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Digging for Clues Under the Ground

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DIGGING FOR CLUES UNDERGROUND

PRE-K-4

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National Science Teacher’s Convention
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UNDERGROUND CLUES

EXAMINE CROSS SECTION OF EARTH MODEL

QUESTIONS TO STIMULATE THINKING:

1. HOW MANY LAYERS OF THE EARTH?
2. WHAT ARE THE LAYERS MADE OF?
3. HOW DO SCIENTISTS KNOW ABOUT THE CENTER OF THE EARTH?
UNDERGROUND CLUES

MAKE MODELS:

PLAY DOUGH EARTH
LABEL LAYERS
APPLE EARTH
BOILED EGG EARTH
SCIENCE LITERACY (CHANGES IN THE EARTH BY KRISTA WEST)
UNDERGROUND CLUES

Other Topics to Consider:

* Rocks
* Earthquakes
* Volcanos

* The Magic School Bus, Inside the Earth by Joanna Cole
  explores rocks, volcanos and earthquakes
* Changes in the Earth provides model ideas

* Plants

* How Plants Grow, Angela Royston
* Tops and Bottoms by Janet Stephens

* Underground animals
* Habitats
UNDERGROUND CLUES

DEFINE “HABITAT”

A PLACE

PURPOSE?

EXAMPLES OF HABITATS

WHY ANIMALS NEED SPECIFIC HABITATS
UNDERGROUND CLUES

UNDERGROUND ANIMALS

Chart
Handout of underground and burrowing
www.enchantedlearning.com/coloring/Underground.shtml

Books
Let’s Look at Animals Underground by Claude Delafosse & Gallimard Jeunesse
The Diary of a Worm by Doreen Cronin
Yucky Worms by Vivian French
Look Once Look Again Underfoot by David M. Schwartz
Ants and Their Nests by Linda Tagliaferro
The ants go softly ‘round and ‘round.
Sh! Sh!
The ants go softly ‘round and ‘round.
Sh! Sh!
The ants go softly ‘round and ‘round,
They creep and crawl upon the ground,
And they all move closer,
Eyeing the picnic feast
HERE IS THE MOLE THAT LIVES UNDERGROUND.
CLOSE EYES AND PUT HANDS UNDER YOUR CHIN.
HERE ARE THE ANTS IN THEIR UNDERGROUND TOWN.
USE FINGERS TO SCURRY ON THE BACK OF THE OTHER HAND.
HERE IS A MOUSE IN HER WARM LITTLE DEN.
WRAP ARMS AROUND TORSO.
HERE ARE THE WORMS AND THERE ARE TEN.
HOLD UP HANDS AND WIGGLE TEN FINGERS.
HERE IS THE TURTLE WHERE HE LIKES TO HIDE.
MAKE A FIST (TURTLE’S SHELL) AND WIGGLE THUMB (TURTLE’S HEAD).
HERE ARE THE TOADS SITTING SIDE BY SIDE.
PLACE TWO CLOSED FISTS SIDE BY SIDE.
ALL OF THESE CREATURES LIVE UNDERGROUND.
POINT TO THE GROUND.
LOOK VERY CLOSELY OR THEY’LL NEVER BE FOUND!
MAKE BINOCULARS WITH HANDS AND PLACE THEM IN FRONT OF YOUR EYES.
UNDERGROUND CLUES

Technology:

Visual Websites

http://school.discoveryeducation.com/schooladventures/soil/
http://www.colegiobolivar.edu.co/library/underground_creatures.Htm
http://vi.sualize.us/view/df1a75b47faea18995cdd1aa0c18c1fb/
www.enchantedlearning.com/coloring/Underground.shtml

Activities:

http://www.yucky.com/flash/index.html

Technology Scavenger Hunt

Habitats and Adaptations

Worms
UNDERGROUND CLUES

Mathematics/Music:

*The Ants Go Marching One By One* (Scholastic)
*One Hundred Hungry Ants* by Elinor J. Pinczes
NATIONAL SCIENCE EDUCATION STANDARDS

K-4 STUDENTS SHOULD DEVELOP AN UNDERSTANDING OF:

THE CHARACTERISTICS OF ORGANISMS

- Basic needs
- Different structures
- Behavior influenced by internal/external cues

LIFE CYCLES OF ORGANISMS

- Birth, developing into adults, reproducing and dying
- Organisms closely resemble their parents
- Characteristics are inherited from parents; some result from interactions with environment

ORGANISMS AND ENVIRONMENT

- All animals depend on plants
- Patterns of behavior are related to the nature of that organism’s environment
- Organisms cause changes in the environment where they live
- Humans depend on their natural and constructed environment