

Ecosystems: Suggestions for Collecting Work Samples

We are fortunate that our science curriculum is very inquiry oriented. At each grade level there are many opportunities built-in for students to do inquiry. Often all that is necessary is remove some of the teacher direction and structure, while supplying students with available materials. We have identified opportunities for inquiry work samples in Ecosystems. Although these activities provide an opportunity for students to **demonstrate all four components** of inquiry, they can also be used to give students practice on individual components.

Lesson	Lesson Title	Description
2,(5)	<ul style="list-style-type: none"> • Setting up the terrarium 	<p>Students could practice inquiry skills by predicting/ observing/ comparing change over time on the germination of the 3 seed types planted in the terrarium. (Note: in this case <i>the variable we will change</i> is not applicable-- it is time)</p> <ul style="list-style-type: none"> • A student reading on germination is included in Lesson 5 (<i>Growing Plants: How Seeds Spring to Life</i>, page 82 in the teacher's guide.) • Be sure to count the seeds planted (use toothpicks to mark the quadrants separating seed types.) How will they determine how many seeds <i>germinated</i>? Students should work through the Scientific Inquiry Report Form. • What inferences will they be able to make about the seeds? (viability, different conditions needed...) What changes might they make to the experiment if they chose to repeat it?
8,9,10,11,12,13,14	<ul style="list-style-type: none"> • Upsetting the stability • Reporting on pollutants • Planning pollution experiments • Setting up our pollution experiments • Observing early effects of pollution • Where do pollutants go? • Drawing conclusions about our experiment 	<p>In this series of activities students are guided through designing a classic controlled experiment on the effects of certain pollutants. To use for a work sample do the following:</p> <ul style="list-style-type: none"> • Do Activity 8 and 9 as written. This will provide students with the background information needed to ask a question and design an investigation on one of the pollutants. • Activities 10, 11, 12, 13 & 14 can be done as written or alternatively students could move to the "Scientific Inquiry Report Form."