



K-2 Life/Earth Science

Southern Nevada Regional Professional Development Program

Studying a Schoolyard Habitat

INTRODUCTION

One of the best places to begin engaging students in active hands-on science is right outside your classroom door. Long ago societies lived closer to nature than most people in the world do today. Observing plants, animals, insects, birds, weather, and the sky was part of daily life. Providing time for your students to actively observe nature throughout the school year will increase their understanding of the world around them.

WHERE'S THE SCIENCE?

Students will select a small area on the schoolyard to observe throughout the school year, recording observations in a science notebook. Over time, students will observe seasonal changes in the weather, as well as changes in plant and animal life.

MATERIALS

Plastic Baggie containing:

- Thermometer
- Hand lens
- Plastic spoon
- Bug viewer
- Small scoring pencil
- Science notebook

Teacher materials

- Class science notebook

PROCEDURES

Lesson One

1. Tell the students that today they will be going outside to select an area on the playground that they will observe throughout the school year. Divide the students into pairs to work. Once they have selected an area they want to study, they need to draw a map in their science notebook so that they will be able to return to their plot in the future. Note: If your school is located next to a park, you may want to get permission from your building administrator to use this facility. For kindergarten students you can pre-select an area to study as a group and record information in a class notebook.
2. Make sure you have recorded the location of each group's plot in your own science notebook, in case students are unable to remember their location next time you observe. You can also take digital photos of each area and place them in your notebook.
3. As students complete their habitat maps, call them to a central area outside; once everyone is finished with this step, show them one of the small plastic baggies and discuss each of the materials enclosed. Instruct them to return to their habitat and closely observe what they see in their habitat. Encourage them to take and record the temperature of both the air and soil, as well as a sketch of the habitat including plants and animals. Students may also collect any loose materials they find to glue or tape into their science notebook (e.g. twigs, leaves, soil)
4. As students work in pairs, visit each group and encourage them to use all of the materials provided to collect as much information as possible.
5. Collect the materials bag and return to the classroom. Call the students to the carpet area and discuss observations. Have

- each pair share out what they observed today. Chart things observed on a classroom chart labeled “Schoolyard Habitat Study”. This chart can be used as an opening activity for the next plot study to remind students of things they can observe.
6. Observe plots throughout the year at least once a month, preferably bi-monthly. Students will observe seasonal changes in weather and plant and animal life over time. Always take out your science notebook to record student responses, notes, new ideas for further study, etc..
 7. At the end of the school year have students summarize observations and share out whole group.

Additional Resources

<http://www.schoolyardhabitatfoundation.org/Uses.htm>

<http://www.fws.gov?ChesapeakeBay/school/resource.htm>

One Small Square The Night Sky by Donald M. Silver ISBN 0-07-057933-4

One Small Square Woods by Donald M. Silver ISBN 0-07-058045-6

The above books are from the *One Small Square* series. They’re an excellent resource for ideas on what students can observe.

Nevada State Standards

E2A1 Students know the Sun is a source of heat and light. E/S

E2A3 Students know weather changes from day to day and seasonally. I/S

E2A4 Students know weather can be described by measurable quantities such as temperature, wind direction and speed, and precipitation. I/L

E2C1 Students know Earth is composed of different kinds of materials (e.g. rocks, soils, and water) E/S

E2C2 Students know rocks come in many sizes and shapes, with various textures and colors. E/S

E2C3 Students know soils have different colors or textures depending on their composition. E/S

L2A1 Students know animals and plants have offspring that are similar to their parents. E/S

L2C2 Students know a habitat includes food, water, shelter and space. E/S

L2C3 Students know living things are found almost everywhere in the world. E/S

N2A1 Students know how to make observations and give descriptions using words, numbers and drawings. E/S

N2A2 Students know tools can be used safely to gather data and extend the senses. I/L

Safety Reminder:

You should always visit the area before sending the students outside to make sure it is safe and clean. As students work, observe closely; if they wish to observe an animal up close, set the stage that they need to use caution and should never directly handle an animal, instead they should use the bug viewer provided.