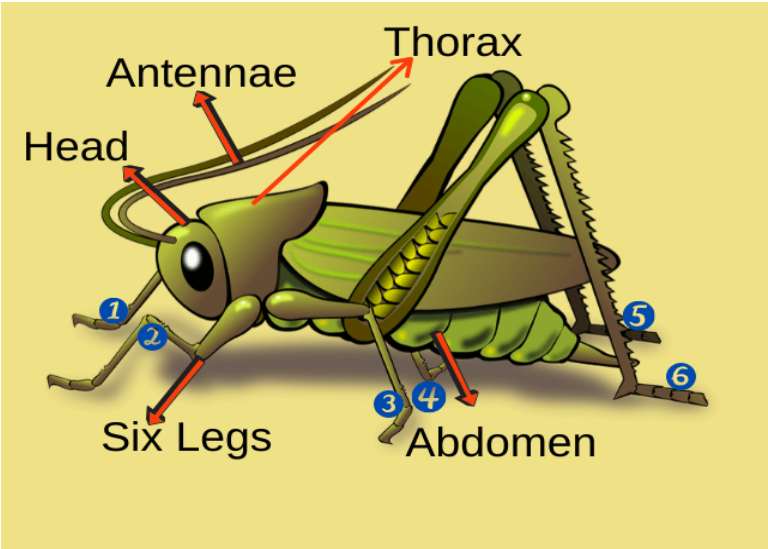
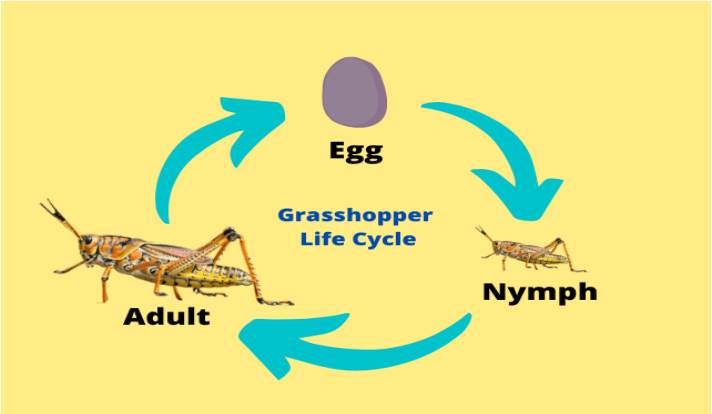
Strand:	Cycles	**Sub-Strand:**	Life cycle of organisms

BASIC 9

WEEKLY LESSON PLAN – WEEK 5

Content Standard:	B9.2.2.1 Demonstrate an understanding of the life cycle of grasshopper and assess how their activities affect humans				
Indicator (s)	B9.2.2.1.1 Describe the life cycle of the grasshopper as a form of incomplete metamorphosis		**Performance Indicator:** Learners can describe the life cycle of a grasshopper.		
Week Ending	11-10-2024				
Class	B.S.9	**Class Size:**		**Duration:**	
Subject	Science				
Reference	Science Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook				
Teaching / Learning Resources	Word chart, video, Poster, Pictures	**Core Competencies:**	• Critical Thinking and Problem Solving (CP), • Communication and Collaboration (CC) • Digital Literacy		

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
MONDAY	Assist Learners to identify the grasshopper insert by showing them a life grasshopper and pictures. Learners brainstorm to describe the grasshopper.	1. Assist Learners to draw and label the parts of a grasshopper. 2. Draw the stages of the life cycle of a grasshopper from egg through nymph to adult on the chalkboard. 3. Explain the stages in the life cycle of a grasshopper using a Poster displaying the life cycle of grasshopper. 4. Learners brainstorm to identify the behavior of each stage of the life cycle of a grasshopper.  It has mainly **THREE** parts i.e. the head, the thorax and the abdomen. **The Head –** Head contains eyes, antennae, and mouthparts **The Thorax** – Thorax contains two pairs of wings and 6 legs **The Abdomen –** Abdomen bears the digestive and reproductive	Learners brainstorm to draw the life cycle of a grasshopper. **Exercise;** Explain the stage in the life cycle of a grasshopper.

