THE BUG MOTEL

DEFINE

At Harelson, a lot of kids need the bathroom. However, the girls bathroom sometimes has a lot of bugs! No one wants bugs in the bathroom, so I wanted to help make a solution to this problem!

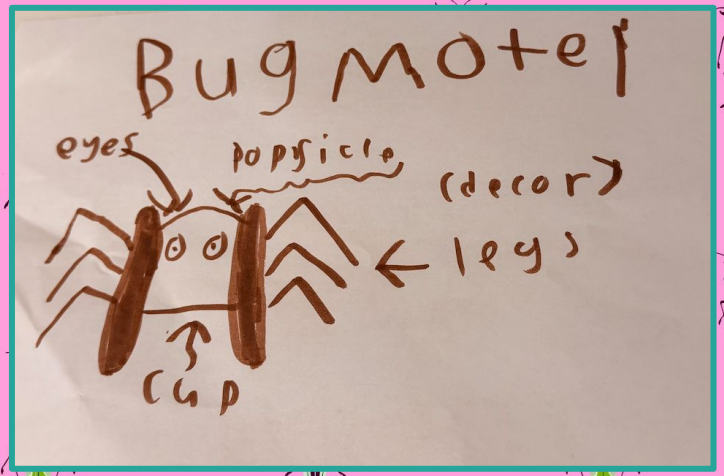
IDENTIFY

1. The bugs might not like the "Bug Motel", so that wouldn't fix the problem.
2. The bugs might not like the bait in the Bug Motel.
3. The bugs might not stick to the bait

BRAINSTORM

IDEAS:

- Bugs need to like the bait
- Needs to be able to trap them
- Needs enough room for the bugs to be able to crawl into the Bug Motel
- Something safe and see-through



MATERIALS

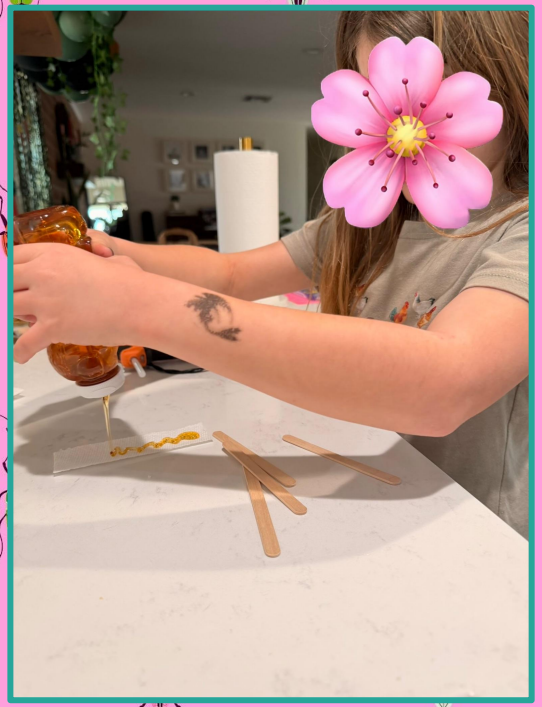
- 6 large popsicle sticks
- 3 small popsicle sticks
- Hot glue gun (with my mom's help)
- Clear plastic cup
- Paper towel
- Honey or peanut butter (bug bait)

STEPS OF DESIGN

1. Gather supplies
2. Build the base: hot glue two large popsicle sticks together to make one strong stick
3. Make 2 bases: repeat step 2 so you have two strong popsicle stick bases.
4. Place the bases: put 2 bases on the floor a cup length apart

STEPS OF DESIGN

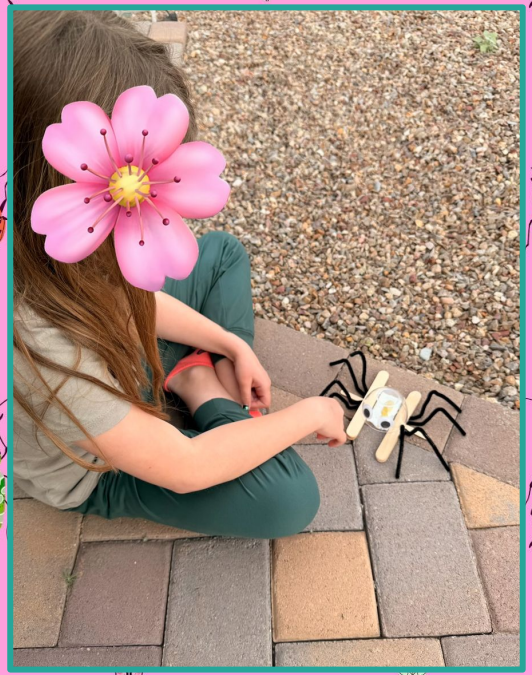
5. Add the cup: put the plastic cup upside down on top of the sticks
6. Leave an opening: make sure there is a small space under the cup for the bugs to crawl in the Bug Motel.
7. Add the bait: put honey or peanut butter on a paper towel and slide it under the cup
8. Test and observe: wait for bugs to crawl inside! Once they are inside the Bug Motel, pull the handles of the base to trap them inside the cup.



PROTOTYPE

TEST: BUG MOTEL #1

1. I placed the Bug Motel in a place that would attract bugs.
2. I added honey to the paper towel
3. I waited to see what the bugs would do.
4. After a while, a bug crawled under the cup. He stuck to the honey, but I noticed it was hard to pull the bases out from the cup to trap them.



ITERATE/IMPROVE

PROBLEMS I FOUND:

- It was hard to move the trap without handles to pull the base out from under the cup.

HOW I FIXED IT:

- I added handles to more easily pull the base out from under the cup to trap bugs better in the Bug Motel.

TEST: BUG MOTEL #2

1. I placed the Bug Motel in a place that would attract bugs.
2. I added honey to the paper towel
3. I waited to see what the bugs would do.
4. After a while, a bug crawled under the cup. He stuck to the honey, and the handles made it much easier to trap the bugs quickly inside the Bug Motel.

COMMUNICATE

WHAT I LEARNED:

- The prototype helped me learn what I could do better
- Testing the Bug Motel helped me improve my design

WHY IT WORKS:

- Solves a real girls bathroom problem
- It's safe and reusable
- Lets me look at the bugs through the clear cup and be able to release them back into nature so they don't have to be killed.

WHY DID THE BUG BRING A SUITCASE TO THE GIRL'S BATHROOM???

Because he was checking in to the

BUG MOTEL!