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|  |  **2022** |
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# Summary of Competition

The Berks County Conservation District is excited to announce its fifth annual Paint the Rain School Competition. The competition is open to all Berks County schools grades 9-12 (this includes private, public, charter, home and/or online based education institutions). All group entries must have an adult teacher/advisor from their school.

The Berks County Conservation District will provide each participating class or school club with **one rain barrel, a gift card for $25** (to help with the cost of painting supplies)**, and an in-classroom presentation/technical support visit** from the Berks County Conservation District. ***All competitors must paint the rain barrel in the 2022 theme of “Healthy Soil: Healthy Life”*** and complete the associated education program. The Application Form (electronic or printed) must be received at the Berks County Conservation District no later than 5pm on Friday, December 18, 2021. Painted Rain Barrels must be ready to be picked up by the Berks County Conservation District no later than 5pm Friday, April 8, 2022. The Berks County Conservation District will make arrangements with you to pick up the rain barrel.

Judging will occur on Friday, April 22, 2022 from 11AM to 7PM and April 23rd from 11AM to 3PM at the Berks County Agricultural Center (located at 1238 County Welfare Road Leesport, PA 19533). The top three prizes will be awarded with recognition described in the *Prizes and Judging* Section. The formal recognition event will be held at the Berks County Conservation District / Farm Service Agency Annual Awards and Scholarship Banquet at a time to be determined.

On April 23rd, 2022, the rain barrels will be “auctioned” off to interested individuals, with proceeds going to the Berks County Conservation District Scholarship fund, which supports students interested in majoring in environmental education in college.

The Berks County Conservation District will provide the rain barrel, rain barrel painting instructions/tips, a $25 gift card to help with the cost of painting supplies, applicable Pennsylvania state science standards, and one in-classroom presentation/technical support.

Any questions can be directed to Jennifer Brooks at the Berks County Conservation District at 610-372-4657 ext: 212 or email at jennifer.brooks@berkscd.com.

The rain barrels for the competition will look just like this. They will have hardware installed and a closed top that cannot be opened. This barrel has been painted blue; the barrel you receive will not be painted.

### ***The Berks County Conservation District is a local agency, authorized by the Commonwealth, to serve the community in protecting soil and water resources***

# Rules

* Applicable age groups/grades: This contest is for Berks County high school aged students (typically 14-18 years old). We recognize that different school institutions split their classes differently, so we ask that you please submit applications and entries based on your best judgment. All Berks County education-based institutions are allowed to participate, this includes but is not limited to public, private, charter, web-based, and/or home-based education curriculums.
* All Application Forms need to be at the Berks County Conservation District **no later than 5pm Friday, December 18, 2021.** Interested schools should have the teacher/advisor complete the Application Form and submit it (electronically or mail) to the Berks County Conservation District.
	+ For email submissions, please send completed forms to Jennifer.Brooks@berkscd.com
	+ For mailed submissions, please send to Berks County Conservation District 1238 County Welfare Road Leesport PA 19533
* Painted rain barrel contest entries must be dry and ready to be picked up by the Berks County Conservation District no later than 5pm Friday, April 8, 2022 with the completed Rain Barrel Identification Form. The Berks County Conservation District will make arrangements with you to pick up the painted rain barrel between **9am and 5pm on Friday, April 8, 2022 or before**.
* Late Application Forms and/or Rain Barrel Entries may be excluded from judging. All persons submitting an Application Form will be notified of their contest status.
* Schools will be limited to **one barrel per school** due to a limited supply of barrels.
* All groups must have a teacher/advisor identified from their school.
* If you are submitting a rain barrel for entry, the Berks County Conservation District will provide you with: one rain barrel, a gift card for $25 (to help with the cost of painting supplies), and an in-classroom presentation/technical support visit from the Berks County Conservation District.
* Three participants are the minimum required entries to run a successful competition. If less than three entries are received, the competition-end of the program may be suspended. Participants will be notified if the project will continue on a non-competitive basis and all entries will receive some form of recognition.
* The Berks County Conservation District will deliver the rain barrel to your school in January of 2022.
* Rain barrels will be judged by the public during the times of 11AM to 7PM on April 22, 2022 as well as 11AM to 2PM on April 23rd. For more information on judging and prizes refer to the *Prizes and Judging* section.
* **Schools cannot keep their rain barrels, nor will the barrels be returned to the schools**. The rain barrels will be auctioned off to the public and all proceeds will go to the Berks County Conservation District Scholarship fund, which supports students who wish to major in environmental related fields in college. Any schools that do not present a rain barrel by the required date must return the barrel and the gift card to the Berks County Conservation District. If a return is not possible then, a check payable to the Berks County Conservation District in the amount of $75 (which covers the cost of the barrel and the gift card) is required.
* Any rain barrel that enters the competition may appear on Berks County Conservation District and partner’s publications, website, and social media.
* Entering a rain barrel into the competition means that you have read the rules and will comply with competition regulations.

