



Rain Garden Maintenance

How do you keep your rain garden functioning as it was designed to function? What maintenance must be performed to keep your garden in tip-top shape?

In this final module, students learn how to care for a rain garden over time, including weeding, mulching, pruning, watering, and observing seasonal changes. They'll understand how routine maintenance supports stormwater function, plant health, and overall garden longevity. Activities include board games, tactile water absorption tests, and classroom diagnostics.

Contents:

- Teacher's Guide
- Vocabulary List
- Introduction
- Activity A - Stop the Stomp
 - Reflection
- Activity B - Maintenance Mission Board Game
 - Rules
 - Scoring Sheet
- Activity C - Garden Doctor Game Show
 - Worksheet
 - Answer Key

Science State Standards:

Activity 1A

- K.1, K.2, K.4, K.61.1, 1.2, 1.3, 1.6

Activity 1B

- 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.2, 3.4, 3.6

Activity 2A

- 4.1, 4.2, 4.4, 5.2, 5.4, 5.5

Activity 2B

- 6.1, 6.4, 6.5

Activity 3

- 7.1, 7.4, 7.7, 8.2, 8.3, 8.4, 8.7, B.1.32, 1.37, Env. 1.3, 1.4, 1.14, P.S. 1.1, 1.3

Teacher's Guide

Objective:

The goal of this module is to:

- Educate students on the maintenance requirements of a rain garden, including soil aeration, weed identification and removal, watering, litter prevention/control
- Demonstrate the effects of soil compaction on water absorption and plant growth
- Show the seasonal cycle of rain garden care and when to water, weed, and prune
- Reinforce the importance of using mulch correctly and avoiding harmful tools or chemicals
- Encourage collaborative problem-solving through simulated garden “checkups” and repair planning
- Foster long-term stewardship by teaching students how to observe, record, and adapt to changing garden conditions
- Maintain a rain garden to additionally maintain other species, like pollinators, as well as habitat biodiversity, creating environmental resiliency, and aesthetic value.

Page	Activity	Grade
1	Activity A - Stop the Stomp	K - 8
2	Activity B - Maintenance Mission Board Game	6 - 12
3	Activity C - Garden Doctor Game Show	4 - 8

Vocabulary List

Maintenance – The ongoing care and upkeep of a garden to keep it healthy and working well.

Native plants – Plants that naturally grow in a specific region and are adapted to the local environment.

Perennial – A plant that lives for more than one year and returns each growing season.

Established – When a plant's root system is strong and it can survive on its own.

Compacted soil – Soil that has been compressed so it holds less air and absorbs less water.

Weeds – Unwanted plants that grow quickly and compete with native plants for resources.

Pioneer species – Fast-growing plants that are usually the first to appear in disturbed areas.

Watering (deep watering) – Applying water so that it soaks deep into the soil to encourage strong root growth.

Soaker hose – A hose that slowly releases water directly into the soil, ideal for watering gardens without causing erosion.

Pruning – Cutting back parts of plants to help shape them, improve health, or remove dead growth.

Mulch – Material, often shredded wood, spread on the soil to retain moisture, prevent weeds, and reduce erosion.

Double-shredded hardwood mulch – A type of mulch that locks together and resists being washed away.

Erosion – The process of soil being washed or blown away, often by water or wind.

Deadheading – Removing spent flowers to encourage new blooms (can be introduced in extension activities).

Water infiltration – The process of water soaking into the soil.

Overwatering – Adding too much water, which can harm roots and cause runoff.

Surface watering – Watering only the top of the soil or leaves, rather than soaking deep into the ground.

Seed head – The part of a plant that holds seeds, often left in fall to feed birds.

Growing season – The time of year when plants are actively growing and blooming.

Seed head - The part of a plant that holds seeds, often left in fall to feed birds.

Growing season - The time of year when plants are actively growing and blooming.

Absorption – The process of water soaking into the soil.

Infiltration rate - How quickly water enters the soil; often demonstrated in activities.

Runoff - Water that flows over the ground instead of soaking in.

Saturation - When soil is full of water and can't absorb any more.

Root system - The network of roots that support and feed a plant (critical in soil stability and water uptake).

Crowding - When plants or weeds grow too close together, limiting space, water, or sunlight.

Thinning - Removing some plants or stems to reduce crowding and improve airflow and growth.

Dormancy - A period when plants stop growing, typically in winter.

Bloom cycle - The time during which a plant flowers. **Seasonal care** - The different tasks needed depending on the time of year.

Introduction

Rain Garden Maintenance

Rain gardens may look like regular gardens, but they have an important job. In addition to being beautiful spaces filled with plants and pollinators, they are designed to soak up rainwater and clean it before it reaches local waterways. Just like any garden, a rain garden needs regular care, especially in its first few years. This early maintenance is key to helping the garden do its job well and grow strong enough to thrive on its own.



