prepare compost manure? How can we make compost manure using the heap method?	Learners observe stimulus materials such as video, photos, and pictures on preparation and use of compost manure using compost heap method	Organic material animals)	Short answers, project, group discussions
3	2	Compost Manure	 d) Appreciate importance of compost manure in farming. b) Prepare compost manure for farming c) Explain the meaning of compost manure for farming 	What is compost manure What can we use to prepare compost manure? How can we make compost manure using the heap method?	Learners to collect suitable materials for making compost manure. In groups, learners to prepare compost manure using heap method.	Organic materials for composting (farm waste from crops and animals)	Short answers, project, group discussions
	3	Compost Manure	d) Appreciate importance of compost manure in farming.	What is compost manure What can we use to prepare compost manure? How can we make compost manure using the heap method?	 In groups, learners discuss the meaning of compost manure. Learners practice the learnt skills in making compost manure in kitchen garden at home. 		Short answers, project, group discussions
4	1	Uses Of Water In Farming	By the end of the sub strand the learner should be able to: a) Water plants and domestic animals in the immediate environment b) Identify different uses of water in farming c) Appreciate importance of water in farming.	What are the uses of water in farming?	 In groups, learners to make various Agricultural uses of water in school (watering flower beds, plants, seed bed and watering animals). Learners to visit the neighbouring farms to observe how water is used for farming purposes. 	Assorted containers - Bottles - Jerricans - Buckets - Wooden boxes - Used tyres - Baskets	Short answers, project, group discussions
4	2	Uses Of Water In Farming	By the end of the sub strand the learner should be able to: a) Water plants and domestic animals in the immediate environment b) Identify different uses of water in farming c) Appreciate importance of water in farming.	What are the uses of water in farming?	 In groups, learners to make various Agricultural uses of water in school (watering flower beds, plants, seed bed and watering animals). Learners to visit the neighbouring farms to observe how water is used for farming purposes. 	Assorted containers - Bottles - Jerricans - Buckets - Wooden boxes - Used tyres - Baskets	Short answers, project, group discussions

	3	Uses Of Water In Farming	By the end of the sub strand the learner should be able to: a) Water plants and domestic animals in the immediate environment b) Identify different uses of water in farming c) Appreciate importance of water in farming.	What are the uses of water in farming?	Learners to observe a video clip on uses of water in the farm. In pairs, learners to brainstorm or share experiences on uses of water in the farm for agricultural activities.	Assorted containers - Bottles - Jerricans - Buckets - Wooden boxes - Used tyres - Baskets	Short answers, project, group discussions
	1	Water Conservation In Farming	By the end of the sub strand the learner should be able to: a) Carry out drip irrigation to water plants b) Describe drip irrigation as a way of conserving water	What are the different ways drip irrigation is used to conserve water in farming?	 Learners watch a video clip on irrigation of crops through drip irrigation. In groups, learners to carry out drip irrigation in school using bottles. In groups, learners to carry out drip irrigation in the school using a 5 to 10 metre long perforated plastic pipe. 	Assorted containers - Bottles - Jerricans - Buckets - Wooden boxes - Used tyres - Baskets	Short answers, project, group discussions
5	2	Water Conservation In Farming	c) Appreciate use of drip irrigation in conserving water in farming.	What are the different ways drip irrigation is used to conserve water in farming?	Learners visit nearby farms and explore the use of drip irrigation method. In groups, learners discuss meaning and innovative ways of drip irrigation for conserving water Learners to innovate and use drip irrigation in gardening practices at home.	Assorted containers - Bottles - Jerricans - Buckets - Wooden boxes - Used tyres - Baskets	Short answers, project, group discussions
	3	Living Better With Wild Animals	By the end of the sub strand the learner should be able to: a) Identify small wild animals that destroy crops and domestic animals b) Explain damages caused by small wild animals in the farm		 In pairs, learners to brainstorm and share experiences on small wild animals such as birds, squirrels, monkeys, mongoose and moles that destroy crops and domestic animals. Learners to watch a video clip or listen to a resource person on small wild animals such as birds, squirrels, monkeys, mongoose and moles and the damages they cause on crops and domestic animals. 		Short answers, project, group discussions

