

# Environmental Inventory of DIT CODY

May 16, 2016

8:45 AM-12:45 PM

11:15-25 Break

12:50- Students are dismissed to lunch

## Goals for the day:

- Rotate 5 groups of students through 5 “inventory” stations
- Learn introductory procedures and skills in water, soil testing
- Students can make observations and measurements of several water samples. This activity helps students think about different ways to determine water quality and practice scientific processes
- Students will be comfortable describing the roles and functions of trees in an urban environment ; talking about pervious vs impervious surfaces ; distinguishing the differences between native and non-native species
- Students will learn about engineering training and leave with exposure to a possible future career path

## Time Keeper and Rotation Captain: Mr. Sabo!

Minutes	Start	Finish	Location/Activity
0:20	8:45	9:05	Auditorium
0:10	9:05	9:15	Transition
0:35	9:15	9:50	Round 1
0:05	9:50	9:55	Transition
0:35	9:55	10:30	Round 2
0:05	10:30	10:35	Transition
0:35	10:35	11:10	Round 3
0:05	11:10	11:15	Transition
0:10	11:15	11:25	Break
0:05	11:25	11:30	Transition
0:35	11:30	12:05	Round 4
0:05	12:05	12:10	Transition
0:35	12:10	12:45	Round 5
		12:50	Dismiss to lunch

## Intro:

Everyone gathers and the activity leaders are introduced and can share about each activity.

Guidelines set for outdoor learning, and awareness about earning the trip to the Rouge Park based on effort and focus today. We can assign student groups and rotation starting point for each, before we go outdoors

### For students: (SEGRIST)

- Today is to collect an environmental inventory of our school grounds and surrounding area. On June 3<sup>rd</sup>, we will go to the Rouge Park to repeat some of these same inventories in “the field”.
- Today is a way to show us that you each would like to participate in the park visit and celebration—please make good choice and be respectful to all of our field teachers today!

### Directions:

- Students will be divided in 5 groups , of hopefully less than 11 per group, and travel to each of the 5 stations with that group.
- Each student group will be accompanied by 2 Midshipman, who will travel with them through the rotations.
- Stations are 35 minutes each with a 5 minute transition between.
- We will end the day at 12:45 and close and dismiss at 12:50 for students to attend lunch.

### Station Descriptions

**Ecosystems Services (Nate)** Trees and water quality, air quality, carbon, and energy conservation, urban forestry

**Engineers-in-training Q & A with Midshipmen (Scott & midshipmen)**

Q&A with the two midshipmen in the group to give the students an opportunity to ask about the Mid’s paths in school, projects, extracurricular, and career goals – connecting the idea of sitting in a classroom to practical experience and job. The car will be in display during each panel.

**Water qualities site testing (Lisa)** we will test the water qualities from various sites on and near DIT for water temp, turbidity, dissolved Oxygen, Phosphate, pH

**Determining water quality (Mr. Tracey & Laura)** his stations includes a water quality activity.

**Soil testing (Mr. Segrist)** We will gather and prepare soil samples from various sites on and near DIT and zoom in on what could living in that soil—there will be a microscope table for water and soil testing.

### Locations:

1. Detroit Institute of Technology (Dover & Greenview school building & grounds) and Outdoor classroom
2. Faust & Dover lot across from DIT
3. Stein Playground Bio-swale
4. CODY DIT Auditorium

