

Freshwater Monitoring – Bug Food and Stick Races

Aim: To look at the stream and the surrounding land and determine the things that are important in making a good ‘home’ for stream life.

Equipment	Method	Things to discuss:
<ul style="list-style-type: none"> • collection of sticks from the area (30 cm x 1 cm) • tape measure 	<ol style="list-style-type: none"> 1. Select a safe section of the stream – ideally about 20m or more in length. 2. Collect sticks of a suitable size – 30cm x 1cm. 3. Observe the availability of sticks and leaves near the stream – sources of organic matter. 4. Space yourselves at equal intervals across the stream, forming a starting line. 5. Release the sticks and observe their progress. Watch how they move and what they get caught on. 6. The winner – from a bug’s perspective – would be the stick that gets trapped first! 7. Use observations from this activity to score the level 1 and level 2 factors on the data recording sheet. 	<ol style="list-style-type: none"> 1. Discuss with students the traditional concepts surrounding a race, that the first over the line is the winner and the fastest is the best. 2. In this race it is the slowest stick, the one that gets caught on branches and rocks that will win! 3. This activity is designed to have students look at the habitat of the stream to see whether it is a ‘good’ place for animals to live. Overhanging branches and grasses that ‘weep’ into the water provide food, shelter and shade from the sun. 4. Rocks and logs in the stream create riffles in the water that help to put oxygen into the water. 5. Think about whether this is a ‘good’ place for animals to live. 6. Think about what things could be changed to improve the stream habitat.
	<p>Notes:</p> <p>This investigation could be repeated using leaves instead of sticks and/or with twiggy sticks. At least 10 sticks/leaves/twigs should be raced to allow a reasonable conclusion to be reached.</p> <p>Reflect</p> <ul style="list-style-type: none"> • How did the leaves travel (compared to the sticks)? • Do leaves and sticks falling in the stream stay where they fall or are they washed down stream rapidly? 	<p>Reflect, continued</p> <ul style="list-style-type: none"> • How did twiggy branches compare to unbranched sticks? • If you wanted your stick to float away quickly where would you put it? Where do you need to put your stick to ‘win’ the race? • Is there a good source of organic matter inputs (trees, shrubs) near the stream? • What other things are helping to make this stream a good habitat for animals? • What is the surrounding land use? How do people use this river? • Is there anything that could be done to improve the habitat?