		structures. There is also a small part called **pinchers** used to tear off food such as grasses, leaves and cereal crops.  	
THURSDAY	Assist Learners to compare the life cycle of a grasshopper to that of a mosquito.	1. Explain incomplete metamorphosis and complete metamorphosis to the Learners. 2. Assist Learners to identify the stages involved in incomplete metamorphosis and complete metamorphosis. 3. Discuss with the Learners about the characteristics of a grasshopper. 4. Learners in small groups to differentiate between a Locust and a grasshopper. **Characteristics of Grasshopper** • Grasshoppers are insects that are medium to large. The adult length depends on the species, from 1 to 7 cm. • They have chewing mouthparts, two pairs of wings, one narrow and tough, the other broad and flexible, and long jumping hind legs. • In having short antennas that do not reach very far back on their bodies they are different from those groups with long antennae. • Usually, grasshoppers have big eyes and are colored to blend into their environment , usually a combination of brown, gray or green. • The males have bright colors on their wings in some species, which they use to attract females. • A few species eat toxic plants, and keep the toxins for protection in their bodies. They are colored brightly to warn predators they taste bad. • Female grasshoppers are larger than males, and have pointed spots at the end of their abdomen to help them lay underground eggs. • Sometimes male grasshoppers have special structures on their wings which they rub on their hind legs or rub together to make sounds. **Difference Between Locust and Grasshopper**	Through questions and answers, conclude the lesson. **Exercise;** 1. What is the difference between Locust and a grasshopper? 2. State the stages involved in incomplete metamorphosis.

		Grasshoppers	Locusts
		Structural Differences Between Locusts and Grasshoppers	
		The front wings are thin and hard while the outside wings are broad and flexible	The wings are getting longer and stronger so long-distance flights are possible
		Behavioral Differences	
		In the first-place solitary creatures, they come together for reproduction only throughout their lives.	They can be found in solitary confinement, mostly in groups where they drill, bask and roost.
		Sedentary species which have the same habitat for long periods of time	Migratory species in search of food frequently move from one location to another
		Human Interactions	
		They are also treated as pests because of their ability to destroy crops, an issue which has plagued farmers for centuries	Aid farmers to prepare for droughts as swarms of locusts indicate the arrival of a dry period in the area
FRIDAY	Show Learners pictures of the geographical range and habitat of grasshoppers.	1. Assist Learners to describe the behaviours of grasshoppers. 2. Learners brainstorm to identify the diet or food of grasshoppers. 3. Discuss with the Learners on how grasshoppers reproduce their young offspring's. 4. Learners in small groups to discuss and present to the class on the scientific classification of grasshoppers. **Scientific Classification** Kingdom - Animalia. Phylum - Arthropoda. Subphylum - Hexapoda. Class - Insecta. Order - Orthoptera. Suborder – Caelifera Diet - Grasshoppers eat plants which includes grasses, leaves and	Reflect on how the grasshopper reproduces young ones. **Exercise** 1. Describe the behavior of a grasshopper. 2. Write on how grasshoppers reproduce

		cereal crops. Predators - Their predators include birds, beetles, rodents, reptiles, and spiders. Some Flies also eat Grasshopper eggs. The Grasshoppers greatest enemies include various kinds of Flies that lay their eggs in or near Grasshopper eggs. After the Fly eggs hatch, the newborn Flies eat the Grasshopper eggs. Some flies will even lay their eggs on the Grasshoppers body, even while the Grasshopper is flying. The newborn Flies then eat the Grasshopper. Reproduction The Adult Grasshoppers gain sexual maturity within 15 days and survive for a span of about 30 days. Grasshopper's Reproductive System consists of the Gonads, the ducts which carry sexual products to the exterior, and accessory glands. In Males, the Testes consist of a number of follicles which hold the spermatocytes as they mature and form packets of elongated spermatozoa. During reproduction, the Male Grasshopper introduces sperm into the ovipositor through its Aedeagus (reproductive organ), and inserts its spermatophore, a package containing the sperm, into the Female's Ovipositor. The sperm enters the eggs through fine canals called Micropyles	young ones.

Name of Teacher: **School:** **District:**