Topic: Waterbots

Teacher Information

Time Allowance
45 min.

Materials
4 blindfolds
4 small paper cups
2 gallon jugs of water (sand, beans, or beads to reduce mess)
2 large buckets
1 measuring cup

Preparations
1. Divide group in group in half and line them up into two single-file lines, facing in different directions.
2. Working in pairs from one line, one student will become the Waterbot and the other will be Mission Control.
3. The Waterbot knows only very simple commands such as:

Go Left	**Go Backward**
Go Right	**Go Forward**
Bend	**Stop**
Pour	

4. Blindfold the Waterbot and fill a cup with water.
5. Mission Control should then give instructions that will lead the Waterbot to the bucket to dump the cup of water.
6. Continue these procedures until each student has had at least one chance to be Mission Control and the Waterbot.
7. When both groups are finished, measure the amount of water in each of the buckets to see which group wins.
8. Encourage accuracy in place of speed.
9. Use the extra blindfolds and cups to prepare the second set of students to be ready to begin their run when the previous group finishes.

Waterbots

Student Worksheet

Read the following

Working with a partner, you will demonstrate how robotics work.

Materials

blindfolds
small paper cups
gallon jugs of water (sand, beans, or beads to reduce mess)
large buckets
measuring cup

Preparations

Working with a partner, one student will become the Waterbot and the other will be Mission Control.

1. The Waterbot knows only very simple commands such as:

Go Left	**Go Backward**
Go Right	**Go Forward**
Bend	**Stop**
Pour	

2. Blindfold the Waterbot and fill a cup with water.
3. Mission Control should then give instructions that will lead the Waterbot to the bucket to dump the cup of water.
4. Switch roles, but continue with a new empty bucket.
5. Continue these procedures until each student has had at least one chance to be Mission Control and the Waterbot.
6. When finished, measure the amount of water in each of the buckets to see which person wins.
7. Complete Questions & Reflection.

Questions & Reflection

1. How much water was in your bucket? _____

2. How much water was in your partner's bucket? _____

3. How simple/complicated was this activity? _____
   _____

4. Which is more important speed or accuracy? Why? _____
   _____