



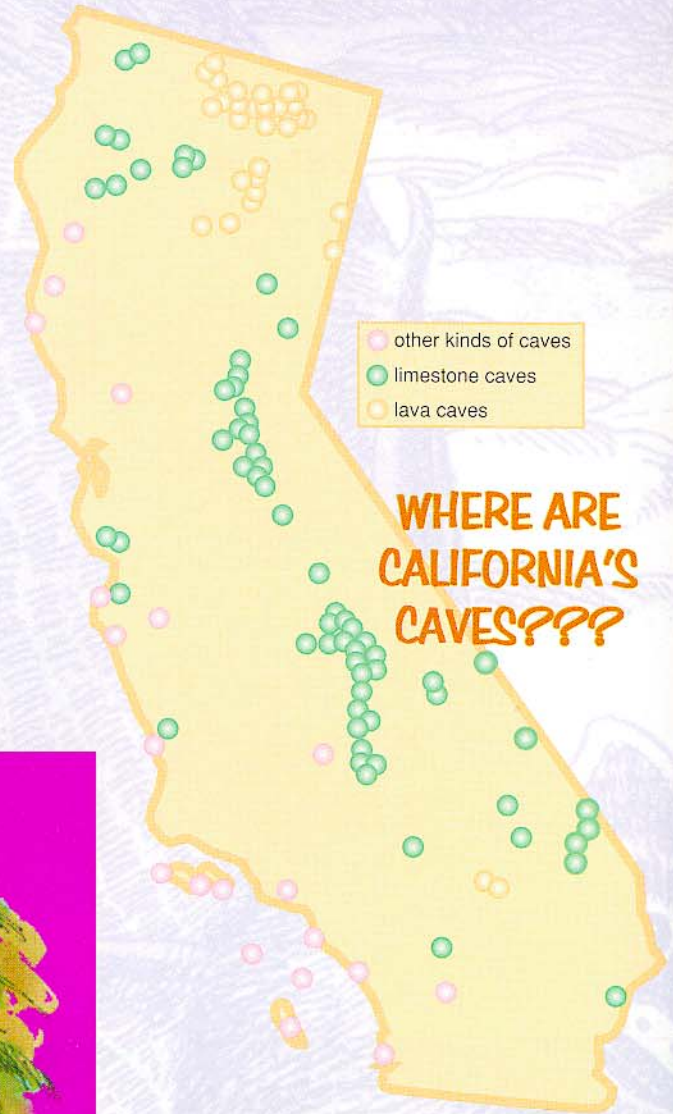
Exploring Caves

Designed for Kindergarten through Third grade students.

LIMESTONE CAVES

Most American caves are big holes that form in limestone rock. The holes begin as cracks in the limestone. Water flows down the cracks and dissolves the limestone. The cracks get bigger and bigger. They grow into underground streams, rivers, and even lakes. When water drains away, the waterways turn into open cave tunnels, passages, and caverns. It takes 10,000 to 100,000 years to form a cave big enough for people to move around inside.

Water drips constantly in caves. The drips dissolve limestone minerals in one part of the cave. As water dries out, the minerals build up in other places. In this way, beautiful cave rock formations and crystals grow over thousands of years. These rock formations change dark limestone caves into hidden fantasy lands.

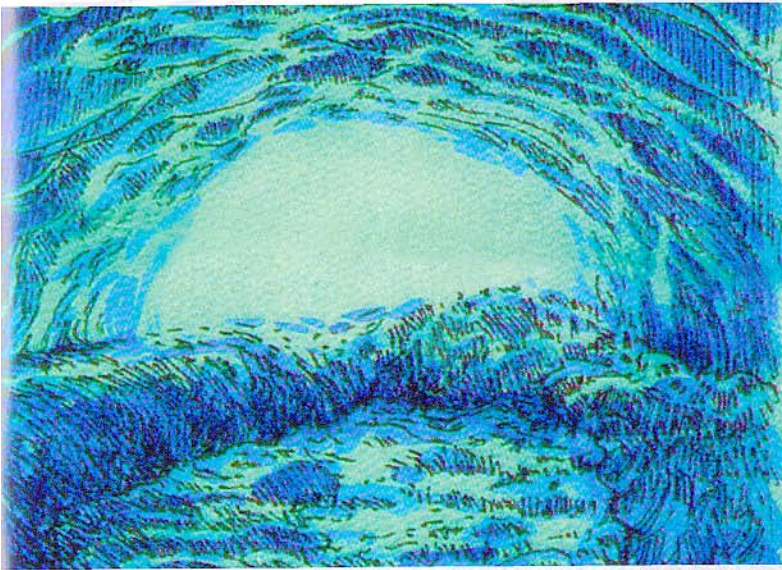


Lava caves are tubes that form when molten rock flows away from volcanoes. Cool air causes the rock to harden on the outside, and when all the lava has drained out, the tube becomes a cave.

