

# Oxbow Phenomena: Praying Mantis

Praying mantis are a unique insect with six legs with the front two legs angled together in the shape of a “prayer,” a flexible head, three main body parts, two antennae, and compound eyes. These insects primarily feed on other insects, waiting patiently to ambush and attack – but have even been known to eat small birds like hummingbirds. Usually females cannot fly while males can, and mates will lay eggs where a nymph will emerge; praying mantises, like other insects, go through metamorphosis. Most mantises have camouflage coloration, with shades of greens and browns.

Grade	Standard	Guiding Question(s)	How to include in lesson?
K	SKL2: Students will compare the similarities and differences in groups of organisms.	How is this insect similar to other insects you have observed? How is this insect different?	-Use to characterize a praying mantis as an insect and discuss how they have six legs -Discuss how a praying mantis is unique from other specimen <ul style="list-style-type: none"> <li>• Build a praying mantis from playdough or chenille stems</li> </ul>
1st	S1L1.Students will investigate the characteristics and basic needs of plants and animals.	What does a praying mantis need to survive?	-Use to discuss what a praying mantis may eat <ul style="list-style-type: none"> <li>• Sort types of food: vegetables, fruits, and meat</li> </ul> -Discuss how insects are an important part of many animals, including some humans’ diet <ul style="list-style-type: none"> <li>• Make a list of at least 5 other animals that prefer to eat insects</li> <li>• Imagine what it would be like to eat insects. Describe the taste and texture.</li> </ul>
2nd	S2L1. Students will investigate the life cycles of different living organisms	How is a praying mantis born? Does it look the same or different during its life cycle?	-Discuss direct development and egg laying <ul style="list-style-type: none"> <li>• Draw what you think a baby praying mantis looks like</li> </ul>
4th	S4L2 Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and external features (camouflage and protection).	How does a praying mantis's covering help with survival? How would you describe the locomotion or movement of the insect? How can insects shelter,	-Discuss behavioral adaptations that affect behaviors such as mating, evasion of predators, and alerting of weather conditions, etc. <ul style="list-style-type: none"> <li>• Make a list of 10+ physical adaptations you observe on the insect.</li> </ul>

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		protect, or defend themselves?	<p>-Can use to analyze how the structure of the insect's body helps it to survive.</p> <ul style="list-style-type: none"> <li>• Write an factual explanation or a fiction story for what the insect is doing and/or how this behavior could help with survival.</li> </ul>
5th	S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.	<p>How is this motion an inherited or acquired behavior?</p> <p>How is hunting an inherited or acquired behavior?</p>	<p>-Use to differentiate between anatomically and behaviorally different traits.</p> <ul style="list-style-type: none"> <li>• Draw the praying mantis and label its anatomy and how it uses its body parts for certain behaviors</li> </ul> <p>-Use to discuss different types of traits including reproductive, feeding, survival, locomotion, etc</p> <ul style="list-style-type: none"> <li>• Make a list of some of the behaviors that you see in the video and if they were passed to offspring from parents or learned through interaction with environment.</li> </ul>