During the first one or two years after planting, rain garden plants are still getting established. During this time, the garden may need more frequent weeding, watering, mulching, and pruning. Most rain gardens are planted with native perennial plants—species that are well adapted to the local climate and soil. These plants don't need fertilizers, they survive winter on their own, and once their roots are established, they can handle heavy rain or long dry spells. While they may appear to die back in the winter, these perennials come back year after year without needing to be replanted.

Soil

The soil in a rain garden is specially prepared before planting. It's often loosened with compost or peat moss to make it more absorbent. This creates air pockets between soil particles, which allows water to soak in more easily. However, walking on this loosened soil pushes the air out and compacts it, making it harder for water to infiltrate. This is why it's important not to stomp through the garden—hence the rule, “Stop the Stomp!” Instead of walking into the center of the garden, weeding and other maintenance should be done from the edges to protect the structure of the soil.



Weeding

Weeding is especially important in the early stages of the garden. Many weeds are fast-growing pioneer species that can quickly take over, competing with native plants for sunlight, water, and space. Weeds should be pulled by hand, making sure to remove the roots, and it's best to pull them before they flower and release seeds. Over time, as the native plants grow larger and fill in the garden, there will be fewer open spots for weeds to take hold.

Watering

Watering is another essential task during the first two years. The young plants in a rain garden need about one inch of water per week to help develop deep root systems. Shallow watering (just sprinkling the leaves) doesn't help and can even be harmful. Instead, water should soak into the soil deeply. This can be done using a soaker hose or by gently running water over a rock or hard surface to prevent erosion. If a sprinkler is used, small cups can be placed around the garden to measure how much water is being applied. Watering for 5-10 minutes will provide the garden with about 1 inch of water.



After the first couple of years, the plants usually don't need much extra water unless there has been no rain for two weeks or more. Some gardeners use rain barrels to collect water from rooftops, which can be used during dry spells to reduce waste. Simple tools like watering cans, cups, or soaker hoses all help deliver water more directly and efficiently.

Pruning

Pruning is also part of caring for a rain garden. It helps shape plants, improve their health, and encourages more flowers to bloom. Dead vegetation should be cleared away in the fall or early spring. Fall pruning keeps things tidy, but leaving some plants (especially grasses and seed heads) can provide food for birds and add beauty to the winter landscape. If pruning is done in the spring, care should be taken not to remove new growth at the base of the plants. Giving each plant the right amount of space to grow prevents overcrowding, which can lead to disease, blocked sunlight, or limited airflow. Pruning or thinning may also be needed to keep the garden balanced.



Mulching

Mulching is an important tool for keeping the garden healthy. In the first few seasons, adding a layer of double-shredded hardwood mulch about three inches thick helps retain moisture, prevent erosion, and suppress weed growth. This type of mulch is preferred because it locks together and is less likely to float away during heavy rain.

Over time, as the native plants spread and cover the garden floor, mulch may no longer be necessary. Weed killers should never be used in a rain garden, as they can harm the plants and pollute the water. Mulch comes in many forms, but not all are equal. Bark chips tend to float and scatter during heavy rain. Double-shredded hardwood mulch fits together tightly, making it better at staying put during storms.



One of the most important parts of maintenance is simply observing your garden. Looking for changes in leaf color, signs of pests, or overly wet or dry soil can help gardeners fix small problems before they become big ones. When properly maintained, a rain garden becomes a low-maintenance, high-impact way to protect our waterways. Through thoughtful weeding, watering, pruning, and mulching, students and community members can support these living systems as they grow stronger each year.

In addition to managing stormwater and reducing runoff, rain gardens provide a wide range of benefits to local ecosystems. Many rain gardens are planted with a variety that bloom at different times of the year, offering continuous visual interest and color throughout the year. This extended bloom time also supports a wide range of pollinators and wildlife in all seasons. Birds, butterflies, and beneficial insects are drawn to rain gardens, increasing the biodiversity of the area.



Rain gardens also serve as demonstrations of sustainable landscaping. Unlike traditional lawns, which often require frequent watering and mowing, native plants in rain gardens are adapted to local conditions and generally need less maintenance once established. They improve soil health, reduce erosion, and help clean pollutants from the water as it filters through their roots. When well-maintained, rain gardens not only protect our water systems but also create thriving green spaces that benefit both people and the planet.

Activity A - Stop the Stomp

This Stop the Stomp demonstration is designed to be shown as a class or set up in small stations. This activity helps students understand how mulch, roots, and soil structure affect water absorption and erosion control. Students will compare different "rain garden layers" to test how well each absorbs and retains water. This experiment reinforces concepts from Modules 1 and 2—how rain gardens slow down, spread out, and soak in water.

