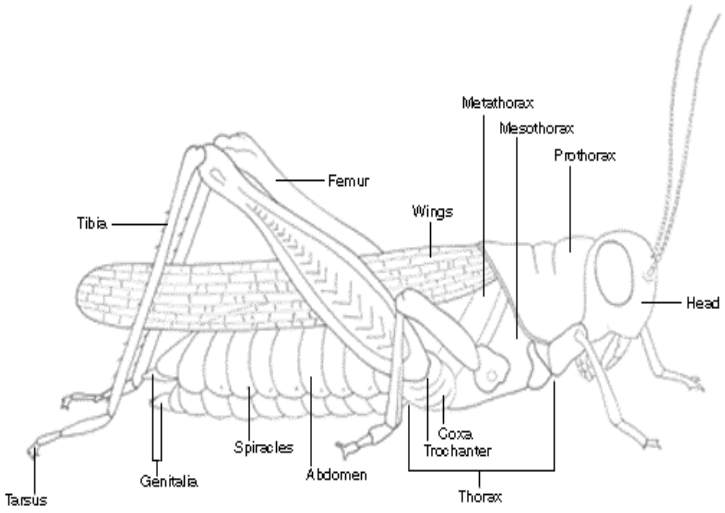
Strand:	Cycles	**Sub-Strand:**	Life cycle of organisms

BASIC 9

WEEKLY LESSON PLAN – WEEK 6

Content Standard:	B9.2.2.1 Demonstrate an understanding of the life cycle of grasshopper and assess how their activities affect humans				
Indicator (s)	B9.2.2.1.2 Examine how the activities of the grasshopper affect humans.		**Performance Indicator:** Learners can identify the benefits of grasshopper to human.		
Week Ending	18-10-2024				
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 (DL		

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
MONDAY	Discuss with the Learners on the meanings of some key terminologies in the lesson. **Terminologies;** i. Harmful ii. Damage iii. Nymphs iv. Parasites v. Abdomen vi. Predators vii. Ecosystem	1. Assist Learners to draw and label the parts of a grasshopper. 2. Show Learners video to explain the functions of each part of the grasshopper to the Learners. 3. Learners brainstorm to describe 5 characteristics of grasshoppers. 4. Discuss with the Learners on the activities of the grasshopper in everyday life.  **Head:** The anterior part of an insect body with eyes, antennae, and mouthparts. **Thorax:** The body section after the head, with the legs and wings attached. There are three sections of the thorax: the prothorax, the mesothorax, and the metathorax.	Reflect on the functions of the parts of grasshopper. **Exercise;** Draw and label the parts of grasshopper.

		Abdomen: The posterior section of the body containing the reproductive and digestive organs. Spiracles: Breathing pores. **Coxa**: The section of a leg that is attached to the body. Trochanter: The second segment of a leg, between the coxa and the femur. **Femur:** The third segment of a leg, between the trochanter and the tibia. (Grasshoppers and other jumping insects have enlarged hind femora with powerful muscles). Tibia: The fourth segment of a leg, between the femur and the tarsus. **Tarsus:** The leg segment after the tibia, often subdivided into several sections. Genitalia: The sexual organs. Wings: Outgrowths of the body wall that enable insects to fly. The first pair of wings is sometimes modified into a protective covering for the hind wings.	
THURSDAY	Review Learners knowledge on the previous lesson.	1. Learners in small groups to discuss and report to the class on activities of grasshopper that is beneficial to humans. 2. Discuss with the Learners on activities of grasshopper that is harmful to human life. 3. Learners brainstorm to identify diseases that affect grasshoppers.  **1. They have a high content of good quality proteins** Their supply of protein is **higher than meat** and, contrary to it, its **harmful fats** content is almost non-existent. Chapulines have between **70%** and **77%** of **protein** while meat has between **50%** and **57%,** according to an article of the **Autonomous University of the State of Mexico (UAEM).** Nevertheless, although it could be a good option to substitute the consumption of meat, a **great amount** of grasshoppers is needed to supply the same protein meat supplies with a few	Through questions and answers, conclude the lesson. **Exercise;** 1. State 3 benefits of grasshoppers to human 2. Write 2 harmful activities of grasshoppers .

		grams. **2. They have an antibacterial effect** According to a release of the **National Polytechnic Institute (IPN)** , chapulines have an important content of a **polysaccharide** called **chitin** , which has **antibacterial properties** , in accordance with a study published by the **Rafael Urdaneta University** in Venezuela. **3. It maintains a healthy nervous system** The same release of the **IPN** points out that grasshoppers supply **Vitamin B1 and B12** to the diet, which helps maintain healthy **digestive and nervous systems**, accordingly. **4. They are easy to digest** Another of the advantages of consuming chapulines, and **insects** in general, is that they are **easy to digest.** "For instance, a grasshopper was **62.96% of total protein** , of which 89.63% is digestible," mentions a release on the properties of insects of the **National Autonomous University of Mexico (UNAM).** **5. They supply energy** Grasshoppers **supply more energy** even than cereals like wheat. With a little amount, you can obtain the vitality to perform your daily activities. It can be an excellent option for a **mid-afternoon snack** , according to the same UNAM release.	
FRIDAY	Briefly explain to the Learners on why there is the need to promote the effects of the beneficial activities of grasshoppers.	1. Learners brainstorm to identify ways of promoting the effects of the beneficial activities of grasshoppers. 2. Discuss with the Learners on how to reduce the effects of harmful activities of grasshoppers. 3. Assist Learners to identify the habitat of grasshoppers. 4. Show Learners pictures and videos to describe the eating habit of grasshoppers	Through questions and answers, conclude the lesson. **Exercise;**

		Grasshopper Habitat and Grasshopper Diet Grasshoppers live in fields, meadows and just about anywhere they can find generous amounts of food to eat. A grasshopper has a hard shell and a full grown grasshopper is about one and a half inches, being so small you would not think they would eat much – but you would be so wrong – they eat lots and lots – an average grasshopper can eat 16 time its own weight. The grasshoppers favourite foods are grasses, leaves and cereal crops. One particular grasshopper – the Shorthorn grasshopper only eats plants, but it can go berserk and eat every plant in sight – makes you wander where they put it all. **Grasshopper Behaviour** Grasshoppers are most active during the day, but also feed at night. They do not have nests or territories and some species go on long migrations to find new supplies of food. Most species are solitary and only come together to mate, but the migratory species sometimes gather in huge groups of millions or even billions of individuals. 	1. State 5 effects of activities of grasshoppers to human. 2. Write 3 ways of reducing harmful effects of grasshoppers on human.

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