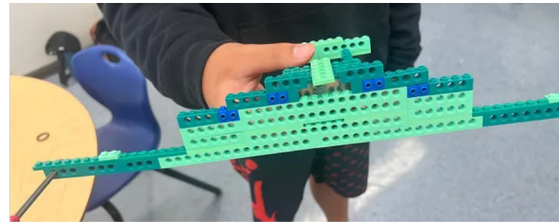# Beach Clean - Up Day!

STEM
(60 min)

Materials:

- Robots
- 6-8 Beach Clean-Up mats
- Chrome Book or lap top
- TV Remote Control
- WhyBricks

LET'S CLEAN UP THE BEACH!

Set up:

1. Lay out 5-8 Robotics Maze mats. We suggest using an open room for this activity or outdoors in a shady area. There can be up to 4 students per mat.
2. Let students get a robot and a tray of Why Bricks or other building bricks.

KINDER-3RD GRADE

Instructions:

1. First, get the students excited for todays challenge! You could say, "This beach is a mess, we need some helpers who can clean it up, let's build a beach cleaning robot!"
2. Instruct the students take their robots down to one of the Beach Clean-up Mats Mats. Three to four students can be at one mat.
3. Demonstrate how to Barcode scan the CLAP CARS. The instructions to do this are on the mat. They can also code remotes to help them drive their robot.
4. Their challenge will be to build a beach clean up robot. They can use the Why Bricks and Legos to do this. Remind them to not cover the buttons! Highlight different students ideas as they build their beach clean up bot. Remind them that they can test and then redesign if needed.
5. They will place their robot on on the robot outline on the mat and now they can clap their way around the mat trying to get all the trash off the beach. One clap makes the robot turn and two claps makes the robot go forwards. The students can go one at a time cleaning up the trash or they can work all together to clean it up.

4TH-5TH GRADE

Instructions:

1. First, get the students excited for todays challenge! You could say, "This beach is a mess, we needs some help cleaning it up!"

2. Instruct the students take their robots and their laptops down to one of the Beach Clean-up Mats Mats. Three to four students can be at one mat.

3. They will do a Why Bricks build on top of their robots. Remind them to not cover the buttons on top. *Just the build might take an entire class period. Allow them time to build a good device that can get the trash off the beach.

3. Then the students will open their laptops and go to EdBlocks at: https://www.edblocksapp.com

5. They will create a program on EdScratch by stacking blocks to the start position. They will choose in the drive tab either forwards, backwards, spin left and spin right. They can stack as many as they want for this challenge. Their job is to try and get as much trash off the beach!

HOLLIE'S HELPFUL HINTS!

1. Encourage the students to create a build that will be able to push out as much trash as possible.

2. They can even time each other to see who can get the trash out the quickest!

3. Remember it may take a few days for students to improve their design and code for their robots. Reward them when they have a good program written!

BEACH

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6TH-8TH GRADE

Instructions:

1. First, get the students excited for todays challenge! You could say, "This beach is a mess, we needs some help cleaning it up!"

2. Instruct the students take their robots and their laptops down to one of the Beach Clean-up Mats Mats. Three to four students can be at one mat.

3. They will do a Why Bricks build on top of their robots. Remind them to not cover the buttons on top. *Just the build might take an entire class period. Allow them time to build a good device that can get the trash off the beach.

3. Then the students will open their laptops and go to EdScratch at: https://www.edscratchapp.com/.

5. They will create a program on EdScratch by stacking blocks to the start position. They will choose in the drive tab either forwards, backwards, spin left and spin right. They can stack as many as they want for this challenge. Their job is to try and get as much trash off the beach!

HOLLIE'S HELPFUL HINTS!

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3. Remember it may take a few days for students to improve their design and code for their robots. Reward them when they have a good program written!

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