

Mrs. Norman from Pepper Construction visited our classroom in February and was so impressed with room 205 that she wanted to reward the students with a special gift. That special gift was butterflies!

She was kind enough to send us a butterfly kit, fully supplied with real live butterfly larvae! The butterflies have been growing since March, and are now in their Chrysalis. We will have full Pink Lady Butterflies in a few short weeks! She was kind enough to send us about 12 butterflies. We now take full responsibility of these amazing creatures.

The students observed that these wonderful butterflies had only one living space, in which they all will share. They saw this as a potential problem! Butterflies need lots of space and sunlight to survive. All 12 butterflies cannot live in one small space, so we decided to think of ways to solve this problem!

As a class we came up with the Butterfly Habitat Design Challenge. The students will form groups to create a functioning, safe habitat for our class butterflies.





Butterfly Habitat Challenge

PBL Expert Roles

Design Team Expert Roles

Design Team Leader

As the Design Team Expert, your role is to make sure that your team finishes in time. You will lead and keep track of all planning, encourage communication among engineers, and make sure that all members of the team know and understand all parts of the plan. Team members will present your final design.

Materials Engineer

As the materials manager, your role is to make sure the materials your team chooses to use will help serve a purpose. You will help your team identify the materials needed to build the habitat based on the diagram. Team members will present the final design.

Graphic Designer

As the graphic designer, your role is to make sure the diagram is complete before your team begins to build the habitat. Make sure all of your materials are labeled in your diagram. Team members will present the final design.

Product Engineer

As the product engineer, your role is to make sure the habitat is functional and allows for the butterfly to survive and thrive. You will help your team decide on the butterfly habitats needs. Team members will present the final design.

Title: Butterfly Habitat Design Challenge

Problem: Create a butterfly habitat for our classroom butterflies

Challenge: Design a functioning, sustainable butterfly habitat, which allows for the butterflies to survive and thrive.

Criteria: You must draw, label, and create your design. There will be various materials given for each team to utilize.

Constraints:

- Habitat has to be no bigger than 11.5 inches to 3 feet tall
- Have a covering which allows for sunlight to enter
- A place for food and water
- Durable and sturdy enough to carry

Materials: Netting, cardboard, wood pieces, plastic trays, tape, string



Butterfly Habitat Challenge

PBL Reflective Questioning

1. Did you meet your criteria for constructing the habitat? What were your constraints?

2. What were your group's goals for the habitat? Did the goals change? _____

3. How do you feel about the habitat? Do you like or dislike the habitat you created?

4. How did you like working in your group? What was your job in the group?
