Mecklenburg Soil and Water Conservation District

“The Living Soil”

2018-2019 CONTEST HANDBOOK K-12
Contest Overview

Mecklenburg Soil and Water Conservation District is dedicated to getting the conservation message to the public through education.

A really cool and fun way that we convey this message in our community is by participating in contests sponsored by the North Carolina Association of Soil and Water Conservation Districts.

Tell me and I will forget. Show me and I will remember. Involve me and I learn.
- Benjamin Franklin

District supervisors and staff would like to thank you for your participation!
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The Living Soil is beautifully illustrated by Jewel Ham. Jewel, at the time, was a student at Piedmont IB Middle School in Charlotte, North Carolina. Jewel’s artwork earned her 1st Place in the 6th grade competition at Local, Area and State levels in the 2010 Soil and Water Conservation Districts Poster Contest.

The use of all material (bookmarks, essays and posters) submitted by the contest participants in past, present and future contests is solely for the purpose of promoting Mecklenburg Soil and Water Conservation District’s Educational Contests and Programs.
Bookmark Illustration Contest

Designed for Grades K-3

Theme: “The Living Soil”

Entry Deadline: Tuesday, January 15, 2019

Awards: 1st Place, 2nd Place and 3rd Place
Winners in each grade level will receive a trophy and a certificate. Awards will be presented at the annual banquet in the spring (TBD).

Contest Specifications

• Bookmark should be the original work of the individual student.
• Bookmark should clearly convey the contest theme.
• Bookmark should be clear reproducible.
• Do not submit computer drawings.
• Please use the attached bookmark template on page 7.
Bookmark Illustration Contest

Judging Criteria

• **50 POINTS - Conservation Message:**
  Message shows clear understanding of why this natural resource is important and explains how people can and should conserve this natural resource.

• **25 POINTS - Visual Effectiveness:**
  Readability (use of white space, type choice, neatness; originality; effect on audience (Which bookmark will you remember next year?).

• **10 POINTS - Universal Appeal:**
  Easily understood by the general population.

• **10 POINTS - Originality:**
  Expresses the contest theme in a fresh, inventive, or novel way of using independent thought and creative imagination, and using the unexpected to full advantage.

• **5 POINTS - Hand-Drawn Elements:**
  Shows good skill with original hand drawn elements.

**Perfect Score: 100 POINTS**    **Infractions: Violates Copyright: 5 Points**
Bookmark Illustration Contest
Template and Entry Form

Draw your bookmark design inside the box on the left. Make it fun and colorful!

2018-2019 Theme: “The Living Soil”

Neatly fill in contact information below.

Student’s Name: ________________________________

Grade: _____________________________________

School: _____________________________________

Teacher’s Name: ______________________________

Teacher’s Email: ______________________________

Return your bookmark design to: Anganette Byrd
Mecklenburg Soil & Water Conservation District, 2145 Suttle Avenue, Charlotte, NC 28208
Poster Contest
Designed for Grades 3-6

Theme: “The Living Soil”

Entry Deadline: Tuesday, January 15, 2019

Awards: 1st Place, 2nd Place and 3rd Place
Winners in each grade level will receive a trophy and a cash award. Awards will be presented at the annual banquet in the spring (TBD).

Contest Specifications

• Poster should be the original work of the individual student.
• Poster should clearly convey the contest theme.
• Poster should be no larger than 24 x 36 inches.
• Poster should be submitted flat and not rolled.
• Poster must be properly identified on the back of entry using ID Form.
Poster Contest Pointers

What makes a good poster?
- A brief, catchy message; one theme that can be read in 10 seconds or less
- A slogan telling viewers to do something and making them want to do it
- Use of **COLOR** and **WHITE** space to get and hold attention
- Letters large enough to be easily read and words separated enough to make them quickly grasped

Avoid these poster faults:
- More than one theme; message becomes lost
- Too busy - too many and/or scattered pictures or words
- Material not relevant to the topic

Other tips to remember:
- Margins should be larger at the bottom and equal on the other three sides
- Illustrations add emphasis and attract attention
- Small lettering is hard to read at a distance. Consider the following lettering heights for readability from 10 feet:
  - Easiest to read 1 inch
  - Easy to read 3/4 inch
  - Fairly easy to read 1/2 inch
- **Boldness** makes a difference
- Plain lettering is more readable than fancy lettering
- **Remember spacing**
Poster Contest

Judging Criteria

• **50 POINTS - Conservation Message:**
  Message shows clear understanding of why this natural resource is important and explains how people can and should conserve this natural resource.