# Prizes & Judging

###### Prizes

Three prizes will be awarded: First, Second, and Third place.

* **First Place:** The 1st Place prize will be a $100 gift card to your school, club etc. and you will receive a certificate of recognition by the Berks County Commissioners. Your rain barrels will appear on Berks County Conservation District website, social media, and other brochures.
* **Second Place:** The 2nd Place prize will be $50 gift card to your school, club etc. and you will receive a Certificate from the Berks County Conservation District. Your rain barrels will appear on Berks County Conservation District website, social media, and other brochures.
* **Third Place:** The 3rd Place prize will be $25 gift card to your school, club etc. and you will receive a Certificate from the Berks County Conservation District. Your rain barrels will appear on Berks County Conservation District website, social media, and other brochures.

###### Judging

Judging will occur on Friday, April 22, 2022 at the Berks County Agricultural Center from 11AM-7PM (located at 1238 County Welfare Road Leesport, PA 19533); judging will also continue on Saturday, April 23rd. It will be conducted by the public that visits the Agricultural Center during the Berks County Conservation District Tree Seedling Sale and Backyard Basics event. **The public will vote for the rain barrel that they think best exemplifies the 2022 Theme, “*Healthy soil: Healthy Life***” Each individual will be granted one vote. The rain barrel with the most votes at the conclusion of the day will be the winner. Subsequent prizes will be determined based on the number of their respective votes. All results will be emailed to the participating schools.

* In the event of a tie, the District Executive, or an agent appointed on their behalf, will choose the final placement of the top three barrels. The decision of placement will be based on which barrel more exemplifies the current year’s theme. A tie is defined as a situation in which two or more rain barrels receive the same number of votes and rank first, second, and/or third.

# Important Dates

|  |  |
| --- | --- |
| All Application Forms due (electronically or mail) | Friday, December 18, 2021 by 5:00PM |
| Rain Barrels dropped off at your school | **Month of January 2022** |
| Rain Barrels Picked up & Rain Barrel Submittal Forms due | **Friday, April 8, 2022 by 5:00PM** |
| Rain barrels are judged | **Friday, April 22 from 11AM to 7PM; Saturday, April 23rd 11AM to 2PM** |
| Formal Recognition of First, Second, and Third Place | **Berks County Conservation District/Farm Service Agency Annual Awards and Scholarship Banquet (time to be determined)** |

# Contestant Application Form

### ***Berks County Conservation District must receive form no later than 5PM on Friday, December 18, 2021***

**Team Name: Click here to enter text.**

**School Name: Click here to enter text. Club/Class: Click here to enter text.**

**School Mailing Address: Click here to enter text.**

**Teacher/Advisor Name: Click here to enter text. Teacher/Advisor Title: Click here to enter text.**

**Teacher/Advisor Email: Click here to enter text. Teacher/Advisor Phone: Click here to enter text.**

**Number of Students Participating: Click here to enter text.**

[ ]  ***By checking this box, I am attesting that I am the adult supervisor of the above described students and I have read and agree to contest Rules and Prizes & Judging as outlined in the Application Packet.***

**Click here to enter text.**

Please describe how you will educate others about rain barrels and water conservation. Examples include, but are not limited to: article in school newspaper, informational event, art project, presentation at PTA/PTO meeting, talking with younger students, school radio PSA, and social media informational campaigns.

|  |  |
| --- | --- |
| **Space Below for Berks County Conservation District Use Only:** |  |
| *Date & Time Application Received:* |  |
| *BCCD Agent Receiving Application:* |  |
| *Date & Means BCCD Acknowledged Receipt of Application:* |  |

# Rain Barrel Submittal Form

### ***Berks County Conservation District must pick up the painted rain barrels no later than 5PM Friday, April 8, 2022. We will contact you to arrange pick up times (between 9AM and 5PM)***

**Team Name: Click here to enter text.**

**School Name: Click here to enter text. Club/Class: Click here to enter text.**

**Teacher/Advisor Name: Click here to enter text. Teacher/Advisor Title: Click here to enter text.**

**Teacher/Advisor Email: Click here to enter text. Teacher/Advisor Phone: Click here to enter text.**

**Number of Students Participating: Click here to enter text.**

[ ]  ***By checking this box, I am attesting that I am the adult supervisor of the above described students and I have read and agree to contest Rules and Prizes & Judging as outlined in the Application Packet.***

**Click here to enter text.**

Please describe your painted rain barrel so that we would be able to identify it.

|  |  |
| --- | --- |
| **Space Below for Berks County Conservation District Use Only:** |  |
| *Date & Time Barrel Picked-Up:* |  |
| *BCCD Agent Receiving Barrel:* |  |

# Painting Instructions & Tips

Your rain barrel should be cleaned, then painted and coated with polyurethane to protect the painted surface and maintain your artwork through all weather conditions. We have provided steps below to ensure your masterpiece will last through all weather conditions!