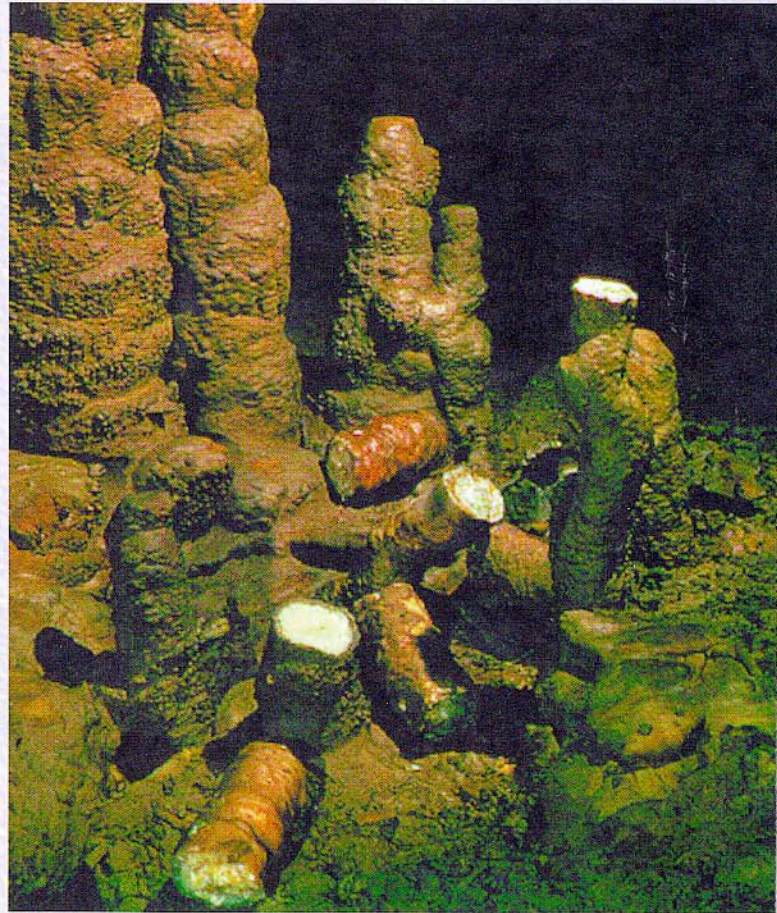
DAMAGE TO CAVE ENVIRONMENTS



Sea caves are formed by waves crashing on rocky coastlines.



Ice caves are formed by water flowing underneath glaciers. Light passing through the ice makes the caves blue.



When we visit caves, we must not harm anything. Trash can kill cave wildlife. Cave features take thousands of years to grow. A broken stalactite or stalagmite can't be put back together. Future visitors will want to see unspoiled caves as much as we do!!



Stalactites are icicle-shaped formations hanging from the cave ceiling. They're formed by dripping water that contains limestone. Each drop of water brings a tiny bit of rock. The rock is dissolved, like sugar is dissolved in tea. When the water dribbles down the rock, it leaves the dissolved rock behind. The stalactites get longer and longer. The rock formations grow a teeny bit every year, drop by drop.

Stalagmites are formed the same way as stalactites, but they are cone-shaped formations that build up from the cave floor.

Dripping water and rock take thousands of years to form cave sculptures. Sometimes people break the formations and they are gone forever.



People have used caves for centuries. In this cave, the children see paintings drawn by native people thousands of years ago.



Lots of cave animals...White crickets and beetles live on piles of bat droppings. They can't see in the dark. Instead, they use long feelers to find their way.

The word **TROGLO** means hole. Troglomen are animals who sometimes choose caves as their homes.

Cave and Cave-Related Books for Children

Caves by Ronald C. Kerbo. Children's Press, 1981. 48 pages. Cave formation and caver activities.

Caves by Jenny Wood. Puffin Books, 1990. 30 pages. Photos, activities and true stories.

Caves by Susan Rigby. Troll Associates, Our Planet Series, 1993. 32 pages. Cave geology and biology, as well as section on cave legends and human use.

Let's Explore Caves and Caverns by Connie Toops. Explorer Press, 1990. Activities and stories.

The Life of the Cave by Charles E. Mohr and Thomas L. Poulson. McGraw Hill, 1966. 232 pages. This book (it's a challenge to find) is probably the best all-around description of the cave environment written for young readers and adults.

Looking Inside Cave and Caverns by Ron Schultz. John Muir Publications, 1993. 46 pages. Spectacular photographs, good coverage of cave safety and different kinds of caves.

One Small Square Cave by Donald M. Silver. Scientific American Books for Young Readers, W.H. Freeman and Company, 1993. 50 pages. Comprehensive, well-illustrated book.

Stellaluna by Jenell Connon. Harcourt, Brace, and Company, 1993. 48 pages. The tale of a young fruit bat and her mother.

Taking Katy for a Nightride by Elin Menzies. Blue Cat Press, 1991. 20 pages. Easy reading.



The children see strangely shaped rocks and crystals all around them in the cave. A white fish with no eyes swims in an underground stream.

Cave and Cave-Related World Wide Web Pages

<http://www.batcon.org>

Bat Conservation International home page. Extensive database of information on bats, bibliography, teaching materials, articles, even bat sounds.

<http://www.batcon.org/topedu.html>

Educator's Activity Book About Bats (from Bat Conservation International). Teaching activities.

<http://www.caves.org/>

This is the home page of the National Speleological Society, with links to related topics.

<http://www.goodearth.com/showcave.html>

This site shows the location of show caves by state.

<http://www.goodearth.com/virtcave.html>

This site has excellent photographs of cave interiors.

Information taken from *EXPLORING CAVES* by the U.S. Geological Survey, Reston, VA 1997.