



TITLE: Making a Mini Robot Bug

GRADE LEVEL: 3rd

STEAM AREAS:

Science, Technology, Engineering

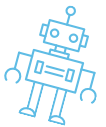
MATERIALS NEEDED:

- Cardboard
- Hot glue gun
- Scissors
- Toothpicks
- Yarn
- Beads
- Marker



OBJECTIVES:

- Students will be able to identify the different parts of a robot.
- Students will be able to assemble a mini robot bug.
- Students will be able to explain how the different parts of the robot work together.



PROCEDURE

Introduction (10 minutes)

The teacher will introduce the topic of robots. They will ask students what they know about robots and what they think robots can do. The teacher will then show students the YouTube video and ask them what they notice about the mini robot bug. Students will be able to identify the different parts of the robot, such as the wheels, the body, the legs, and the antennae. They will also be able to explain how the different parts of the robot work together.

Activity (80 minutes)

Students will work in groups of 2-3 to assemble their own mini robot bugs. They will use the cardboard, hot glue gun, scissors, toothpicks, yarn, beads, and marker to create their bugs. Students will be able to use their creativity and imagination to decorate their robots however they like.

1. Preparation:

- Gather all of the materials needed for the activity, including cardboard, hot glue gun, scissors, toothpicks, yarn, beads, and marker.
- Cut out the cardboard pieces needed for the robot bodies, legs, and antennae.
- Pre-cut the yarn into small pieces for the robot hair.
- Pre-make the beads into small balls for the robot eyes.

2. Instructions:

- Divide the students into groups of 2-3.
- Give each group a set of materials.
- Have the students assemble their robots according to the following steps:
- Attach the cardboard body to the cardboard legs.
- Attach the cardboard antennae to the cardboard body.



Procedure

- Use the hot glue gun to attach the yarn hair to the cardboard body.
- Use the hot glue gun to attach the bead eyes to the cardboard body.
- Once the students have assembled their robots, they can decorate them however they like.

Here are some additional tips for the Activity section of the lesson plan:

- Encourage students to be creative and to use their imaginations when decorating their robots.
- Provide positive reinforcement as students are working and sharing their robots.
- Have students work together to solve problems and overcome challenges.
- Allow students to take breaks as needed.
- Be patient and understanding as students are working.

Discussion (10 minutes)

After the students have completed their robots, they will share them with the class. The teacher will lead a discussion about the different parts of the robot and how they work together. Students will be able to explain how they decorated their robots and why they chose to decorate them in that way.

Here are some specific questions that the teacher can ask during the discussion:

- What are the different parts of a robot?
- How do the different parts of a robot work together?
- What materials did you use to make your robot?
- How did you decorate your robot?
- Why did you choose to decorate your robot in that way?

Assessment (10 minutes)

Students will complete a worksheet about robots. The worksheet will ask students to identify the different parts of a robot, explain how the different parts of a robot work together, and describe how they decorated their robot.

Here are some specific questions that the worksheet can ask:

- Identify the different parts of a robot.
- Explain how the different parts of a robot work together.
- Describe how you decorated your robot.
- Why did you choose to decorate your robot in that way?

The teacher can use the worksheet to assess students' understanding of robots. The worksheet can also be used to provide students with feedback on their work.

Assessment

After students have completed their mini robot bugs, the teacher can have them complete a worksheet about robots. The worksheet can ask students to identify the different parts of a robot, explain how the different parts of a robot work together, and describe how they decorated their robot.

References

- <https://www.youtube.com/watch?v=TFkUan5Uujs>
- <https://thekidshouldseethis.com/post/diy-mini-robot-bug>
- <https://www.instructables.com/Mini-Bug-Robot-in-5-Minutes-/>