

## **INTRODUCTION TO THE MY CITY'S AN ECOSYSTEM CURRICULUM**

This ecology curriculum has been developed by the Baltimore Ecosystem Study (BES), a long term ecological study of Baltimore, our urban ecosystem. BES is made up of many people and organizations; scientists from Baltimore and all over the country, K-12 teachers, college professors, and non-profit community based organizations.

We have tried to create an exciting series of modules that will allow you and your students to learn and understand many new things about your urban ecosystem. You'll be learning about the world around you, and appreciating the wonder, beauty, richness, and complexity of our surroundings. You'll also be visiting other sites and meeting scientists who study our city!

One of the most important parts of this endeavor is you, the teachers. The children you work with will take their cues from you. Your interest, enthusiasm, and willingness to roll up your sleeves (and maybe your pants legs, too) will make all the difference! The material is here but you are the ones who will bring it to life!

There are a few constants that are threaded throughout the modules. We have tried to create a curriculum that allows children to learn and express what they have learned through different modalities. You will see children asked to express their ideas verbally, in writing, song, rap, poetry, and drawings. Children will have an opportunity to work individually, in pairs, small groups and together as a class. Investigation and exploration are central to the curriculum. We want children to give free reign to their curiosity about the natural and human-made world around them and how these two components interact. An important step is providing children with the tools they need to investigate questions they are eager to answer.

We hope that you will enjoy learning right along with the children!

### **Structure of the Modules**

Each module will be organized in a uniform manner; it will contain a series of **Lessons**. **Handouts/Worksheets/Readings** will be identified by the lesson to which they are attached, as well as specific **Journal** prompts. **Leader Tools** will also be identified by lesson.

Each lesson will have the same sections, appearing in the same order. If a section heading is missing for a lesson this means there is no relevant material for that section. For example, if there is no new vocabulary in a lesson, the heading New Vocabulary will not be included.

### **Background Information for Teachers**

In most modules, we have provided information that will educate you in the content as you prepare for each lesson and activity. We encourage you to read this information ahead of time, following up any questions you may still have by doing research independently. In addition, useful websites are listed to help guide you even further.

### **How to Use the Vocabulary List**

We have tried to provide definitions of terms that are used in the lessons which are likely to be new to the children. There is a Module Vocabulary list as well as new vocabulary in the lesson in which the term/concept is introduced. Please **DO NOT** introduce the vocabulary words at the beginning of the module. Try to discuss each term as it comes up in a lesson, in the context of that lesson's content. As part of the lesson you can then choose to make Vocabulary Strips for a Word Wall. You can also play Ecology Jeopardy throughout or at the conclusion of a series of lessons or a module. This has been a popular activity in past years, and recent changes made to the curriculum should allow you ample time to engage in these activities with your students.

### **Content Alignment**

Each module has been formatted to align with the Maryland State Curriculum (MD SC) developed by the Maryland State Department of Education. Following each lesson you will see a table that states the specific objectives from the MD SC that applies to the activity. The My City's an Ecosystem curriculum engages many content areas in addition to Science. For any questions you may have regarding the content alignment, please visit the "School Improvement in Maryland" website at [www.mdk12.org](http://www.mdk12.org).

### **Volunteers**

Volunteers will help you achieve success in doing many of the rich ecology investigations included in this handbook. Many of the projects will unfold more smoothly with extra hands, both in the classroom and in the schoolyard. Effective volunteers can be experts in ecology. They can also be interested parents, grandparents, aunts and uncles, college students, and responsible high school students. As you read through the lessons make a note of the specific lessons for which you would like to have volunteers. If you need help recruiting volunteers check with the Parks & People youth program staff for ideas, and coordinate these plans with your school principal.

### **Ongoing Assessments**

Formal and informal assessments are embedded throughout each module. Students will be asked to complete formal assessments at the beginning and end of the program year, as well as at the beginning and end of Module 9 (Water). Additionally, Module 1 (Ecology)

includes a pre-assessment for Grades 4 and 5. You may use this evaluation to gauge your students' knowledge from the previous My City's an Ecosystem curriculum, and either review lessons from the Grades 2 and 3 curriculum or move on to the activities presented for Grades 4 and 5. In many modules, Journal activities have been created as informal assessments for you to use in order to activate your students' prior knowledge related to the content, as well as monitor student understanding throughout each lesson.

In this curriculum, the purposes of assessments are NOT to ensure that students know the "right" answer to questions posed. Most questions being asked do not have one correct answer. Rather, the assessments are to evaluate the students' abilities to understand the mechanisms behind why things occur the way they do in an ecosystem. Therefore, use the assessments as opportunities to evaluate your students' thinking process before testing their content knowledge. We are confident that the content knowledge will develop over time as your students progress through the modules during the school year.

### **Habits of Mind That Make a Good Scientist**

One curriculum goal is to guide the children in development of the habits of mind that make a good scientist. What are these "habits of mind"? They include curiosity, open-mindedness, reflection, and patience. Always thinking about the "WHY" behind something, whether it is an idea, opinion, prediction, or hypothesis is a habit of mind that this curriculum nurtures. To make this happen, you must always push your students a bit to think about the WHY and to be willing to work on figuring it out. Once developed, this habit of mind will serve your children well as they progress through school and through their lives.