

# Night Sounds

The planetarium is the multimedia environment for student investigation of sound as it relates to day and night activities, seasonal changes of weather, and the behavior of animals.

**Grade Level: First**

**Curriculum Areas: Science**

**QCC Standards:**

- 1 Asks questions, makes and keeps simple records of observations, sorts and classifies objects, communicates with others, makes predictions, uses estimation and measurement, and makes sketches and diagrams to explain ideas.
- 5 Explains the role of vibrations in sound production. Demonstrates how vibrating rubber bands produce sound.
- 7 Describes and compares variation in sound, such as high, low; quite, loud; harsh, pleasant and emergency. Compares and groups sounds or objects that make sounds.
- 12 Compares various animal groups and how they are alike and different. Identifies groups of animals that have similar characteristics and names the characteristics.
- 15 Observes weather. Records daily weather observations and changes as they relate to seasonal variations.
- 17 Compares and contrasts differences in weather by seasons. Constructs weather charts showing daily temperature, changes, precipitation, cloud cover and wind during different seasons.
- 18 Makes observations using simple weather-related instruments. Measures weather characteristics using thermometers, weather vanes and rain gauges.

**Facts and concepts:**

- Weather is a condition of the atmosphere.
- Weather conditions change daily and seasonally.
- Different types of weather require different types of instruments and observations.
- Animal behavior is influenced by day and night, and seasonal changes.
- Animal groups have special characteristics because of these changes.
- Sound is a form of energy caused by vibrations.
- Air is needed to carry sound vibrations. Solids and liquids also carry sound.
- Hearing allows animals to sense these vibrations.

## Procedures in the Classroom

1. As you develop your classroom lesson, refer to some of the suggested activities on the GLC.
2. Have your students call Nightwatch, (404) 802-1105 to enhance their listening skills.
3. This is an excellent time to interface the disciplines of science and music. Have your music teacher visit the classroom to demonstrate how different musical instruments produce sounds.
4. Have a school nurse or auditory specialist visit your class and discuss the care and use of your ears.
5. Go outside of the school to have a sensory awareness. The trip to the planetarium may provide an opportunity.

## Procedures in the Planetarium.

- Planetarium introduction.
- Check the current weather conditions for a trip away from Atlanta.
- Sunrise and daytime sounds and activities. Some of these activities will demonstrate properties of sound.
- A truly dark sky will be permeated with night sounds.
- Constellation identification and stories.
- Seasonal changes upon animal behavior will be explored.
- Sunrise and return to the city.
- Questions and review.

## Follow-up Activities

1. Evaluation
2. Discussion of planetarium visit.
3. Take students outside of school to identify and record sounds.

## Evaluation Suggestions

1. Artwork of planetarium visit.
2. Make up your own night sounds test from web sites.

## Vocabulary

Weather:	rain wind	snow storms	temperature	clouds
Sound:	vibrations			
Animal groups:	mammals fish	birds insects	reptiles	amphibians
Constellations:	Big Bear Scorpion	Harp	Swan	Eagle