###### Recommended steps to follow:

1. Thoroughly clean the exterior surface of the barrel by wiping away excess dirt and grime with a clean rag soaked in a 1:1 mixture of vinegar and water.

*Illustration represents the rain barrel you will be painting. The rain barrel is 55 gallons with a closed lid.*

1. Use a fine- to medium-grade sandpaper (220 grit or finer) to lightly “rough up” the surface which will help the paint adhere to the plastic barrel. Be sure to use sand paper that does not leave scratches.
2. Wipe the barrel again with a dry cloth to get rid of any fine plastic shavings. Cover the spigot and overflow valve with masking tape and complete all of your painting in a well-ventilated area.
3. The barrel **must be primed** so that the paint adheres properly to the surface. Krylon Fusion spray paint or RustOleum Spray Paint for Plastic both make a spray primer that are great for a base coat (primer). Allow the primer to dry according to the directions on the container. Krylon Fusion and RustOleum primer can usually be found in local hardware and craft stores.
4. The barrel can be painted any way you like with ordinary **flat or semi-gloss acrylic paint (spray or liquid)**. The design is completely up to you. Some people use stencils, a pattern, or freehand with a brush. You can also finger paint the barrel. Flat or semi-gloss acrylic paint, Krylon Fusion and RustOleum products can usually be found in local hardware and craft stores.
	1. For those of you only interested in painting the barrel a solid color, spray paint is perfect. You probably will be able to cover a rain barrel with one – two cans of paint. These plastic barrels by nature need to be painted at a slower rate than most “standard” surfaces because of the surface tension characteristics of the polymer, as well as the waxy surface features. Allow the paint to dry according to the directions on the container.
5. Apply at least two coats of **flat or satin polyurethane spray** to help protect the painted barrel. Krylon Triple Thick Crystal Glaze or other polyurethane sprays or brush-on products can be used as long as they are plastic-appropriate. Be sure to allow the polyurethane to dry between coats.
6. Once your rain barrel is painted, coated and DRY, contact Jennifer Brooks to arrange for us to pick up the completed barrel at jennifer.brooks@berkscd.com or 610-372-4657 ext: 212. At the latest, rain barrels must be ready to be picked up by the Berks County Conservation District no later than 5pm Friday, April 8, 2022. The Berks County Conservation District will make arrangements with you to pick up the painted rain barrel between 9am and 5pm on Friday, April 8, 2022 or before.

*Painting Instructions and Tips taken from the Wabash River Enhancement Corporation*

Overflow/

Hose Connector ¾” ->

**35” High**

Rectangular Converter 2 ½” x 3 ½”

(Downspout is

inserted here)

**5”High**

Spigot, ¾” ->

**23” Wide**

Overflow/

Hose Connector ¾” ->

**35” High**

Rectangular Converter 2 ½” x 3 ½”

(Downspout is

inserted here)

**5”High**

Spigot, ¾” ->

**23” Wide**

# Applicability to State Science Standards

###### Grades 9-12:

**[Standard Area - 4.1: Ecology](http://www.pdesas.org/Standard/StandardsBrowser%22%20%5Cl%20%2225994)**

**Grade Level - 4.1.10: GRADE 10**

**Standard**

* 4.1.10.B: Explain the consequences of interrupting natural cycles.
* 4.1.10.E: Analyze how humans influence the pattern of natural changes (e.g. primary / secondary succession and desertification) in ecosystems over time.

**Grade Level - 4.1.12: GRADE 12**

**Standard**

* 4.1.12.B: Research solutions to problems caused by interrupting natural cycles.
* 4.1.12.C: Research how humans affect energy flow within an ecosystem.
	+ Describe the impact of industrial, agricultural, and commercial enterprises on an ecosystem
* 4.1.12.E: Research solutions addressing human impacts on ecosystems over time.

**[Standard Area - 4.2: Watersheds and Wetlands](http://www.pdesas.org/Standard/StandardsBrowser%22%20%5Cl%20%2225994)**

**Grade Level - 4.2.10: GRADE 10**

**Standard**

* 4.2.10.A: Examine the interactions between abiotic and biotic factors within a watershed.
	+ Describe how topography influences the flow of water in a watershed.
* Describe how vegetation affects water runoff.
	+ Investigate and analyze the effects of land use on the quality of water in a watershed.
* 4.2.10.B:  Examine how human interactions impact wetlands and their surrounding environments.
	+ Describe how land use decisions affect wetlands
* 4.2.10.C: Explain the relationship between water quality and the diversity of life in a freshwater ecosystem.
	+ Explain how limiting factors affect the growth and reproduction of freshwater organisms.
* 4.2.10.D:
	+ Compare and contrast scientific theories.
	+ Know that both direct and indirect observations are used by scientists to study the natural world and universe.
	+ Identify questions and concepts that guide scientific investigations.
	+ Formulate and revise explanations and models using logic and evidence.
	+ Recognize and analyze alternative explanations and models.

