

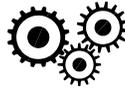


Instructors Guide to:

Challenge Swap

This activity allows the workshop participants a chance to write their own LEGO™/ROBOLab™ activity. The participants then switch activities and try them out. This allows for discussion of what makes a good design problem, how to create constraints for students, and how long it takes to solve a challenge.

It may be advisable to have the participants choose who will do the activity they create before they begin writing. Participants may be paired by skill level. During writing, it is important for the instructor to provide feedback to the participant about whether or not a challenge is feasible given time, space, and material constraints. Once the participants have swapped challenges, encourage participants to ask the challenge writer any questions they have (as opposed to the instructor). Stop at the end of the given time limit regardless of participants' progress on their challenges. Part of the activity is focused on thinking about the time it takes to complete a challenge.



In the Classroom:

Grade Level: 3-12

Building Skills: Varies

Time: 90 min

Programming Skills: Varies

Challenge Swap



It's time to test the skills of your peers! Design a challenge for someone in your class and try out a challenge he or she has written.

Challenge

It's your chance to create the building or programming challenge for your peers. You will write a challenge that includes an objective, materials list, procedure, and methods of assessment. Then trade with someone else in the class, and try to solve his/hers!

Materials

Paper and pens/pencils

Additional materials to be determined by the challenge writer

Skills Learned

Activity development and planning

Review of previous skills learned

Procedure

1. Create a design challenge for someone else in the class. It can be focused on any topic you want and written for any skill level.
2. Be sure to include a materials list and methods of assessing his or her solution. What does someone need to do this challenge? How will someone know he or she has completed your challenge?



3. Keep in mind that whoever gets your challenge will only have one hour to complete it. He or she should be able to finish it within that time frame but should not get done too early.

Extensions

1. Tie this activity to literature read in your classroom and/or curriculum standards it may address.
2. Create a Building or Programming Tips section for this activity.