

Architecture in Nature: Bee House

All Grades

Goals of the lesson plan:

- Learn the important role bees play in our world, and how we can positively affect their habitat through the built environment.
- Build a bee house.

What do you know about bees? They buzz, they sting, and they live in hives! But did you know that bees pollinate flowers, trees, and even plants that humans eat? Bees are an important part of our ecosystem, and they are in trouble. Humans are negatively affecting their environment. However, there are things we can do to help them and learn about architecture at the same time! In this lesson, children will learn about architecture in nature, construct a mason bee house, and plant bee-friendly flowers to encourage mason bees to inhabit the bee house.

Many creatures in the animal world are architects and use materials from their natural surroundings to build their homes. Ants build ant hills, birds construct nests, and beavers create dams. Now go on a nature walk! Can you find any of the animal habitats on your walk?

Construct a bee house

Many people think of bees as living in hives. While many species do, Mason bees actually live in the ground, or in trees. Using different materials, you can make a mason bee house!

If you have access to reeds in your garden, collect several bunches and make sure they are dried. If you do not, paper straws work great. Do NOT use plastic straws. They are not breathable and are not healthy living spaces for bees. Paper straws are available at many online shops. White, un-dyed straws are best.

Choose which type of can you want to use. The larger the can, the more straws you will need. Small soup or vegetable cans work well. Measure the straws to be slightly longer than the length of the can. Cut straws to fit that length.

Take pre-cut straws and tie them into bunches. These bunches will be able to easily be put into cans. If you put individual straws in the can, straws will fall over. Put a light layer of glue in the bottom of the can, and spread it around with a paper towel to make it even. After several bunches are put together, fit them into the can.



Fill empty spots with individual straws. Pour 1 cup of peat moss into the can. Peat moss makes it smell earthy and inviting to mason bees. Do not tip upside down, or you will spill peat moss! Tie a string or thin rope around the can, making a loop at the end so you can hang the house from a tree branch. You can choose to keep on your deck or on the ground outside if you do not have a tree to hang it from.

Decorate your can! Use construction paper, markers, and tape to bring some art to your bee house! Just remember, if you are putting your bee house outside where it can get wet, your design will get wet, too.

Note to parents: The straws do not all have to be the same length, as shown in the image above.

Terra cotta pots

When choosing a pot, a small terracotta pot is an inexpensive and easy option. But you can use any pot you have at home if you want. Fill the pot with potting soil. Miracle Grow or organic potting mix with fertilizer works great. Have children plant large seeds (cosmos) that are attractive to bees. There are many varieties of seeds that are good for bees, but cosmos are the perfect option. Put the pot in the window over the next few weeks to help it grow. It needs sunlight and water. Once it sprouts, the garden can be planted into the ground near your bee house, or placed near the bee house to help make bees feel comfortable. You may also tell the kids to place a small, thin plate of water. Bees need water, too!



Materials:

Terra cotta pots

Potting soil

Cosmo seeds (or other bee friendly variety)

Metal can- coffee, vegetable or soup

Peat moss

Paper straws or hollow, dried reeds

Glue

String to hang can

Vocabulary

Mason bee

Architecture

Affect

Built environment

Ecosystem

Pollinate