Objective: to create an experiment to determine the effectiveness of using moving water to attract birds

Time: 30-45 minutes

All living things need water, and birds are no exception. If you would like to attract birds to your habitat, one way is to offer them water. The sound of moving water is particularly inviting to birds. Your students can test this idea with the following experiment.

Materials: Clean milk jugs and lids (one for every 2-3 students), a small nail, a safety pin, string, garbage can lid or a saucer from a large flowerpot – one for every 2-3 students, worksheet, water and markers

Methods: Obtain enough clean milk jugs and lids for your students to use in groups of 2-3. Discuss the importance of safety with the students, and depending on their ages, you might have to help them punch a hole in the center of the bottom of the milk jug with a small nail. The water should drip very slowly out of this hole. A slightly larger hole will need to be punched in the lid to let air into the milk jug. The next step is to decorate the milk jugs with markers. This will be your moving water.

The students should take the milk jugs out into their habitats and hang them 1-2 feet above the garbage can lid or saucer using a string that is tied around the handle and then looped over a tree branch. They should also fill another container that is comparable in size to the garbage can lid with water and place it close by. This will be your stationary water. Ideally this location would be close to a window where the students can observe and see if birds will come and drink from the water. The milk jug will only drip for a few hours so it will need to be refilled. Try to time it and set up a student rotation for refilling.

Now, observe the number of birds that visit each water source. Record each bird on the Moving Water Tally Sheet. If you are unable to identify the bird, that is okay; it is enough to record that a bird came to the water source and drank water.
Do you think that more birds will be attracted to the moving water or the stationary water? What is your hypothesis? State it here:

____________________________________________________________________________________________________________________________________________________________________________________

Why do you think this is true?

____________________________________________________________________________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________________________________________________________________________

When you did your observations, was there a difference in the number of birds that came to the different containers of water?  

____________________________________________________________________________________________________________________________________________________________________________________

Why do you think this happened?  

____________________________________________________________________________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________________________________________________________________________

Was there a difference in the number of birds that came, depending on the time of day?  

____________________________________________________________________________________________________________________________________________________________________________________

Why do you think this happened?  

____________________________________________________________________________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________________________________________________________________________

**Math Extension:**  
How many milk jugs did you use in one school day?  

________________________________________________________________

How many gallons is that equal to?  

________________________________________________________________

How many quarts is that equal to?  

________________________________________________________________

How many pints is that equal to?  

________________________________________________________________

How many cups is that equal to?  

________________________________________________________________
<table>
<thead>
<tr>
<th>Date</th>
<th>Time of Day</th>
<th>Stationary Water</th>
<th>Moving Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex: Monday Oct 11th, 2010</td>
<td>9:00am</td>
<td>American Robin – I</td>
<td>Northern Cardinal – III</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yellow Bird</td>
<td>Brown bird</td>
</tr>
</tbody>
</table>