**Grade Level - 4.2.12: GRADE 12**

**Standard**

* 4.2.12.A: Examine environmental laws related to land use management and its impact on the water quality and flow within a watershed.
* 4.2.12.B: Analyze the effects of policies and regulations at various governmental levels on wetlands and their surrounding environments.
	+ Examine various public policies relating to wetlands.
	+ Investigate the intended and unintended effects of public policies and regulations relating to wetlands.
* 4.2.12.C: Analyze the effects of policies and regulations at various governmental levels on water quality.
	+ Assess the intended and unintended effects of public policies and regulations relating to water quality.
* 4.2.12.D:
	+ Examine the status of existing theories.
	+ Evaluate experimental information for relevance and adherence to science processes.
	+ Judge that conclusions are consistent and logical with experimental conditions.
	+ Interpret results of experimental research to predict new information, propose additional investigable questions, or advance a solution.
	+ Communicate and defend a scientific argument.

**[Standard Area - 4.3: Natural Resources](http://www.pdesas.org/Standard/StandardsBrowser%22%20%5Cl%20%2225994)**

**Grade Level - 4.3.10: GRADE 10**

**Standard**

* 4.3.10.A: Evaluate factors affecting the use of natural resources.
	+ Evaluate the effect of consumer demands on the use of natural resources.
	+ Analyze how technologies such as modern mining, harvesting, and transportation equipment affect the use of our natural resources.
	+ Describe how local and state agencies manage natural resources.
* 4.3.10.B: Analyze how humans manage and distribute natural resources.
	+ Describe the use of a natural resource with an emphasis on the environmental consequences of extracting, processing, transporting, using, and disposing of it.
	+ Analyze the impact of technology on the management, distribution, and disposal of natural resources.
* 4.3.10.C:
	+ Compare and contrast scientific theories.
	+ Know that both direct and indirect observations are used by scientists to study the natural world and universe.
	+ Identify questions and concepts that guide scientific investigations.
	+ Formulate and revise explanations and models using logic and evidence.
	+ Recognize and analyze alternative explanations and models.

**Grade Level - 4.3.12: GRADE 12**

**Standard**

* 4.3.12.A: Evaluate the advantages and disadvantages of using renewable and nonrenewable resources.
	+ Explain how consumption rate affects the sustainability of resource use.
* 4.3.12.B: Analyze factors that influence the local, regional, national, and global availability of natural resources.
	+ Compare the use of natural resources in different countries.
	+ Analyze the social, economic, and political factors that affect the distribution of natural resources (e.g., wars, political systems, classism, racism).
* 4.3.12.C:
	+ Examine the status of existing theories.
	+ Evaluate experimental information for relevance and adherence to science processes.
	+ Judge that conclusions are consistent and logical with experimental conditions.
	+ Interpret results of experimental research to predict new information, propose additional investigable questions, or advance a solution.
	+ Communicate and defend a scientific argument.

**[Standard Area - 4.5: Humans and the Environment](http://www.pdesas.org/Standard/StandardsBrowser%22%20%5Cl%20%2225994)**

**Grade Level - 4.5.10: GRADE 10**

**Standard**

* 4.5.10.A: Explain how public policy encourages or discourages the sustainable use of natural resources.
	+ Research laws and policies that address the sustainable use of natural resources (e.g., solid and liquid waste management, industry, agriculture and enterprise).
* 4.5.10.C: Analyze real-world data and explain how point and non-point source pollution can be detected and eliminated.
	+ Compare and contrast the environmental effects of different industrial strategies.
* 4.5.10.E: Describe the impact of occupational exposure to pollutants.
	+ Analyze laws and regulations designed to protect human health.
	+ Analyze efforts to prevent, control, and/or reduce pollution through cost and benefit analysis and risk management.
* 4.5.10.F:
	+ Compare and contrast scientific theories.
	+ Know that both direct and indirect observations are used by scientists to study the natural world and universe.
	+ Identify questions and concepts that guide scientific investigations.
	+ Formulate and revise explanations and models using logic and evidence.
	+ Recognize and analyze alternative explanations and models.

**Grade Level - 4.5.12: GRADE 12**

**Standard**

* 4.5.12.C: Analyze the costs and benefits of means to control pollution.
	+ Analyze the role of technology in the reduction of pollution.
	+ Research and analyze the local, state, and national laws that deal with point and non-point source pollution.
	+ Explain mitigation and its role in maintaining environmental health.