• **25 POINTS - Visual Effectiveness:**
  Readability (use of white space, type choice, neatness; originality; effect on audience (Which poster will you remember next year?).

• **10 POINTS - Universal Appeal:**
  Easily understood by the general population.

• **10 POINTS - Originality:**
  Expresses the contest theme in a fresh, inventive, or novel way of using independent thought and creative imagination, and using the unexpected to full advantage.

• **5 POINTS - Hand-Drawn Elements:**
  Shows good skill with original hand drawn elements.

**Perfect Score: 100 POINTS**  
**Infractions:** Violates Copyright: 5 Points / Exceeds Size Limit: 5 Points
Essay Contest

Theme: “The Living Soil”

Entry Deadline: Tuesday, January 15, 2019

Awards: 1st Place, 2nd Place and 3rd Place
Winners will receive a trophy and a cash award. Awards will be presented at the annual banquet in the spring (TBD).

Contest Specifications
• Essay should be the original work of the individual student.
• Essay should be limited to 300-500 words. Please use Word Count.
• Essay should be submitted typed on standard 8 ½ x 11 copy paper.
• Essay should be properly identified on the back of entry using ID Form.
Essay Contest Pointers

For clarification, the difference between an essay and a report, as applied to this contest is as follows:

**Essay** – A short composition dealing with a single subject from a personal point of view; facts may be interwoven into the essay, which stimulates thinking.

**Report** – A formal presentation of facts in a report style.
Essay Contest

Judging Criteria

• **50 POINTS - Conservation Message and Originality:**
  Message shows clear understanding of why this natural resource is important and explains how people can and should conserve this natural resource. Entry expresses the contest theme in a fresh, inventive, or novel way of using independent thought and creative imagination, and using the unexpected to full advantage.

• **20 POINTS - Writing Style:**
  Innovative style (keeps your interest); correct use of grammar, spelling, punctuation; readability (clear message, easily understood by reader).

• **20 POINTS - Organization:**
  Proper paragraph transitions; opening-closing tie-in; sticks to theme.

• **10 POINTS - Neatness**

Perfect Score: 100 POINTS

Infractions: Incorrect Length: 5 Points / Current Title Not Used: 5 Points / Incorrect Paper Size: 5 Points
Public Speaking Contest

Theme: “The Living Soil”

Awards: 1st Place, 2nd Place and 3rd Place
Winners in each grade level will receive a trophy and a cash award. Awards will be presented at the annual banquet in the spring (TBD).

Contest Specifications

• The speech is limited from 4 to 6 minutes. Visual aids may not be used.
• Use of note cards is acceptable for back up.
• Contestants must identify themselves by their assigned number only or not at all. Personal information such as name, school and hometown can’t be given.
• Please submit a copy of your speech with ID Form by December 7th to: Anganette.Byrd@MecklenburgCountyNC.gov

Competition: Saturday, December 15, 2018 at 10:00 a.m. ~ 700 North Tryon Street, Charlotte, NC 28202 (Piedmont 1 & 2)
Public Speaking Contest Pointers

**DO:**

😊 Become familiar with the judging criteria on the “Public Speaking Contest” Judging Criteria (pages 16 and 17).

😊 Memorize your speech. Use of note cards is acceptable for back up.

😊 Dress appropriately (no costumes, logos or anything that would identify your school, hometown or county).

😊 Arrive early so you can relax and become comfortable with the microphone and podium.

😊 Make eye contact with the audience during your speech.

😊 Be sure to stay in range of the podium microphone while making your speech.

😊 Speeches may be videotaped at the state contest; and area and district contests may also be recorded for use in Soil and Water Conservation District educational programs. Your parent will be asked to sign a form giving permission for videotaping and/or photographing during the event.

**DON’T:**

😊 Go under or exceed the time limit of 4 to 6 minutes.

😊 Use visual aids.

😊 Give any personal information.
Public Speaking Contest

Judging Criteria

Content Criteria:

• **20 POINTS - Conservation Message**
  Message shows clear understanding of why this natural resource is important and explains how people can and should conserve this natural resource.

• **15 POINTS - Organization**
  Presented in meaningful order, shows continuity of ideas, uses orderly flow of thoughts, uses good transitions between thoughts.

• **5 POINTS - Originality**
  Expresses the contest theme in a fresh, inventive, or novel way of using independent thought and creative imagination, and using the unexpected to full advantage.

