


EACHES

ANT HOMES UNDER THE GROUND

Science and Math Activities for Young Children

TEACHER'S GUIDE

LHS GEMS

Activity 1: *Ants, Ants, Ants*

Session 1: *The Ant Hunt*

What You Need

For the group

- 1 tray with a small mound of earth
- Moist food for ants (use extremely small amounts) such as canned cat or dog food, lunch meat, a piece of fruit, or a piece of sticky candy
- 1 board, log, or flat stone, such as a flagstone, approximately 8" x 12"

optional

- Several spray bottles filled with water (only if the ground outside is dry)

Session 2: *The Ant Farm*

What You Need

For the group

- 10–12 live ants (If you have ants in your area that are too large to squeeze through the cracks in an ant farm, collect them. If not, you can purchase ants. See Resources on page 79.)
- 1 commercial ant farm with sand and birdseed (See Resources on page 79.)
- Several eye droppers
- 1 cup, half filled with water

optional

- 1 homemade ant farm (See the instructions for making a homemade ant farm on page 13. The books *Ant Cities* and *questions and answers about Ants* give directions for making a homemade ant farm. See the Resources on page 79.)

Activity 2: Ants and Ant Tunnels

Session 1: A Closer Look at Ants

What You Need

For the group

- 1 Ant poster (page 19 and as an 11" x 17" perforated fold-out sheet in the back of this book)
- Ant model patterns—not needed if the children design their own ant (page 20 and as a perforated sheet in the back of this book)
 - Pattern A (worker ant)
 - Pattern B (ant leg)
 - Pattern C (ant antenna)

- 1 tray
- 1 large pair of scissors
- Newspaper (to cover the tray and work tables)

For each child and yourself

- 1 sheet of 6" x 6" brown construction paper (or paper from a grocery bag)
- 1 container of white paste or glue, or a glue stick
- 1 pencil or black marker
- optional*
 - Scissors—needed if the children design their own ants
 - Scraps of brown paper

Session 2: Ant Tunnels

What You Need

For the group

- 1 Ant Farm
- Sections 1 and 2 of the Ant Nest poster—Ant Tunnels (The sections are 11" x 17" perforated fold-out sheets in the back of this unit.)
- Several ant books with good pictures of tunnels. (See Resources on page 79.)
- 1 or 2 tunnels made from sheets or blankets draped over chairs or tables; or use a commercial tunnel (a fabric-covered spiral large enough for a child to crawl through—available at many toy stores)
- 1 chamber made from a table with a blanket or sheet thrown over it; or use a tent or a large box, such as a box a refrigerator or oven is shipped in. Connect the chamber to the tunnel(s).
- Ant Farm Activity Sheet (page 24 and as a perforated sheet in the back of this unit)

Session 3: The Ant Nest Mural

What You Need

For a group of 10-12 children

- 1 large piece of butcher paper (about 3' x 10')
- Several paper ants

For each child and yourself

- 1 sheet of butcher paper (18" x 18")
- 2 sheets of gray or white construction paper (9" x 12")
- 1 marker or pencil
- 1 container of glue

Getting Ready

1. For each child and yourself, precut the two sheets of gray construction paper.
 - Cut one sheet in half lengthwise into two 4 ½" x 12" strips.
 - Cut the other to resemble an ant chamber. (See the drawing on page 26.)

Activity 3: What Happens Inside an Ant's Home?