**Stations**

**Student Groups**

<p><b>Round 1</b></p> <ul style="list-style-type: none"> <li>A. Ecosystems Services (Nate) <b>Around the grounds/bioswale</b></li> <li>B. Engineers-in-training Q &amp; A with Midshipman (Scott &amp; Midshipmen) <b>Outdoor classroom</b></li> <li>C. Water qualities testing (Lisa &amp; Laura) <b>site #1</b></li> <li>D. Soil testing (Mr. Segrist) <b>sites #1</b></li> <li>E. Determining water quality (Mr. Tracey &amp; Laura) <b>Table on the lawn</b></li> </ul>	<p><b>Round 1</b></p> <ul style="list-style-type: none"> <li>A. <b>Group 1</b></li> <li>B. <b>Group 2</b></li> <li>C. <b>Group 3</b></li> <li>D. <b>Group 4</b></li> <li>E. <b>Group 5</b></li> </ul>
<p><b>Round 2</b></p> <ul style="list-style-type: none"> <li>A. Ecosystems Services (Nate) <b>Around the grounds/bioswale</b></li> <li>B. Engineers-in- training Q &amp; A (Scott &amp; Midshipmen) <b>Outdoor classroom</b></li> <li>C. Water qualities testing (Lisa &amp; Laura) <b>site #2</b></li> <li>D. Soil testing (Mr. Segrist) <b>site #2</b></li> <li>E. Determining water quality (Mr. Tracey &amp; Laura) <b>Table on the lawn</b></li> </ul>	<p><b>Round 2</b></p> <ul style="list-style-type: none"> <li>A. <b>Group 2</b></li> <li>B. <b>Group 3</b></li> <li>C. <b>Group 4</b></li> <li>D. <b>Group 5</b></li> <li>E. <b>Group 1</b></li> </ul>
<p><b>Round 3</b></p> <ul style="list-style-type: none"> <li>A. Ecosystems Services (Nate) <b>Around the grounds/bioswale</b></li> <li>B. Engineers-in- training Q &amp; A (Scott &amp; Midshipmen) <b>Outdoor classroom</b></li> <li>C. Water qualities testing (Lisa &amp; Laura) <b>site #3</b></li> <li>D. Soil testing (Mr .Segrist) <b>sites #3</b></li> <li>E. Determining water quality (Mr. Tracey &amp; Laura) <b>Table on the lawn</b></li> </ul>	<p><b>Round 3</b></p> <ul style="list-style-type: none"> <li>A. <b>Group 3</b></li> <li>B. <b>Group 4</b></li> <li>C. <b>Group 5</b></li> <li>D. <b>Group 1</b></li> <li>E. <b>Group 2</b></li> </ul>
<p><b>Round 4</b></p> <ul style="list-style-type: none"> <li>A. Ecosystems Services (Nate) <b>Grounds</b></li> <li>B. Engineers-in-training Q &amp; A with Midshipman (Scott &amp; Midshipmen) <b>Outdoor classroom</b></li> <li>C. Water qualities testing (Lisa &amp; Laura) <b>site #4</b></li> <li>D. Soil testing (Chad) <b>site #6</b></li> <li>E. Determining water quality (Mr. Tracey &amp; Laura) <b>Table on the lawn</b></li> </ul>	<p><b>Round 4</b></p> <ul style="list-style-type: none"> <li>A. <b>Group 4</b></li> <li>B. <b>Group 5</b></li> <li>C. <b>Group 1</b></li> <li>D. <b>Group 2</b></li> <li>E. <b>Group 3</b></li> </ul>
<p><b>Round 5</b></p> <ul style="list-style-type: none"> <li>A. Ecosystems Services (Nate) <b>Around the grounds/bioswale</b></li> <li>B. Engineers-in- training Q &amp; A (Scott &amp; Midshipmen) <b>Outdoor classroom</b></li> <li>C. Water qualities testing (Lisa &amp; Laura) <b>site #5</b></li> <li>D. Soil testing (Chad) <b>sites #4 &amp; 5</b></li> <li>E. Determining water quality (Mr. Tracey &amp; Laura) <b>Table on the lawn</b></li> </ul>	<p><b>Round 5</b></p> <ul style="list-style-type: none"> <li>A. <b>Group 5</b></li> <li>B. <b>Group 1</b></li> <li>C. <b>Group 2</b></li> <li>D. <b>Group 3</b></li> <li>E. <b>Group 4</b></li> </ul>