• **10 POINTS - Skillful Use of Facts, Examples, Descriptions and Analogies**
  Good choice of material, makes sense, factual, accurate, quotes are correct and appropriate. Elements of the speech flow together well and contribute to the quality of the presentation. Facts, examples, descriptions and analogies add to the quality of the presented message.
Public Speaking Contest

Judging Criteria

Speaking Skills Criteria:

• **15 POINTS - Voice and Diction:**
  Quality and variety (not monotone), inflection, enunciation, pronunciation, proper emphasis, projection and control, appropriate volume.

• **20 POINTS - Style:**
  Rapport with the audience, word selection, no distracting mannerisms, appealing presentation.

• **15 POINTS - Body Language:**
  Eye contact, posture and pose, hand gestures used with restraint and good taste.

**Perfect Score: 100 POINTS**

*Student’s Official Time (must be within 4-6 minutes)*

(Page 2 of 2)
Contest ID Form
Essay, Poster and Public Speaking

2018-2019 ________________________________ Contest

Properly identify each entry. Please fill out form and place it on back of entry.

Student’s Name: __________________________

Grade: _________________________________

School: _________________________________

Teacher’s Name: _________________________

Teacher’s Email: _________________________

District: Mecklenburg, County: Mecklenburg
ENVIROTHON
A hands-on environmental science competition for middle and high school students

Envirothon is a middle school and high school Environmental Science curriculum competition. Teams are comprised of five members. The team members study; Soils/Land Use, Aquatic Ecology, Forestry, Wildlife and Current Environmental Issues during the school year.

In the spring there are eight regional competitions in North Carolina. Our region will host the Southern Piedmont Envirothon competition April 2-3, 2019 at the Horizons Unlimited in Salisbury, NC. A written test is administered to select the top seven middle school and top seven high school teams (and top FFA team) to advance to the 2019 NC Envirothon competition May 3-4, 2019 at Cedarock Park in Alamance County.

The middle and high school curriculums are accessible on the NC Envirothon website at: https://sites.google.com/site/envirothonnc/home

One winning high school team from the 2019 NC Envirothon competition will advance to the 2019 NCF-Envirothon July 28-August 2, 2019 at NC State University in Raleigh, North Carolina. For more details, please visit: https://www.envirothon.org/the-competition/current-competition

Are you interested in participating in Envirothon? Please register at: https://docs.google.com/forms/d/e/1FAIpQLSd4aPVV7jf-p92mVVAoay6NzYvo1gG4uXEnSE_yVEIJGS1WuQ/viewform
The Resource Conservation Workshop (RCW) is a five-day training camp that brings together a diverse group of students from across North Carolina. Students are housed in NCSU campus dormitories under the guidance of live-in counselors. It involves study and hands-on participation in a wide range of conservation topics: forest management, soil characteristics and soil conservation, non-agricultural uses for soils, water quality and watershed management, and wildlife and fisheries management. In order to achieve success, students should come prepared to meet the primary objective of the workshop – learning about natural resources and their management in today’s global environment.

Who is eligible?

- Students that attend a school in North Carolina (Mecklenburg County)
- High School Students – rising sophomores, rising juniors and rising seniors

How to apply:

- Start by visiting: [http://ncagr.gov/SWC/educational/RCW.html](http://ncagr.gov/SWC/educational/RCW.html)
- Fill out an electronic application form.
- Submit your Application and Letter of Recommendation from a teacher, principal or counselor. A Letter of Recommendation is favorable; however, it is not a requirement.

**Registration Deadline (Mecklenburg County):** Monday, April 15, 2019
Awards

Poster, Essay, and Speech Contest Winners

1\textsuperscript{st} Place
Receives a trophy and a $30.00 cash award

2\textsuperscript{nd} Place
Receives a trophy and a $20.00 cash award

3\textsuperscript{rd} Place
Receives a trophy and a $10.00 cash award

Bookmark Illustration Contest Winners

1\textsuperscript{st} Place
Receives a trophy and a certificate

2\textsuperscript{nd} Place
Receives a trophy and a certificate

3\textsuperscript{rd} Place
Receives a trophy and a certificate

Congratulations!