Activity Time: **Grade Level**

45 Minutes K - 6

Objectives:

By the end of this activity, students will be able to:

- Compare water absorption of different surface types: bare soil, mulch, compacted soil, and root-filled soil
- Observe the importance of mulch in reducing runoff and protecting roots
- Identify how different materials impact erosion and infiltration
- Record data using charts and make evidence-based conclusions

Materials Needed:

- 4 small clear plastic cups or trays with drainage holes
- Catch trays or paper towels
- Spray bottle or pipette
- Water
- Mulch (shredded paper, wood chips, or cotton balls)
- Soil (loose and compacted)
- Root simulation (yarn, string, or cut grass clumps)
- Labels & charting worksheet

Setup & Prep:

- Prepare 4 test cups/trays:
 - Cup A: Bare, dry soil
 - Cup B: Compacted soil (press it down)
 - Cup C: Soil with mulch on top
 - Cup D: Soil with "roots" mixed in (or grass plug)
- Label each cup.
- Prepare data sheets with observation sections and a space for conclusions.

Instructions:

- Have students predict which surface will absorb the most water.
- Add equal water amounts to each cup using a spray bottle or pipette.
- Observe how fast the water disappears, what runs off, and what stays.
- Record results: soak rate, runoff, water pooling, etc.
- Discuss:
 - Which surface worked best for a rain garden?
 - How would mulch and roots help protect plants?

Activity A - Stop the Stomp Reflection

1. Which cup absorbed the most water, and why do you think that is?

2. What differences did you notice between the compacted soil and the loose soil?

3. How did the mulch affect how much water the soil absorbed?

4. What happened to the water when the tray had no mulch or root structure?

5. Why is it important for soil to stay “fluffy” in a rain garden?

Activity A - Stop the Stomp Reflection

6. What does it mean when we say soil is “compacted”? What causes this to happen?

7. Why do we try not to walk through the center of a rain garden?

8. How does mulch help a rain garden during a heavy rainstorm?

Activity B - Maintenance Mission Board Game

The Maintenance Mission Board Game is designed for small groups, either playing as individuals or as separate small groups. Students will learn how to care for a rain garden by collecting helpful plants and tools, managing unpredictable weather, responding to pests, and making good plant care choices. Players need to collect cards from all seasons (Spring, Summer, Fall) while building their garden and scoring points based on their decisions.

Activity Time: **Grade Level**

45 Minutes 6 - 12

Objectives:

Students will:

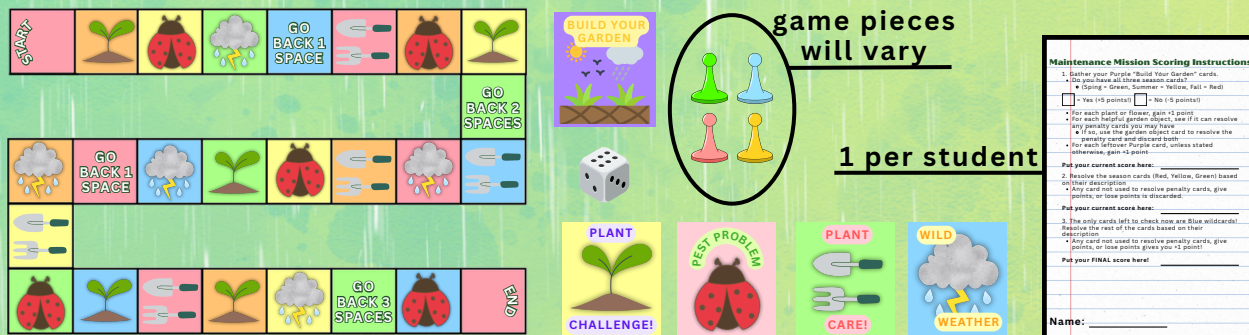
- Understand the basic seasonal tasks involved in rain garden maintenance.
- Identify tools, plants, and practices that support rain garden health.
- Respond to common challenges such as erosion, pests, drought, and overflow.
- Apply knowledge of plant care, soil, water management, and pollinators.

