

## Urban Ecology: Urban Muir Web

Brooklyn College City as a Lab GK-12 Program  
Academy for Urban Planning

Time: 45 min

Hands On? Yes; Internet? NO

Standards Met: *Living Environment: Standard 1; PI 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3 Standard 1; PI 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3; Standard 4; PI 1.1, 6.1, 6.3, 7.1, 7.2*

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| <b>Title:</b> Urban Muir Web  |
| <b>Grade and Subject:</b> 11th (Urban Ecology)  |
| <b>Number of Days for Completion:</b> 1   |
| <b>Overreaching Goals/ Outcomes:</b> Students will learn the concept of a Muir web and how it is different from a food web. Students will learn that all forms of urban life are interconnected.  |
| <b>Learning Goals/Outcomes:</b> SWBAT- draw connections between themselves as humans and the abiotic and biotic factors in their urban environment.   |
| <b>Materials:</b> ball of string, set of Muir web organisms, ribbon, tape or staples.   |
| <b>Introduction:</b> This hands on activity enables students to physically draw connections between the elements they represent.  |
| <b>Instruction/Direct Experience:</b> Students begin by standing in a circle. They are all given a Muir web element card (abiotic, biotic, habitat). On the reverse of each element students should read the summary of their element, which includes habitat, food and consumption. Students are asked to asses which abiotic element is the most important of all elements in the web. Most students realize that without the sun there would be no life on Earth. Starting with the student that has the sun, the teacher then asks which organisms are directly influenced through photosynthesis. Starting with primary producers the web continues to be drawn including habitats and organisms that consume them. Once students have drawn all connections a large interconnected web should result. |
| <b>Independent Activities:</b> NA   |
| <b>Assessment:</b> Ask questions about how the elements in the Muir web are connected. Pulling on a piece of the rope can assess this and asking how many students can feel the tug. Ask students what their species needs to survive. Talk about what a habitat is and what their needs are in New York City.  |
| <b>Connections:</b> Students will draw connections between human involvement in the muir web and how they are related to lower organisms such as cockroaches.   |