

# Checkpoints and Standard Checks

## Essential Questions:

*What eco-services are provided on my school site?*

*Where are these eco-services provided on my site?*

## Background:

Explain to learners that in the Eco-services Hunt they located places where eco-services are provided on their site. During Club sessions learners will be collecting data and doing science experiments about the health of their local ecosystem.

The tests are called “standards checks”. These standards checks will be done at places on your club site called ‘Checkpoints’. GEN Club leaders should choose sites that represent different areas of the ecosystem and hence, have different organisms and vary in how well each eco-service is proved. Each of the seven standards checks departmentst will have checks conducted in three different locations; hence, there will be a total of three Checkpoints on your club site.

If you are in Year 1 of your Club, you can select the checkpoints as you prepare to implement your club or you can involve your learners in selecting the checkpoints.

Garden Earth Naturalists will conduct the same standards checks each year at the Checkpoints and compare the new data to the baseline data. This will be a way to know if your club site is providing the same eco-services each year. We anticipate that as your club members conduct environmental stewardship and or service learning projects on your site that the health of your site ecosystem will improve and the variety of organisms will increase.

## Part A: Choosing & Marking Checkpoints! *(Year 1 Clubs Only)*

### Procedure:

1. This only needs to be completed once, in subsequent years you will use the same checkpoints. Use the following chart as you choose your Checkpoints. When the three sites are chosen, they will be marked with official trail markers.
2. Choose a name for each checkpoint that distinguishes it from the others and helps you to remember which standards checks are done there. For example, Checkpoint “Woods” is a great place for standards checks in the soil, air and pest and disease control departments because of the shade, leaves on the ground and invasive plants. Standards Checks for each of the seven departments should be done at two locations.
3. Next, add the three official locations for your GEN Club Checkpoints to your club site map (*see How to Get a Club Site Map*). This may require instruments like a tape measure or compass.
4. Data will be recorded at each checkpoint each year (preferably in two different seasons each year).
5. Data sheets will be kept in the GEN Club Log Book.

**Location:** outside

**Objectives:** *Learners will*

- 1) select Standard’s checks’ Checkpoints and collect related data.

**Skills:** compares physical attributes, uses tools, asks questions that lead to investigations, mapping

### Supplies:

- Worksheets
- Soil thermometer
- Air thermometer
- Soil Color Chart
- Stick to dig in soil
- Digital camera
- Cord to transfer image to computer

**Subject:** science

**Time:**

30 minutes

SAMPLE COMPLETED CHART



## Garden Earth Naturalist Club Choosing Checkpoints

This only needs to be completed once, in subsequent years you will use the same checkpoints.

	Checkpoint 1	Checkpoint 2	Checkpoint 3
<b>Name for Checkpoint</b> <i>i.e. 'Woods'</i>	<b>WOODS</b>	<b>POLLINATOR GARDEN</b>	<b>FIELD</b>
<b>Location</b> <i>i.e. 5 paces NE of Oak tree</i>	<b>6 PACES SW OF AMERICAN INDIAN PLANTS SIGN</b>	<b>27 PACES W-SW FROM EDGE OF LAWN AT BOTTOM OF STEPS OUTSIDE CAFE</b>	<b>BEHIND BUIDLING S-SE 13 PACES SE OF DUMPSTER</b>
<b>Departments for Standards Checkpoint</b>  <i>Standards Checks are conducted for all Departments at each of the 3checkpoints. But you should choose checkpoints that lend themselves to providing adequate data for the different departments.</i>	<b>1. FOOD</b>  <b>2. AIR</b>  <b>3. PEST &amp; DISEASE</b>  <b>4. SOIL</b>  <b>5. BODIVERSITY</b>	<b>1. POLLINATION</b>  <b>2. FOOD</b>  <b>3. PEST &amp; DISEASE</b>  <b>4. BIODIVERSITY</b>  <b>5. SOIL</b>  <b>6. AIR</b>	<b>1. SOIL</b>  <b>2. AIR</b>  <b>3. BIODIVERSITY</b>  <b>4. POLLINATION</b>  <b>5 PEST &amp; DISEASE</b>
<b>Reasons for choosing this site</b>  <i>i.e. Lots of trees</i>	<b>LOTS OF TREES/LEAF LITTER ON SOIL</b>	<b>LOTS OF POLLINATORS/ PREPARED SOIL</b>	<b>COMPACTED SOIL</b>

# Garden Earth Naturalist Club Choosing Checkpoints



This only needs to be completed once, in subsequent years you will use the same checkpoints.

	Checkpoint 1	Checkpoint 2	Checkpoint 3
<b>Name for Checkpoint</b> <i>i.e. 'Woods'</i>			
<b>Location</b> <i>i.e. 5 paces NE of Oak tree</i>			
<b>Departments for Standards Checkpoint</b> <i>Standards Checks are conducted for all Departments at each of the 3 checkpoints. But you should choose checkpoints that lend themselves to providing adequate data for the different departments.</i>	<b>1.</b>  <b>2.</b>  <b>3.</b>  <b>4.</b>	<b>1.</b>  <b>2.</b>  <b>3.</b>  <b>4.</b>	<b>1.</b>  <b>2.</b>  <b>3.</b>  <b>4.</b>
<b>Reasons for choosing this site</b> <i>i.e. Lots of trees</i>			

## Part B: Documenting Checkpoints!

**Background:** While conducting this Module, What is an Ecosystem?, club members collect preliminary data about each Checkpoint, photograph the Checkpoints and place this information in their GEN Logs.

### Procedure:

1. Divide Club members into three teams and have learners collect data at the three Checkpoint sites. The data can then be compiled on the comprehensive chart and placed in the Log.

**While standing approximately two feet from the Checkpoint post, learners will collect the following data.**

## CHECKPOINT VARIABLES

1. **Air Temperature:** Using the thermometer in the GEN Kit, measure air temperature. One child should hold the thermometer at waist height. After approximately 2 minutes, a child records the data on the worksheet.
2. **Soil Temperature:** One child places the thermometer into the soil. After 2 minutes, another child records the data on the worksheet.
3. **Sun or Shade:** The team data recorder writes whether the checkpoint is located in the sun or in the shade.
4. **Color of Soil:** Learners refer to color scale in their GEN Kits and record the color of the soil.

	CHECKPOINT # __
<b>Name of Checkpoint</b> <i>i.e. 'Woods'</i>	
<b>1. Air Temperature</b> <i>1 meter above ground</i>	
<b>2. Soil Temperature</b>	
<b>3. Sun or Shade</b>	
<b>1. Color of Soil</b>	

# DOCUMENTING CHECKPOINTS!

*Collecting Data about each  
Checkpoint Site*



Name of Site: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

**Complete the following chart:**

	CHECKPOINT #__
Location of Checkpoint <i>i.e. 'Woods'</i>	
1. Air Temperature <i>i.e. 1 meter above ground</i>	
2. Soil Temperature	
3. Sun or Shade	
4. Color of Soil	

Tape a photo of your checkpoint site in this box.

**Place this chart and checkpoint photo in your GEN Club Log Book.**

# DOCUMENTING CHECKPOINTS!

Compile data about all three 'CheckPoints' on the chart below.



	Checkpoint 1	Checkpoint 2	Checkpoint 3
<b>Name of Checkpoint</b> <i>i.e. 'Woods'</i>			
<b>1. Air Temperature</b> <i>1 meter above ground</i>			
<b>2. Soil Temperature</b>			
<b>3. Sun or Shade</b>			
<b>4. Color of Soil</b>			