Make a Bee Hotel

The European honeybee is famously social and known for living in large hive colonies. However, most Oregon native bees are solitary. Females of solitary bee species create their own individual nest sites to lay eggs, either in a cavity or in an underground burrow.

About 25% of bees nest in solitary cavities. Some build nests in human-made shelters, like the one we are constructing today. Others nest in natural cavities, such as cracks in stone, hollow stems, or holes in wood.

One common cavity-nesting bee in Oregon is the blue orchard mason bee. Mason bees use collected mud to design their nest spaces. They are also very efficient pollinators and well-known for their fruit tree pollination, making them extremely important to the agriculture industry.

Materials needed:
- Milk container or plastic bottle
- Scissors
- Paper bags or newspaper
- Pencil
- Tape
- String

Step-by-step instructions:
1. Carefully cut the top off a milk container or plastic bottle so it is 8 inches deep.
2. Cut several pieces of paper that are 6 inches long and 4 inches wide, then wrap each piece around a pencil to form a 6-inch long tube. Add a piece of tape to keep the tube rolled.
3. Make several tubes and add them to your container until they fit snugly and do not shift when the container is moved. Ensure tubes are pushed all the way to the back of the container. The extra space at the front will give the hotel a rain-protected porch.
4. Tie string around the container to make a hanger. It should hang parallel to the ground with the tube openings facing to the side.
5. Hang your bee hotel outside, ideally facing south and 3-6 feet off the ground.
6. If it is rainy, move your bee hotel to a cool and dry protected area to ensure that the bee pupas can develop without getting wet and moldy.
7. Make sure to clean and/or replace your paper tubes each spring to avoid any mold or diseases that could harm bees.
8. All pollinators need a good source of water as well! Consider providing a dish of water with small stones for the pollinators to stand on.

Discussion questions:
- What does a pollinator need for a healthy habitat?
- Do different pollinators have different needs?
- What other resources do bees need access to, besides shelter?
- What else could you add to your yard or park to create a healthy pollinator habitat?
Additional resources:
Xerces Society Pacific Northwest Resource Center: xerces.org/pollinator-resource-center/pnw
OSU Extension Bees and Pollinators Resource Page: extension.oregonstate.edu/gardening/pollinators