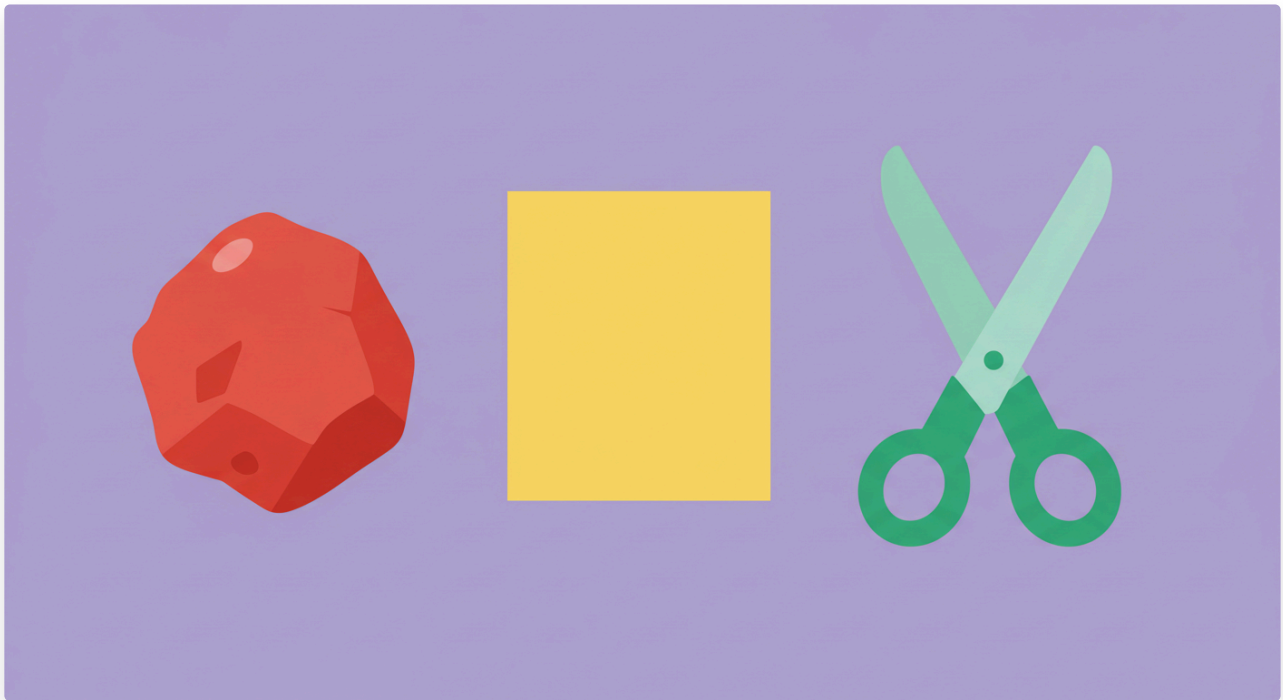


Team Project

Textbook

Team Project



Program a game of Rock, Paper, Scissors. Rock, Paper, Scissors is a game where each of the three shapes can defeat and be defeated by the other shapes.

As a team, work together to build the code for this game. You will each build the game on your own devices but can work together to program it. When finished, you should have two functioning robots that can play Rock, Paper, Scissors.

Learning to code and solve problems can be tricky, and sometimes you might get stuck.

When you're working on this Rock, Paper, Scissors game (or any project), remember to:

- **Try Again:** If your code doesn't work the first time, make adjustments, ask questions, and test different ideas until it works.
- **Keep Working:** When things are tricky, keep trying and focus on solving the problem. That helps you learn and have fun while you work.
- **Work Together:** If someone on your team needs help, you can work together to fix the problem. And if you're stuck, it's okay to ask a friend or teacher.

The specific requirements for this project are in the challenge section. If you need help remembering how to code something, go to previous lessons to help you.

In this project, you'll collaborate with your team throughout the design, implementation, and review phases of creating a Rock, Paper, Scissors game. Each member will rotate through different roles to experience various aspects of the program development process.

Working as a Team

When you work in a team, how you talk and listen is very important!

- **Listening:** When someone shares an idea, wait until they're done and listen to what they're saying. Then you can share your ideas too.
- **Sharing Your Ideas Clearly:** When it's your turn to talk, explain your thoughts clearly. You can say, "I think we should do this part because..." and explain *why* your idea makes sense.
- **Adding to Ideas:** You can add to your teammate's idea to make it even better. Try saying, "Let's also try this!" when you have a new idea.
- **Asking Questions:** If you don't understand something, ask! It's okay to ask your teacher or your friends. Errors are just chances to learn!

Team Roles

Here are some examples of roles:

1. **Navigator:** Guides the team, proposes solutions, and keeps everyone on track.
2. **Developer:** Writes the actual code to implement the game logic.
3. **Time Manager:** Ensures the team stays on schedule.
4. **Quality Control:** Reviews and tests the code to make sure it works correctly.
5. **Documentation Lead:** Keeps track of the development process and writes comments or reports.

By trying different roles, you'll learn how to code and how to work well with others. Everyone gets a chance to help the team and learn something new.

Questions (1)

1. Did you read the Team Project instructions?

MULTIPLE CHOICE

Choose the correct answer:

- A. Yes
- B. No

Robotics Challenges (1)

1. Rock, Paper, Scissors

Challenge

Textbook

Rock, Paper, Scissors

Code the micro:bit to randomly select Rock, Paper, or Scissors. To do this, you will need to create a variable called "tool" and use the block that says "set tool to 0." Then, set the tool to pick a random number between 0 and 2 and assign a rock, paper, and scissor icon to each number.

If other students in class have the micro:bit, consider finding another and playing a game of Rock, Paper, Scissors using your robots and seeing who wins!

Note: Use the second 'pick random 0 to 10' block in the math category.

Adapted from [micro.bit.org projects](https://micro.bit.org/projects)

Requirements

Program the code to begin when the micro:bit shakes

Set the tool to randomly select a

Step 1

Begin with the **on shake** block.

Rock, Paper, Scissors Step 1 of 5



1

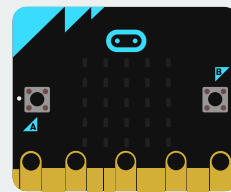
Next

Toolbox

Search...

- Basic
- Input
- Music
- Led
- Radio
- Loops
- Logic
- Variables
- Math
- Extensions
- Advanced

forever



Download

Answer Keys & Solutions

Questions

1. Did you read the Team Project instructions?

MULTIPLE CHOICE

Correct Answer:

- | | |
|--------|-------------|
| A. Yes | ✓ Correct |
| B. No | ✗ Incorrect |