Materials Needed:

- 1 Game Board
- 5 Deck piles
 - Build Your Garden (32 cards)
 - Plant Challenge (16 cards)
 - Wild Weather (16 cards)
 - Pest Problem (16 cards)
 - Plant Care (16 cards)
- Dice
- Game pawns or tokens (1 per player; can be anything!)
- Point tracker sheets
- Instructions/rules handout for students

Setup & Prep:

- Print out the game board as large as possible, but a single page will do.
 - Print out each of the card decks with front and back printing.
 - Laminating the decks before cutting is recommended
 - Cut each of the cards along the dotted line
- Setting up the game should look as follows:



Instructions:

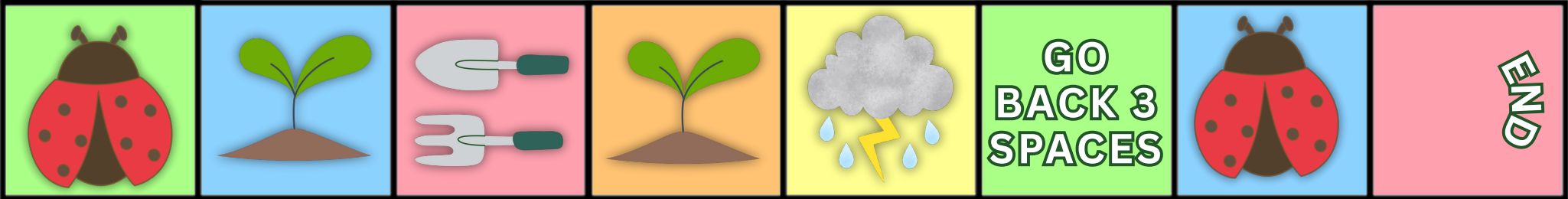
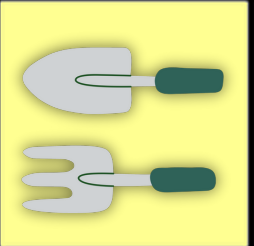
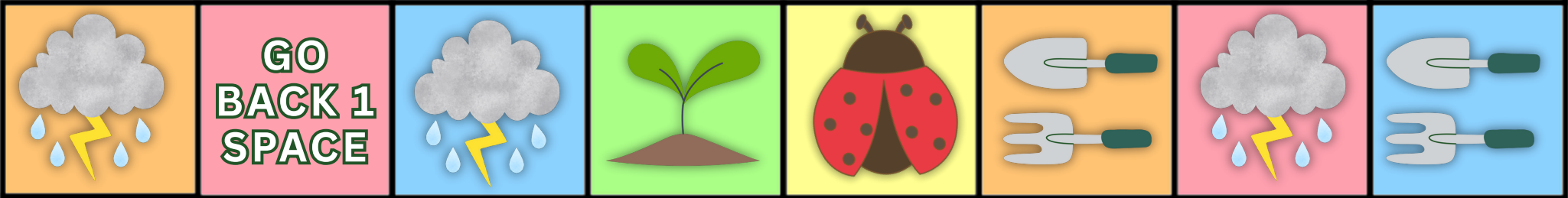
The Maintenance Mission Board Game can be played with 2 - 4 people or groups that collaborate as one player. All cards can be laid face-up or hidden in the hand.

- At the start of the game, each player draws 4 Purple “Build Your Garden” cards.
 - Purple cards are different parts of your garden that you collect throughout the game. These include plants and helpful garden objects or events.
 - Purple cards also have “seasons” on the backside (Spring = Green, Summer = Yellow, Fall = Red), which are different than the colors of the face cards. At the end of the game, students must have all three “seasons” to gain an extra +5 points. Otherwise, they lose -5 points. This represents the advantage of having a diverse garden.
 - This means they must be careful when discarding cards or using them to solve problems!

- Decide who goes first based on who has the highest dice roll.
- At the start of each turn, draw a Purple “Build Your Garden” card.
- Roll the die and move that many spaces
 - Depending on the space you land on, either move back as instructed or draw the corresponding card.
 - For moving, go back from the instructed number, which is either 1, 2, or 3 spaces. You do not draw the card on the space you move back to.
 - For drawing, there are 4 categories of Cards:
 - **Plant = Yellow card = “Plant Challenges”**
 - Students will answer questions about maintenance for points, or roll the die for questions of chance.
 - **Ladybug = Red card = “Pest Problems”**
 - Students will try to remove weeds or pests using the cards they have, or roll the die for questions of chance.
 - If the weeds/pests can be removed, discard both the problem card and whichever card you used to remove them.
 - If the weeds or pests cannot be removed, hold onto the card for a second chance to resolve it at the end.
 - **Garden Tools = Green card = “Plant Care”**
 - Students will keep these cards to use them to solve pest, weed, or weather problems.
 - **Thunderstorm = Blue card = “Wild Weather”**
 - Students will deal with weather problems and solve them if possible, or deal with the consequences.
 - If the weather problems can be solved, discard both the problem card and whichever card you used to remove them.
 - Otherwise, hold onto them until the end to resolve or lose points.
 - Once every student reaches the end, move on to tallying up the points.

