



Here are some unplugged activities for the first week of school when you are just getting things set up.

Robot Design Challenge

- **Objective:** Encourage creativity and introduce basic engineering concepts.
- **Activity:** Students work in small groups to sketch their own robot designs on paper. They can label the different parts and describe the robot's intended function.

Scavenger Hunt

- **Objective:** Familiarize students with the components used in VEX Robotics kits.
- **Activity:** Hide VEX Robotics parts around the classroom. Provide students with a list of parts to find and match them with their names and potential functions.

Team Building with “Robot Roles”

- **Objective:** Promote teamwork and communication while understanding the different aspects of a robotics project.
- **Activity:** Students are assigned different "roles" in a mock robot team (e.g., programmer, designer, builder). They discuss how each role is crucial to a successful robotics project.

Engineering Process Storytime

- **Objective:** Introduce the engineering design process in a relatable way.
- **Activity:** Share a story or case study about the engineering design process, emphasizing the steps from brainstorming to testing. Students then discuss how they would approach solving a problem.

Human Robot Game

- **Objective:** Teach the importance of precise communication in programming and robotics.

- **Activity:** One student acts as a "robot," and another gives them step-by-step instructions to complete a simple task, such as stacking blocks. The rest of the class can offer suggestions for more efficient instructions.

Robotics Vocabulary Match

- **Objective:** Build foundational knowledge of robotics terms.
- **Activity:** Create a matching game with robotics-related vocabulary (e.g., sensor, motor, chassis) and their definitions or images.

Problem-Solving Scenarios

- **Objective:** Encourage critical thinking and problem-solving skills.
- **Activity:** Present students with hypothetical problems that could occur in a robotics project (e.g., a motor doesn't work, or the robot keeps veering off course). Have them brainstorm potential solutions.

Robotics History Timeline

- **Objective:** Provide context and appreciation for the evolution of robotics.
- **Activity:** Students create a timeline of important milestones in robotics history, either individually or as a group.

Robotics Ethics Debate

- **Objective:** Develop critical thinking and communication skills while exploring the societal impacts of robotics.
- **Activity:** Hold a debate on ethical questions related to robotics, such as the role of robots in the workforce or the use of robots in everyday life.

These activities will help students get excited about robotics while laying a solid foundation for the more technical aspects you'll explore later in the year.

Hey Kathleen! I teach high school robotics and use VEX. I started with IQ because I liked the fact that you could build the robot and have pieces left over for some engineering builds without dismantling the robots. I also have been using the V5 and the Workcell. but I am really excited about the new AI robot and the new VEX CTE Workcell. What makes everything great is that all the platforms are connected with the same coding software (VEXcode). That gives both a smooth transition for students, but also a way to challenge them as they can move from Block to Python. In my class I do a mixture of both VR and physical robots. That offers the students variety, building experience, and flexibility if they are working from home. There are scope and sequences available to help with planning your course online as part of the teacher resources. Good Luck!

Here's a link to help you: <https://www.vexrobotics.com/v5/education>