

## **Featuring Moscow String Quartet: *Strings***

### **Study Guide: Science**

**Objective:** To learn about nocturnal animals and their habitats, habits, etc.

**Standard:** SC.3.L.15.1: Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors; SC.4.L.16.3: Recognize that animal behaviors may be shaped by heredity and learning.; SC.5.L.17.1: Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

**Time:** 45 minutes

**Materials:** paper, pencil, Nocturnal Animals poster, whiteboard/blackboard, *Creatures of the Night* by Mary Ann Fraser

**Activity:**

1. One of the pieces the Moscow Quartet will be playing is Borodin's String Quartet No. 2 in D Major. We have heard this piece in other study guides, and one of the movements is called "Notturmo". This is an Italian word, but we will explore what the English version "Nocturne" means.
2. Before beginning the lesson, the students will make a KWL chart. They can do this by folding a piece of paper by thirds (using the landscape orientation for the paper) and labeling each section K, W, L. This stands for Know, Want to know, and Learned. Students will fill in what they already know (which may be nothing) about nocturnal animals in the K section. Then they will fill out what they would like to learn about the animals in the W section. The L section will be filled out at the end of the lesson.
3. Teacher explains Nocturne means "of the night". The class will be exploring the habits and classifications of nocturnal animals. Display a poster of nocturnal animals or write a few on the board. Please see the website below ([enchantedlearning.com](http://enchantedlearning.com)) for examples of nocturnal animals.
4. Explain that nocturnal animals are active while the students are sleeping. Tell the students that this unit will cover owls, bats, spiders, frogs, and skunks.
5. Discuss with the students that most nocturnal animals have special eyes that reflect light to help them see. The pupils of a nocturnal animal eyes get larger to let in more light in darkness. Behind each eye is a shiny surface called a tapetum (tah-pee-tum). The tapetum reflects light like a

mirror back into the eye. The yellow eye shine is what we see when light catches the eye of a nocturnal animal.

6. Divide the students into pairs. Turn off the light and let the students' eyes adjust to the dark (about 1 min.). Allow the students to take turns looking at their pupils when the lights come back on. Turn the lights back on and ask the students to tell how their vision was different with the lights off.
7. Explain to the students that because the pupil is the part of the eye receiving light, it will open wide when there is not much light so that it can receive as much light as possible in order to see. Have the students explain this process to check for understanding.
8. Read the book, *Creatures of the Night* by Mary Ann Fraser. Discuss any new information about nocturnal animals with the students.
9. Have students work in groups to research various nocturnal animals on the internet. They can fill in their facts on the L section of their paper. If time permits, have students share their findings with the class.
10. Teacher will compile a list of facts about the animals on the board or chart paper.

Assessment: Class discussion, observation, and KWL chart.

Resources:

<http://www.enchantedlearning.com/coloring/nocturnal.shtml>

[http://alex.state.al.us/lesson\\_view.php?id=6859](http://alex.state.al.us/lesson_view.php?id=6859)