Scoring is as follows:

- Gather the Purple “Build Your Garden” cards.
 - If you have all three season cards (Spring = Green, Summer = Yellow, Fall = Red), gain +5 points!
 - If not, -5 points!
 - For each plant or flower, gain +1 point
 - For each helpful garden object, see if it can resolve any penalty cards you may have
 - If so, use the garden object card to resolve the penalty card and discard both
 - For each leftover Purple card, gain +1 point, plus whatever the card says
 - (example: a card with +1 would turn into +2)
- Gather the Yellow “Plant Challenge” cards
 - Add up the number of questions you got right and add it to your running total.
- Gather the rest of the cards.
 - Using your Green “Plant Care” cards, resolve the Red “Pest Problem” and Blue “Wild Weather” cards.
 - See if any Green cards can solve a Red or Blue weed, pest, or weather problem.
 - Any leftover Green cards are to be discarded.
 - Any Red or Blue card not able to be resolved using helpful cards results in double the amount lost!
 - (for example, -1 points turns to -2 points)



Cardinal Flower



Wet-zone bloomer, attracts hummingbirds.

Little Bluestem



Grass that stabilizes soil and resists drought.

Blue Flag Iris



Loves wet soil; ideal for the center of rain gardens

Mulch Layer



Protects roots and retains moisture. Removes one weed card.

Purple Coneflower



Drought-tolerant, pollinator favorite.

Spicebush



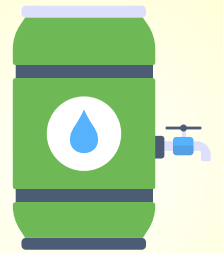
Shrub that thrives in rain gardens.

Culver's Root



Loved by bees and swallowtail butterflies

Rain Barrel



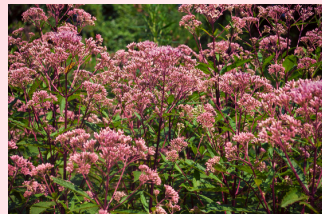
Collects water for dry spells.

Aromatic Aster



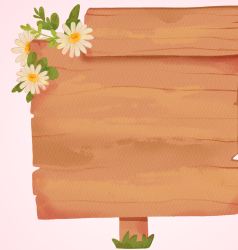
Late-season nectar source.

Joe-Pye Weed



Butterfly magnet—great for the back of a garden bed

Pollinator Meadow Sign



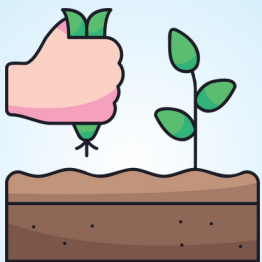
Bonus point if you have 3 pollinator plants.

Golden Alexanders



Supports native pollinators and beneficial insects

Weed Puller



Instantly remove a weed card event.

Helpful Neighbor



Trade a card with another player.

Pollinator Bonus



Gain 2 points if you have at least 2 flowering plants.

Surprise Rainstorm



Water all your plants! But choose someone else to flood (they lose -1 point.)

Eastern Red Columbine



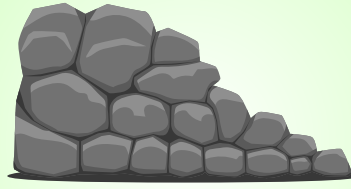
Spring native, great for pollinators.

Obedient Plant



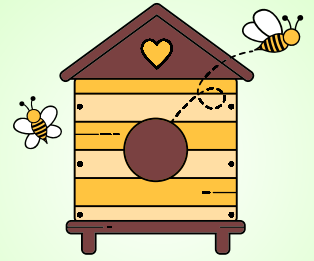
Supports long-tongued bees and hummingbirds

Rock Border



Helps control overflow and runoff.

Bee Hotel



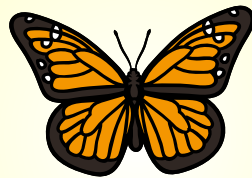
Habitat for native pollinators, removes one pest.

Black-Eyed Susan



Summer bloomer, attracts bees.

Butterfly



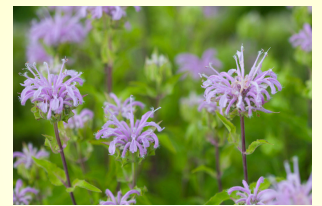
Wild card: cancels one pest event.

Swamp Milkweed



Supports monarch butterflies.

Wild Bergamot



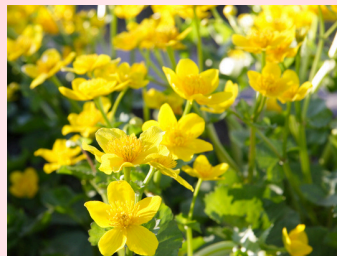
Use during drought or after new planting.

