

## ACTIVITY 4: Green Roof Project

**Activity Objective:** Design and build a model Greenroof.

**Materials:** Chapter 15, paper, computer, printer, Internet Access, Materials as needed to build a Greenroof

**Definition:** The protection of our planet's various *ecosystems* is a fragile process, but one that is vital to further sustainable life on Earth. Factors such as soil or water temperature, precipitation amounts, altitude and geological/chemical integrity will have variable effects of biota. In short, living organisms are significantly impacted by all factors within an ecosystem and each one being vital, and at times delicate. It all requires careful scrutiny and is part of conservation biology.

Conservation biology is an actual scientific practice that focuses on protecting species and ecosystems from rapid decline and extinction. A good example of conservation efforts that are working through hard work of researchers and biologists is the protection of elephants and rhinos. These animals have been killed (poached) for their ivory as well as by local farmers due to the elephant's destruction of their crops. Through efforts by conservationists, the elephant population decline has peaked and is now back on the increase.

The continuation of life, in some capacity has been a common theme. Species diversity is another vital part of sustainable biodiversity. All life on this planet exists because of species diversity. The diversity extends beyond life forms, but also to entire habitats and ecosystems. One way to provide a safer habitat for species like butterflies, insects, and birds is to build a Greenroof project. Many newer parking facilities are built underground with green parks above them in place of traditional concrete and or asphalt surfaces.

### REVIEW VIDEOS:

How to Build a Green Roof in One Day: <https://www.youtube.com/watch?v=d4Q1aWR0uS4>

How To Build A Green Roof: [https://www.youtube.com/watch?v=aoM\\_bEVia2o](https://www.youtube.com/watch?v=aoM_bEVia2o)

How to Build an Edible Green Roof by Senga:  
<https://www.youtube.com/watch?v=lhjopZckHOo>

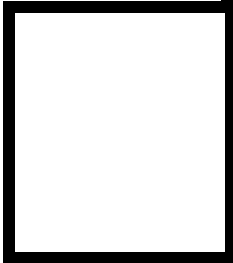
### Procedure:

1. Work as partners or small teams.
2. Research and brainstorm the building of a Greenroof in any size.
3. Create a plan to build a Greenroof and actually build one.



RUBRIC

<b>4 World-Class Learner</b>	<b>3 Proficient Learner</b>	<b>2 Developing Learner</b>	<b>1 Emergent Learner</b>
Learner at this level has gone beyond mastery of knowledge, skills, & attitudes described in project. World-class learner consistently exhibits high-quality performance.	Learner at this level has had opportunities to apply knowledge, skills, & attitudes of component of project. Proficient learner has mastered essential attributes, thus proving mastery.	Learner at this level has been exposed to & had opportunity to apply knowledge, skills, & attitudes of project. Developing learner may have only a few essential attributes to master before mastery.	Learner at this level may or may not have been exposed to knowledge, skills, & attitudes required by academic standards of the project.



- 1 = Emergent Learner**
- 2 = Developing Learner**
- 3 = Proficient Learner**
- 4 = World-Class Learner**