Session 1: Scouts and Guards

What You Need

For the drama

- 1 brown towel, sheet, or blanket
- 1 bucket
- 1 doll
- 1 lunch bag
- 1 graham cracker
- Several paper ants made in the last activity

For the group

- 1 bottle of lemon or strawberry extract, or any familiar food extract with a mild scent (Use this scent in Following the Scent Trail on page 32.)
- 1 bottle of peppermint extract, or any familiar food extract with a strong scent (Use this scent in Guarding the Nest on page 33.)
- 2 plastic bags for cotton balls
- 1 piece of string or thick yarn approximately 10 yards long, for an ant trail (Could use a chalk line on cement.)
- 1 grocery bag
- 1 tray
- Several extra cotton balls

For each child and yourself

- 1 cracker
- 1 cotton ball

Session 2: Dragging Food into the Nest

What You Need

For the group

- 1 or 2 tunnels made from sheets or blankets draped over tables; or use a commercial tunnel (a fabric-covered spiral large enough for a child to crawl through)
- 1 sleeping bag, blanket, or bedspread to make a caterpillar; or 1 large pillow or cushion to make a bug
- 4 pieces of rope or strips of fabric, 2' long, for the "caterpillar"

optional

- 2 round fabric "eyes," about 3" in diameter
- 1 needle and thread for sewing eyes onto the "caterpillar" or "bug"

Session 3: More Ant Food

What You Need

For the group

- 1 Ant Farm
- Ant Nest poster (The sections are 11" x 17" perforated fold-out sheets in the back of this unit.)
- 1 roll of clear tape
- 1 roll of masking tape, or push pins
- 1 tiny scrap of food, such as a dead gnat or about a 1/16" slice of strawberry
- Markers or crayons in assorted colors

optional

- Several spray bottles filled with water

Activity 4: How Ants Grow and Change

What You Need

For the group

- Ant Nest mural with the children's individual nests from Activity 2, Session 3
- Paper ants made in Activity 2, Session 1
- 1 sheet of 6" x 8" brown construction paper (or paper from a grocery bag) for the queen ant
- Patterns B, C, and D (queen ant) on page 20
- Ant Nest poster
- Section 5 (Queen and Eggs) of the Ant Nest poster
(The section is an 11" x 17" perforated fold-out in the back of this book.)
- 1 Ant Farm
- 1 paper chamber
- 1 paper tunnel
- 1 roll of masking tape or several push pins
- 1 roll of clear tape

- Scraps of white, green, yellow, and brown paper
- Several white crayons
- Markers or crayons in assorted colors
- Several containers of glue or glue sticks
- Several scissors
- Several ant books with good pictures of ant eggs and larvae
(See Resources on page 79.)

optional

- Section 6 (Larvae and Pupae) of the Ant Nest poster
(The section is a 11" x 17" perforated fold-out in the back of this unit.)

Activity 5: Fill the Hill

What You Need

For each child and yourself

- 1 Fill the Hill game board (page 52 and an 11" x 17" perforated fold-out sheet in the back of this book)
- 1 plastic container
- 15–20 plastic ants
- 5–10 grains of uncooked rice to represent the ant eggs
- 2 one-inch pieces of green yarn to represent a grasshopper
- 2 one-inch pieces of yellow yarn to represent caterpillars

- 1 small piece (about half-an-inch square) of a graham or saltine cracker

optional

- crayons, markers, and/or pencils

Session 2: Fill the Hill Again!

What You Need

For each child and yourself

- 1 Fill the Hill game board
- 8½" x 11" card stock (It is helpful to have two colors.)
- 1 plastic container filled with plastic ants, yarn, and rice
- 1 piece of a cracker for each container

optional

- Anthill Recording Sheet (page 58 and as a perforated sheet in the back of this book)
- Fill the Hill card sets A and B for each pair of students (pages 59–60 and as perforated sheets in the back of this book)
- Pencils, markers or crayons

Session 3: Fill the Hill Cooperative Game

What You Need

For the whole group

- 8½" x 11" card stock (It is helpful to have five colors.)
- Envelopes (large enough to hold the card sets)

For each pair of children and yourself

- 1 Fill the Hill game board
- 1 plastic container filled with ants, yarn, and uncooked rice
- 1 piece of a cracker for each container
- Fill the Hill card sets 1-5 (pages 64–73 and as perforated sheets in the back of this unit)

optional

- Anthill Recording Sheet
- Pencil, marker, or crayon