Boneset



Moist to wet areas, great for low zones

Marsh Marigold



Prefers wetter zones.

Native Bee



Adds pollinator points for every flowering plant you have.

Overflow Drain



Helps prevent flooding from storms.

Buttonbush



Perfect for the center or low zone of a rain garden

Bird Feeder



Adds +1 point for biodiversity if you have shrubs. Removes one pest.

Habitat Stone



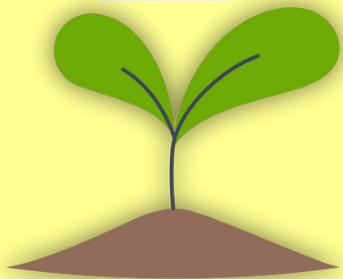
Attracts frogs, cancels next pest.

Invasive Alert!



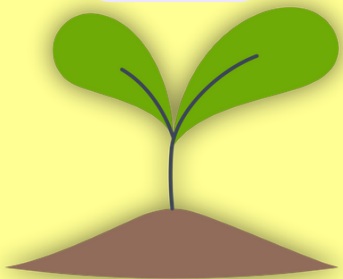
Force one opponent to discard a plant, unless they have mulch or something to remove pests.

PLANT



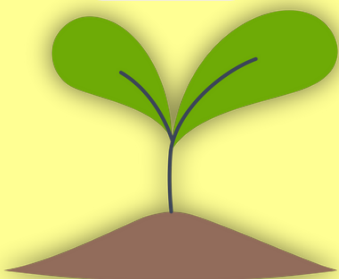
CHALLENGE!

PLANT



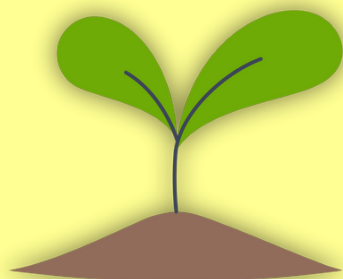
CHALLENGE!

PLANT



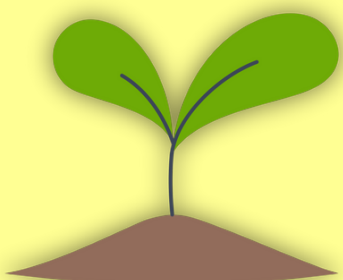
CHALLENGE!

PLANT



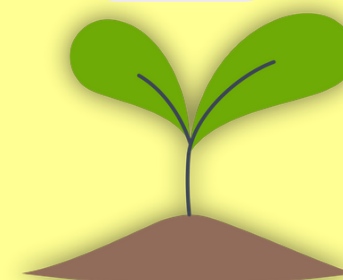
CHALLENGE!

PLANT



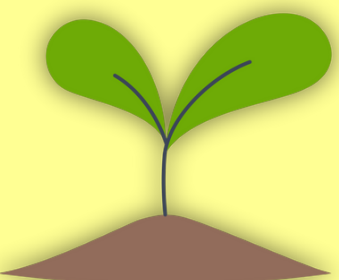
CHALLENGE!

PLANT



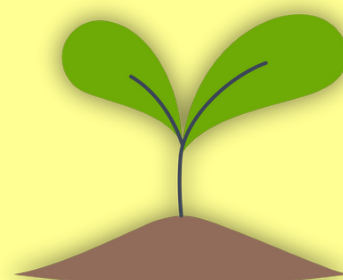
CHALLENGE!

PLANT



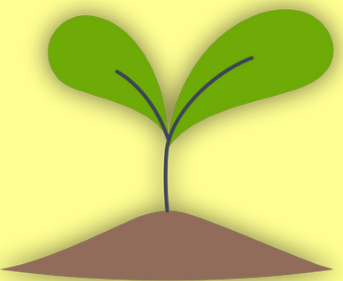
CHALLENGE!

PLANT



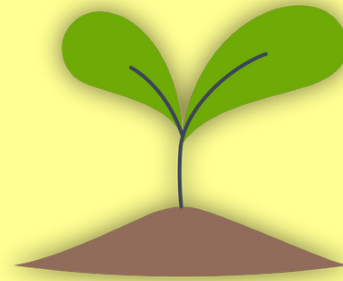
CHALLENGE!

PLANT



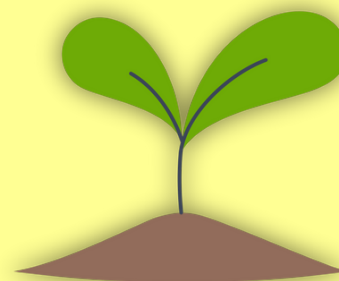
CHALLENGE!