	2	Living Better With Wild Animals	c) Construct a scarecrow using locally available materials d) Use a scarecrow to keep off small wild animals from the farm c) Construct a scarecrow using	wild animals that destroy crops and domestic animals? 2. What damage is caused by small wild animals in the farm? 3. How can you prevent reduce damage from small wild animals in the farm? 4. How is a scarecrow constructed?	In pairs, learners to brainstorm and share experiences on small wild animals such as birds, squirrels, monkeys, mongoose and moles that destroy crops and domestic animals. Learners to watch a video clip or listen to a resource person on small wild animals such as birds, squirrels, monkeys, mongoose and moles and the damages they cause on crops and domestic animals. Learners to watch video clip or charts on varieties of scarecrow. In groups, learners to discuss how they could make a scarecrow using locally available materials.	Resource persons-specialized or skilled persons in assorted topical areas	Short answers, project, group discussions
6		With Wild Animals	locally available materials d) Use a scarecrow to keep off small wild animals from the farm			in assorted topical	answers, project, group discussions
	3	Living Better With Wild Animals	d) Use a scarecrow to keep off small wild animals from the farm e) Use digital resources to acquire information on small wild animals		 Learners to watch video clip or charts on varieties of scarecrow. In groups, learners to discuss how they could make a scarecrow using locally available materials. 	Resource per areas	Short answers, project, group discussions
	1	Living Better With Wild Animals	d) Use a scarecrow to keep off small wild animals from the farm e) Use digital resources to acquire information on small wild animals		In groups, learners to construct a scarecrow using locally available materials. In groups, learners to install the scarecrows in the immediate environment to keep off small wild animals.	sons-specialized or	Short answers, project, group discussions
7	2	Living Better With Wild Animals	f) Store photos of small wild animals that destroy crops and domestic animals g) Appreciate the importance of living better with small wild animals.		 In groups, learners share information about small wild animals and store photographs using appropriate methods. Learners to consult a resource person such as an ICT specialist to guide on various methods of storing photos. 	Resource persons-specialized or skilled persons in assorted topical areas	Short answers, project, group discussions
	3	Living Better With Wild Animals	d) Use a scarecrow to keep off small wild animals from the farm e) Use digital resources to acquire information on small wild animals		Individual learners to make presentations on photos acquired and stored.	_	Short answers, project, group discussions
8	1	Fruit Seed Collection	By the end of the sub strand the learner should be able to: a) Identify places where fruit tree seeds could be obtained b) Collect fruit tree seeds from the local environment.	Where could we collect fruit seeds?	 In groups, learners to suggest various places where seeds of fruit trees such as <i>guava and tree tomato</i> could be obtained. With help of the parents or guardians learners to collect seeds of fruits such as <i>guava and tree tomato</i>. 	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions

	2	Fruit Seed Collection	By the end of the sub strand the learner should be able to: a) Identify places where fruit tree seeds could be obtained b) Collect fruit tree seeds from the local environment.	Where could we collect fruit seeds?	 In groups, learners to suggest various places where seeds of fruit trees such as <i>guava and tree tomato</i> could be obtained. With help of the parents or guardians learners to collect seeds of fruits such as <i>guava and tree tomato</i>. 	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions
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9	1	Fruit Seed Preparation	By the end of the sub strand the learner should be able to: a) Prepare fruit seeds for planting b) Appreciate the importance of preparing seeds for planting.	How are fruit seeds prepared for planting?	Learners to extract seeds from the fruits such as guava and tree tomato using appropriate means Learners clean the extracted seeds in water.	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions
	2	Fruit Seed Preparation	By the end of the sub strand the learner should be able to: a) Prepare fruit seeds for planting b) Appreciate the importance of preparing seeds for planting.	How are fruit seeds prepared for planting?	Learners to extract seeds from the fruits such as <i>guava and tree tomato</i> using appropriate means Learners clean the extracted seeds in water.	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions
	3	Fruit Seed Preparation	By the end of the sub strand the learner should be able to: a) Prepare fruit seeds for planting b) Appreciate the importance of preparing seeds for planting.	How are fruit seeds prepared for planting?	Learners sort bad seeds for disposal and retain the good seeds. Learners appropriately sun-dry the good clean seeds and protect them from birds.	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions
	1	Fruit Seed Preparation	By the end of the sub strand the learner should be able to: a) Prepare fruit seeds for planting b) Appreciate the importance of preparing seeds for planting.	How are fruit seeds prepared for planting?	 Learners sort bad seeds for disposal and retain the good seeds. Learners appropriately sun-dry the good clean seeds and protect them from birds. 	Assorted fruits - Guava - Tree tomato	Short answers, project, group discussions
10	2	Fruit Tree Nursery Bed	By the end of the sub strand the learner should be able to: a) Prepare a nursery bed for establishing fruit seedlings b) Sow seeds into a nursery bed c) Manage a fruit tree nursery bed up to transplanting	How are fruit seeds established in a nursery?	 In groups, learners to select a suitable site for establishing the fruit tree nursery bed (container nursery or ground nursery bed). In groups, learners to prepare and set up the nursery bed 	Assorted farm tools and equipment - Panga - Rake - Jembe - Slasher - Spade	Short answers, project, group discussions

	3	Fruit Tree Nursery Bed	By the end of the sub strand the learner should be able to:	How are fruit seeds established in a	In groups, learners to select a suitable site for establishing the fruit tree nursery bed (container)	Assorted farm tools and equipment - Panga	Short answers,	
		3	a) Prepare a nursery bed for	nursery?	nursery or ground nursery bed).	- Rake	project,	
			establishing fruit seedlings b) Sow seeds into a nursery bed		 In groups, learners to prepare and set up the nursery bed 	- Jembe		
			c) Manage a fruit tree nursery bed		set up the nursery bed	- Slasher	group	
			up to transplanting			- Spade	discussions	
11 14			End Te	erm/Closing	;/Exams			