Contest Winners along with Envirothon Teams and the RCW Student Candidate will be recognized at the Mecklenburg Soil and Water Conservation District Banquet in the spring.
<table>
<thead>
<tr>
<th>Place</th>
<th>Student</th>
<th>Grade</th>
<th>Teacher</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Isaiah Goodwin</td>
<td>K</td>
<td>Caroline Keigher</td>
<td>Hickory Grove Elementary School</td>
</tr>
<tr>
<td>1st</td>
<td>Aabhya Kulkarni</td>
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<td>Debra Baker</td>
<td>Sharon Elementary School</td>
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<tr>
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<td>Kyle Williams</td>
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<td>Lori Townsend</td>
<td>Charlotte Country Day School</td>
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<tr>
<td>1st</td>
<td>Reese Doherty</td>
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<td>Diane Johnson</td>
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<td>1st</td>
<td>Emily Eaton</td>
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<td>Julie Bartlett</td>
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<tr>
<td>3rd</td>
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<td>Arumy Hernandez Palacios</td>
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<td>Diane Johnson</td>
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<tr>
<td>3rd</td>
<td>Jacob Burgess</td>
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<td>Julie Bartlett</td>
<td>Charlotte Christian School</td>
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### 2017-2018 ESSAY CONTEST WINNERS

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<tbody>
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<td>1st</td>
<td>Avery Gurley</td>
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<td>Julie Bartlett</td>
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<td>Julie Bartlett</td>
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<td>3rd</td>
<td>Sydney Grace Shamp</td>
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<td>Julie Bartlett</td>
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### 2017-2018 PUBLIC SPEAKING CONTEST WINNER

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<tbody>
<tr>
<td>1st</td>
<td>Felicite Hangyas</td>
<td>8</td>
<td>Michael Landers</td>
<td>Community House Middle School</td>
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### 2017-2018 ENVIROTHON TEAM WINNERS (Southern Piedmont Envirothon)

<table>
<thead>
<tr>
<th>Place</th>
<th>Team</th>
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<th>School</th>
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<tr>
<td>5th</td>
<td>Chargers A</td>
<td>6-8</td>
<td>Brandy Jenner</td>
<td>Jay M. Robinson Middle School</td>
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<tr>
<td>6th</td>
<td>Chargers B</td>
<td>6-8</td>
<td>Brandy Jenner</td>
<td>Jay M. Robinson Middle School</td>
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<tr>
<td>7th</td>
<td>Chargers C</td>
<td>6-8</td>
<td>Brandy Jenner</td>
<td>Jay M. Robinson Middle School</td>
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</tbody>
</table>

The NC Envirothon was held April 27-28, 2018 at Cedarock Park in Alamance County. There were 50 middle school teams and 52 high school teams that participated. The Chargers B won 7th Place in the competition.

Rosemary Alf was selected the Student Candidate for the 2018 Resource Conservation Workshop.
What Is Soil?

Soil is a mixture of minerals, air, water and dead and rotting remains of plants and animals (organic matter) and LOTS of living organisms. Soil is alive . . . it has parents, it gets old, it breathes!

Soils make our lives possible. Without soils we wouldn’t have plants – so no food to eat or oxygen to breathe. We wouldn’t have a place to build, a place to play, clothes to wear, or forests for wildlife. It would be hard to live for even one day without soils. Think about what a day would be like if we didn’t have any soil on earth.

• Soil helps clean water by filtering it.
• Soil helps make our climate moderate by absorbing and releasing heat.
• Roots loosen the soil, allowing oxygen to penetrate. This benefits animals living in the soil.
• There are more organisms in one shovel full of soil than all of the people living on planet Earth.
• Soil formation varies, but some scientists have found that it takes 1,000 years to form ½ inch of soil.
• There are thousands of different kinds of soils on Earth, because they are constantly being created, and changing and even being destroyed.

Reference Source: National Association of Conservation Districts – Student Booklets “The Living Soil” and “Dig It!”
CLORPT

CLORPT is an equation for soil formation.

CLimate - Soil is formed when rocks and minerals are weathered and broken down. Temperature and the amount of rain that falls can either speed up or slow down chemical reactions. Warmer temperatures usually speed reactions up, cooler temperatures slow them down.

Organism - Animals that dig burrows, plant roots, worms, insects and microorganisms all physically and chemically weather soil.

Relief - The slope of the land or how steep the hill is. Relief is also what direction the land faces. The relief of the land influences how many hours of sunlight the soil gets, its temperature, how much water runs off of it and how many plants live in it.

Parent Material - Yes, it's true, soil has parents. A soil's parents are the original rocks or sediments that it came from. The rocks could have been huge boulders that were right there all the time, or smaller rocks or sediments of sand, silt and clay that were carried in the wind or water.

