

Insect Hotels

ACTIVITY OVERVIEW

STEM Focus Area: Nature Play

Facilitator Learning Goal: Youth will understand what materials and conditions insects find favorable to live in.

Youth Learning Target:

- “I can help animals by creating habitat.”

LEARNING ENVIRONMENT

Activity Duration: Day 1 - 30 minutes, Day 2 – 30 minutes, Days 3-5 – 5-10 minutes

Class Size: Any Size

Minimum Group Size: none

Type of Space: Outdoor

Age of Youth: Grades 3-4

Guiding Question: What is the question to explore OR the problem or challenge to solve?

Can you build a nesting habitat for insects?

Through this activity, youth will:

- Predict and hypothesize what kinds of materials would be best to use to build an insect hotel.
- Observe and investigate where insects can be found and the types of places they nest in.
- Observe and investigate if insects have moved into their hotels.
- Record observations of insects living in their hotels.
- Analyze and infer what parts of their hotels are successful, what could be improved.
- Share and communicate data with classmates.

Facilitator Prep:

Facilitators should do a quick web search for insect hotels to understand the types of materials used in building them.

Literacy Connection: Great books to get youth support learning about (available on Amazon).

- [Hotel for Bugs by Suzy Senior](#)
- [Peep Inside Bug Homes by Anna Millbourne](#)
- [Bug Hotel by Libby Walden](#)

DoS:

- ✓ **Predict and hypothesize**
- Develop and use models**
- Measure materials**
- ✓ **Observe**
- ✓ **Investigate**
- ✓ **Record observations**
- ✓ **Analyze and infer**

- ✓ **Share and communicate data**
- ✓ **Interpret data**
- ✓ **Test and revise**
- ✓ **Draw conclusions and relationships**
- ✓ **Have voice and agency, make decisions and guide their own learning**

PREPARATION

Materials

Initially, this activity will only require paper and pencils. Youth will be designing their own insect hotels and creating their own list of materials that they may need to find from recycling or collecting outdoors.

Room

This activity will take place both indoors and outdoors. Youth observations will need to take place outside but building the hotels can take place indoors in any kind of room set up.

Content

Many insects are beneficial to have around because they pollinate our plants or eat pests. Many insects are cavity nesters and nest in leaf litter. People can help these insects find habitat by building insect hotels out of natural and recycled materials.

Inquiry

Your primary goal as facilitator is to encourage youth to design and build their own insect hotel. You can prompt those discussions with questions like the following:

- Where do you find insects outside?
- What kinds of temperatures do insects like?
- Where do you think you should put your hotel?
- What kinds of materials do you think insects would prefer?
- Are you planning for insects to be able to hibernate in your hotel? If so, are there any considerations you should make?

DoS:

- ✓ **Organization:** I practiced the activity/technology, prepared materials/extras/place to record youth ideas, completed an activity (including timings).
- ✓ **Materials:** Materials are appropriate for teaching the learning goals; youth will be able to use them and will think they are appealing.
- ✓ **Space Utilization:** The space is set up appropriately for the activity and there will be no safety issues or distractions.
- ✓ **Relevance:** I have researched why the content matters to youth's everyday lives.
- ✓ **Content Learning:** I have become familiar with the content.
- ✓ **Inquiry:** I have become familiar with how authentic, age-appropriate inquiry practices look in this activity.

INTRODUCTION TO ACTIVITY (5 MINUTES)

Discuss with youth for examples of bug homes. Examples could be ant hills, termite mounds, bee hives, in the dirt, etc.

Read through the book [Bug Hotel](#) by Libby Walden and discuss what critters were in the book. Explain that we're going to build our own bug hotels to help insects find shelter.

DoS:

- ✓ **Space Utilization:** I will use the space informally avoiding the lecture hall format.

- ✓ Purposeful Activities: This intro section gets youth on track for the learning goal.
- ✓ Content Learning: If age appropriate, I will accurately present content.
- ✓ Inquiry: In this or another section of the activity, youth carry out one or more inquiry practices.
- ✓ Relationships: I will make each youth feel welcome.
- ✓ Relevance: In this or another section, I will guide the youth in a sustained discussion of how the activity relates to their everyday lives.
- ✓ Youth Voice: In this or another section, I will allow youth the opportunity to make decisions about their learning experiences.

ACTIVITY ENGAGEMENT (20 MINUTES)

This activity will take place over several days (really as long as you wish to take observations).

For the first day, take youth outside to explore and discover where insects are living. Have them write down the locations they are finding insects, is it cool? Hot? In the shade? Sun? Under rocks? Under wood? In dirt? In grass? Whatever their observations are. After about 10 minutes of exploration, have youth come back inside and divide them into working groups.

In their small groups, have them share their observations and discuss what conditions they think are ideal for insects to thrive. Then have them sketch a design for their hotel and brainstorm a list of materials they will need to build it.

Day two, have the groups build their hotels and place them outside where they think the conditions are most favorable.

DoS:

- ✓ Space Utilization: I will use the space informally avoiding the lecture hall format.
- ✓ Participation: All youth will have access to the activity.
- ✓ Purposeful Activities: This core section helps youth to move toward the learning goal.
- ✓ Engagement: This activity has youth physically engaged with their hands and their minds.
- ✓ Inquiry: In this or another section of the activity, youth carry out one or more inquiry practices.
- ✓ Reflection: If appropriate, I will ask youth questions during the core activity that will help them make sense of what they are learning.
- ✓ Relationships: I will take steps to share my enthusiasm and create a nurturing, safe learning environment.
- ✓ Relevance: In this or another section, I will guide the youth in a sustained discussion of how the activity relates to their everyday lives.
- ✓ Youth Voice: In this or another section, I will allow youth the opportunity to make decisions about their learning experiences.

FINAL REFLECTION AND RELEVANCE (5 MINUTES)

For the next several days (or as long as you wish to continue observations), have youth observe their hotels, looking for evidence that insects are living in it.

- What kinds of insects are they finding?
- Why might insects not be living in their hotel?
- Are there any changes they should make to encourage more insects to move in?

DoS:

- ✓ Space Utilization: Again, I will use the space informally.
- ✓ Participation: I will prompt youth who do not have access to the activity to participate.
- ✓ Purposeful Activities: The closing section helps youth to reach the learning goal.
- ✓ Content Learning: I will help youth make connections between different ideas. I will create opportunities for youth to ask questions/provide ideas that show a deeper level of understanding.

- ✓ Inquiry: In this or another section of the activity, youth carry out one or more inquiry practices.
- ✓ Reflection. I will provide youth with a sustained opportunity to make sense of their learning.
- ✓ Relevance: In this or another section, I will guide the youth in a sustained discussion of how the activity relates to their everyday lives.
- ✓ Youth Voice: In this or another section, I will allow youth the opportunity to make decisions about their learning experiences.

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