

COOPER ENVIRONMENTAL SCIENCE CAMPUS

TUCSON UNIFIED SCHOOL DISTRICT

ACTIVITY CENTERS

GRADES 4 - 8

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Note: We are in the process of translating the activity center lesson plans into Spanish. If you would like the Spanish version, give us a call and we will send it to you if it is available.

ACTIVITY CENTERS

The Activity Centers comprise the afternoon portion of your visit.

Complete lesson plans for the centers available for your grade level are included in this booklet.

Parents or other adult helpers lead the Centers. We suggest that you, the teacher assign the centers to others rather than leading them yourself. This gives you time to visit the various centers, observe the activities and assist where needed. This also gives parents a good opportunity to participate in teaching.

Give your adult helpers the lesson plans for their assigned centers as far in advance as possible so they may prepare their lessons and perhaps do some research. Tell them the time allotment for each center, approximate number of students in a group, the number of rotations, and any other details that will assist them in planning their lessons.

A Cooper ESC staff member gives the activity center kits to the parent center leaders while the other staff member is presenting the group lesson to all students. (This is usually done right after lunch.) It is important that a staff member distribute the kits so that the center leaders receive the necessary information about the use of the materials and the locations of the centers. Please read through the materials so that you can help plan for these activities.

Most of the materials for the centers are available in the kits, but please note the materials you must bring. These are listed in the lesson plans and on the master checklist.

You do not have to use every center. You may wish to use one or more of your own activities during this time.

Typically, the students are divided into small groups of 10 or fewer. Suggested time for each activity is about 30 - 40 minutes, with about 5 minutes for rotation time. You may vary the time according to your schedule. These activities are quite flexible.

- Here is a SAMPLE schedule.
- You may use MORE or FEWER centers.
- You may bring your own center activities.
- You may shorten or lengthen the times.

1:00 - 1:40 ... First center

1:40 - 1:45 ... Rotate to next center

1:45 - 2:25 ... Second center

2:25 - 2:30 ... Rotate to next center

2:30 - 3:10 ... Third center

3:10 - 3:15 ... Rotate to next center

3:15 - 3:55 ... Fourth center

Etc, if you are using more centers

IF YOU ARE BRINGING YOUR OWN ACTIVITY CENTER PLEASE NOTE THESE GUIDELINES

You are welcome to use your own activities and resource people in addition to or in place of those in our Activity Center booklet. However, we ask you to contact us well in advance and inform us of the content so that we may:

- advise you if it is an acceptable activity for this program
- assist you in any way (site, materials, etc.)

In planning your own activities, please consider the following criteria.

Is your proposed activity center lesson:

- supportive of our desert ecology emphasis?
- taking advantage of the Cooper ESC desert environment?
- an active rather than a passive activity?
- compliant with the CORE curriculum?

If your answer to any of these questions is "no", then perhaps the lesson is better suited for the classroom setting as a pre-trip or post-trip activity.

Please read through the Activity Center lesson plans. You will notice that most of the activities are active and make optimum use of our desert setting. Also, the center kits provide many materials you may not have access to at school.

If you are bringing your own activity centers, here are some suggestions:

- If you are doing an art activity, have the children create their own sketches, paintings, models, etc. as they observe the desert. Avoid coloring-book page "art" or projects that could be better done in the classroom.
- If you are asking a speaker to come in to instruct at one of the centers, ask that person to make use of the environment. If it's a sit-down lecture session, it may be best if that speaker presents the lesson back in the classroom.
- Choose lessons that are appropriate to the Cooper ESC mission statement which is included in your packet, but is restated here:

The purpose of the program is to provide a natural area, resource personnel, and facilities so that TUSD classes may have an outdoor experience as an integral part of their environmental education instruction.

OTHER CENTERS AVAILABLE

In addition to the ten centers included in this book, here are five more you may wish to use. If you are interested, please call and we will send lesson plans to you.

ARTHROPOD ADVENTURES

After a brief review of arthropods...including anatomy, types of arthropods, and types of metamorphosis, the group takes a short walk in the desert, discovering arthropods and signs that arthropods are nearby. Back at the center "headquarters" the students discuss their findings, and work on other activities if time permits.

We supply all materials which include:

- arthropod models
- trilobite
- velco board and illustrations
- mounted specimens of arthropods
- magnifying lenses

LIZARDS AND TEMPERATURE CONTROL

A warm, sunny day is essential for this activity to work effectively. We supply all of the materials.

In this center, students:

- compute the average temperatures in sun and shade (leaders assist with this)
- keep their "lizards" (wooden lizards with thermometers) alive by keeping them within a five-degree temperature range as the lizards search for food (wooden insects).

OWL PELLETS

You buy the owl pellets for this activity. We will send a list of suppliers to you. Pellets are approximately \$2.00 apiece. Three students can share one pellet. We supply the other materials.

In this center, students:

- learn about the calls and natural history of the Screech Owl, Elf Owl, and Great-horned Owl
- dissect pellets
- record the findings on worksheets.

TAKE A HIKE

Students learn how to prepare for a hike in the desert and discuss sensible measures to as they act out potential dangers they encounter during a short walk along a trail We provide a backpack containing essential materials for a safe and smart desert walk.

TUNING IN

The purpose of this activity is to present a variety of activities that encourage students to tune into their natural surroundings by sharpening their senses of sight, hearing, and touch and to practice being a quiet observer.

ACTIVITY CENTER MATERIALS TO BRING

TEACHER'S CHECKLIST

The checklist below covers materials needed for the Activity Centers. (These are also listed and explained in the lesson plans.) **Note:** There is an additional checklist in the Appendix for materials not specifically for centers.

Animal Tracks

- Paper for making track prints
- Tempera (washable) paints

If you are making plaster casts:

- Plaster of Paris, stick to stir plaster, cooking oil spray, container for mixing plaster

Basic Botany

- Pencils
- Paper for leaf sketches
- Envelope for taking sketches back to school

Bills, Eyes, Wings, Feet

- Nuts with shells such as peanuts

Birding

- Optional: Bird field guides
- Optional: Extra binoculars

Cactus Close-Up

- Optional: Paper and pencils for notes and/or sketches

Desert Detectives

- Copies of Our Desert Detectives worksheets.
- Pencils
- Envelope for taking worksheets back to school

DiscoveryScopes™

- Drawing paper (cut to fit on clipboard)
- Pencils
- Large envelope for finished drawings

Sun Fun

- Copies of Spectrum chart (master in lesson plan)
- Envelope for taking spectrum charts back to school