

Beneficial Bat House

1

Overall aims:

- Engage with nature;
- Emphasize with nature;
- Respect others, animals and nature;
- Respect the environment of animals

2

Vocabulary - keywords

Animals; Bat species; Bat house.

3

Sustainable abilities developed

Systematic thinking competency
Strategic competency
Critical thinking competency
Collaboration competency

4

Pillars of sustainability included

Environmental sustainability.

5

STEAM domains

Science, Engineering, Art

6

Teaching methodologies/activity outline

The science behind the fun

There are more than 1,200 species of bats found nearly worldwide. A wonderful way to support your local bat species is by putting up a bat house.

Bats typically find a nice, cozy space under the bark of a tree to give birth and raise babies, but as humans continue to alter global habitats, there are fewer and fewer suitable trees in many areas of the world. Building a bat house is a great way to encourage bats in your area to take shelter in your yard as they raise their young and control pesky mosquito populations. In this lab activity, you'll build and mount a bat house to support these incredible flying mammals.



Safety Tips & Helpful hints

- If someone at your school has woodworking tools and experience, consider designing and constructing your own bat house. For most people, it's easiest to construct a bat house from a kit purchased online.
- Be sure not to handle bats or their droppings (also called guano), as some species can carry rabies. Consider placing a disposable ground covering, such as a plastic trash bag or butcher paper, below the bat house to collect guano for disposal.

Procedure

1. Build your bat house and ask for help to the teacher, if you need it. Before the house is complete, use a screwdriver or chisel to rough up the wood that will become the inside of the house and make it feel more like tree bark.
2. Consider using wood stain to seal and waterproof your bat house. You may also glue pieces of tree bark to the outside of the bat house to make it look more natural and to give visiting bats something to grip. Sketch your final product in your lab notebook, through teacher's guide and assistance.
3. Mount your bat house to the side of your school or other outdoor structure in a quiet, sunny spot with good flight access from below (bats will fly down in front of the house and then up into the cavity). Regularly check on the house to see if any bats are using it, especially in the evening around sunset. How long did it take for a bat to use the house? What time of year was the house most popular?

Creative Enrichment

Bats are marvelously diverse, representing roughly 20 percent of all mammal species on the planet. Chances are good that several different species live around your house, so take some time to visit your school library or do some online research to become familiar with the bats in your area. Use your binoculars to watch the bats that fly in and out of your bat house. Can you identify the species? Pay special attention to their size and color when trying to remember important body features that will help with identification. And remember to share what you learn!

7 Expected learning outcomes

The child will be able to

- Follow instructions;
- Engage with nature;
- Develop senses.



8	<p>Assessment</p> <p>The evaluation is implemented through observation of the activity by the teacher who assesses pupils' commitment and participation.</p>
9	<p>Equipment and materials to be used in learning unit (tools, ingredients etc)</p> <ul style="list-style-type: none"> ● Bat house kit ● Common tools (screwdriver, power drill, hammer, etc.) ● Wood stain ● Paintbrush ● Non-toxic waterproof glue ● Tree bark ● Mounting hardware
10	<p>Kind of setting - lab, kitchen, outdoor etc.</p> <p>Outdoor</p>
11	<p>References - source:</p> <p>M. Reinbold, <i>Animal Exploration Lab for Kids</i>, Quarto Knows, San Diego (USA) 2020, pp. 134-135</p>