Time - Breaking down rocks and minerals take a long time! “Weathering” will turn solid rock into soil.

Reference Source: National Association of Conservation Districts – Student Booklet “Dig It!”
Soil Vocabulary

**Actinomycetes** – A large group of bacteria that grow in long filaments that are too small to see without magnification. Actinomycetes generate the smell of “healthy soil,” and are important in decomposing cellulose, chitin, and other hard-to-decompose compounds, especially at higher pH levels. Many produce antibiotics.

**Bacteria** – Microscopic, single-celled organisms. They include the photosynthetic cyanobacteria (formerly called blue-green algae), and actinomycetes (filamentous bacteria that give healthy soil its characteristic smell).

**Best Management Practices (BMPs)** – Are methods that have been determined to be the most effective and practical means of preventing or reducing non-point source pollution to help achieve water quality goals.

**Biodiversity** – The variety of life in the world or in a particular habitat or ecosystem: the existence of many different kinds of plants and animals in an environment.
Soil Vocabulary

**Community** – All of the organisms that occupy a common habitat and that interact with one another.

**Conservation** – The wise use and management of natural resources (soil, water, air, plants, and animals) to fulfill human needs now and in the future.

**Cover Crop** – A crop planted to prevent soil erosion and to provide humus. Sentence Example: Landscapers planted grass (cover crop) to stop the erosion of the hillside.

**Decomposition** – The biochemical breakdown of organic matter into organic compounds and nutrients, and ultimately into its original components.

**Ecosystem** – The whole group of living and nonliving things that make up an environment and affect each other.
Soil Vocabulary

**Erosion** – A natural process that moves soil from one place to another by wind, water or other forces.

**Food Chain** – An arrangement of the organisms of an ecological community according to the order of predation in which each uses the next usually lower member as a food source.

**Food Web** – The interconnected community of organisms living all or part of their lives in the soil.

**Fungi** – Multi-celled, non-photosynthetic organisms that are neither plants nor animals. Fungal cells form long chains called hyphae and may form fruiting bodies such as mold or mushrooms to disperse spores. Some fungi such as yeast are single-celled.

**Habitat** – The place or environment where a plant or animal naturally or normally lives and grows.
Soil Vocabulary

**Humus** – Stabilized organic matter (living, dead and dead plants and animals) that is a form of mature, “finished” compost. The process of decomposition, that converts raw organic matter into humus, feeds soil microbes. Humus is rich in nutrients and alive with beneficial microbes. Humus acts as a sponge and can absorb 6x its weight in water, increasing a soil’s capacity to withstand drought. Humus stores carbon, acts as a carbon, acts as a buffer against soils that are too acidic or alkaline, and its dark color helps to warm up cold soil in spring.

**Nematodes** – Tiny, usually microscopic, unsegmented worms. Some are parasites of animals or plants. Most live free in the soil.

**No-Till** – A method of conservation farming where soil is not turned over by a plow; but instead a no-till planter creates a slit in the soil and slips in a seed. Planting is done over the previous crop residue that is left on the surface to protect soil quality and thus, water quality.
Soil Vocabulary

**Organic Matter** – Any material that is part of or originated from living organisms. Includes soil organic matter, plant residue, mulch, compost, and other materials.

**Protozoa** – Single-celled organisms with animal-like cells, including amoeba, ciliates, and flaggelates.

**Soil Conservation** – To protect soil from erosion, to keep it productive and out of waterways: to use and manage soil wisely now to ensure a rich soil resource for future generations.

**Soil Microbe** – A living thing (as a bacterium) that can only be seen with a microscope. Soil Microbes work to hold onto nutrients in the soil and convert nutrients locked in the soil. They produce “soil glue” that holds the soil particles together – like cement holding together the bricks of a house. They also help plants fight off pests and diseases. There are five different types of soil microbes; bacteria, actinomycetes, fungi, protozoa and nematodes.
Soil Vocabulary

**Soil Organism** – An individual animal, plant or single-celled life form that lives all or part of its life in the soil. Soil organisms do three things: Get food energy, grow, and reproduce while interacting within complex soil food webs.

**Soil Quality** – The continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. This definition speaks to the importance of managing soils so they are sustainable for future generations. To do this, we need to remember that soil contains living organisms that when provided the basic necessities of life - food, shelter, and water - perform functions required to produce food and fiber.

**Weathering** – The breakdown and changes in rocks and sediments at or near the Earth's surface produced by biological, chemical, and physical agents or combinations of them.

Reference Source:
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