PLANT



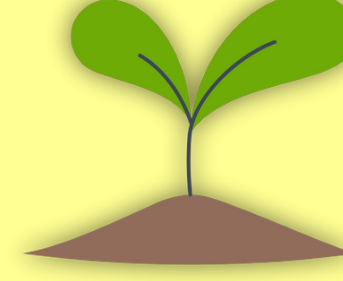
CHALLENGE!

PLANT



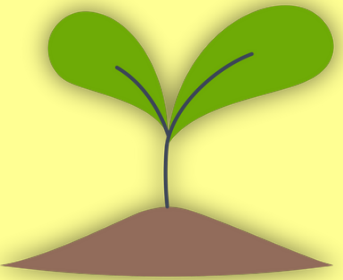
CHALLENGE!

PLANT



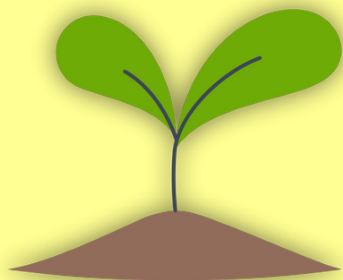
CHALLENGE!

PLANT



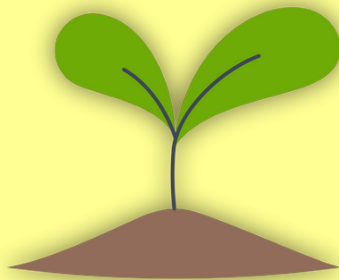
CHALLENGE!

PLANT



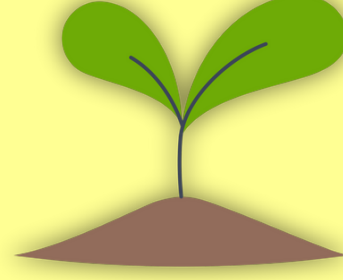
CHALLENGE!

PLANT



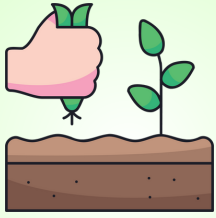
CHALLENGE!

PLANT



CHALLENGE!

Weed Check!



Can you name 1 common weed? If yes, +1 point.

Plant Your First Native



Draw a "Build your Garden" Card. +1 point if you drew a plant.

Soil Checkup



What type of soil drains best? If correct, +1 point.

Mulch Measured



What is the proper amount of mulch? If correct, +1 point.

Watering Question!



When is the best time of day to water? If correct, +1 point

Pruning Plan



Which part of the plant should you cut? If correct, +1 point

Heat Wave Choice



Water now, or risk it? Roll the dice. If even, you decide to water, and gain +1 point.

Pollinator Patrol



Identify 1 insect that helps your garden. If correct, +1 point.

Leaf Layer Decision



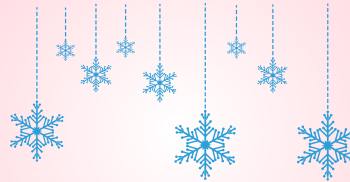
Leave leaves, or remove them? If correct, +1 point.

Final Harvest



Can you name 1 fall-blooming native flower? If yes, +1 point

Winter Prep Task



What's 1 thing to do before snow? If correct, +1 point

Seed Surprise



You saved some seeds. Roll the dice. If odd, they fail. If even, they succeed and you gain +1 point.

Garden Myth!



"Mulch should touch the plant stem." True or False? If correct, +1 point

Rapid Response!



Can you name 2 Native plants in 10 seconds? If yes, +1 points.

Quick Fix



Roll the dice. If odd, your fix breaks. If even, it holds; gain +1 point.

Team Check



Help out another player's garden by removing one pest card. You gain +1 points!

PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM



PEST PROBLEM

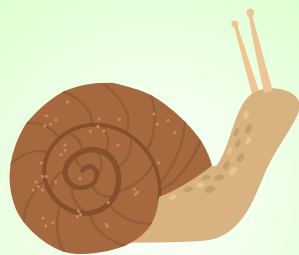


Dandelion Invasion



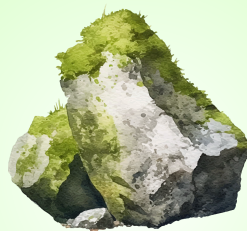
Must remove this weed or lose a turn.

Slugs Appear!



Lose 1 native plant if not addressed at the end.

Moss Overgrowth



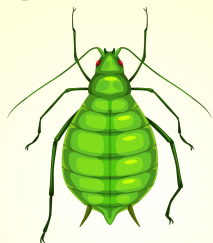
Must remove this at the end, or lose -1 point.

Rabbit Damage



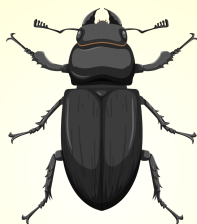
Remove this pest, or lose next turn replanting.

Aphid Swarm



Drain nutrients from flowers; remove one unless treated.

Japanese Beetles



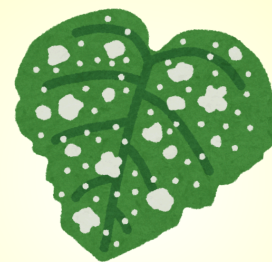
Eat leaves. Use Insect Net, remove this pest, or lose -1 point.

Fungus Spot



Mulch too wet! Remove mulch unless you have compost.

Mildew



Not enough airflow. Lose a turn pruning.

Falling Seed Weeds



If garden has weeds, lose 1 point.

Buried Trash



Litter from summer visitors; lose turn cleaning.

Invading Ivy



Must spend a Plant Care Card or lose turn removing it.

Wasp Nest



They sting you! Lose -1 point. Ouch!

Mystery Mold



Roll dice. If even, remove the mold. If odd, lose -1 point.

Squirrel Raid!



Roll dice. If even, shoo the squirrels away. If odd, lose -1 point from eating plants.

Helpful Spider!



Eats the pests! Cancel out a pest card.

Confused Weed!



Roll dice. If even, not a weed. If odd, it's a weed; lose -1 point.

Flash Flood Warning!



Lose 1 point unless you have a mulch, drain, or border.

Spring Rains



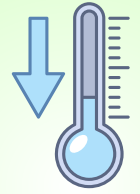
Lose 1 point unless you have a mulch, drain, or border.

Windstorm



Topples your tallest plant; lose -1 point.

Chilly Snap



Early bloomers are stunned. Lose 1 point unless covered with mulch or netting.

Scorching Week



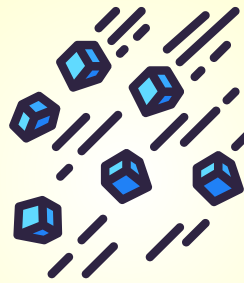
Drought risk! Lose 1 point, unless you have mulch, or you can water.

Sudden Downpour!



Overflow risk! Lose -1 point unless you have a mulch, drain, or border.

Hail Damage



Lose 1 random garden tool.

Dust Storm



Sediment builds; lose a turn while you're cleaning up.

Heavy Leaf Fall



Blocks drainage. Remove a Plant Care card.

First Frost



Plants need pruning or protection. Lose 1 point unless you have a garden tool, mulch, or netting

Slippery Rain



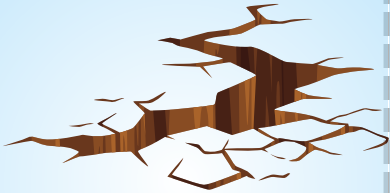
Garden is messy! All players skip next move.

Thunderstorm



Roll a die: 1-3 = -1 point, 4-6 = no effect.

Dry Spell



No rain for 2 rounds! During this time, discard any positive point cards you receive.

Perfect Weather!



No damage. Gain +1 point for good design.

Pollen Surge



Affects pollinators; lose 1 unless pollinator plants are planted.

Overflow Fail!



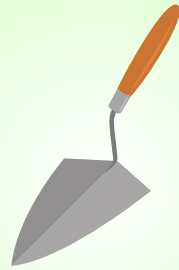
You weren't prepared for this emergency. Lose -1 point.

Bag of Mulch



Use to prevent erosion after a storm.

Weeding Trowel



Remove 1 weed card without penalty.

Plant Journal



Keep track of your plants; play to reroll on any space.

Pollinator Seeds



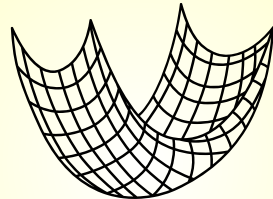
Attract bees and butterflies; gain +1 point.

Watering Can



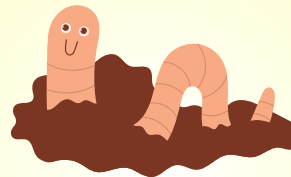
Use during a drought event to prevent wilt.

Shade Netting



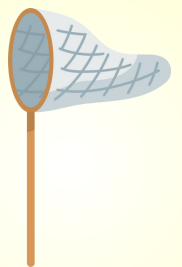
Protects plants from heat stress; cancel a summer pest card.

Compost Bin



Use to turn plant clippings into nutrients; gain +1 point.

Insect Net



Remove a pest with no penalty.

Pruning Shears



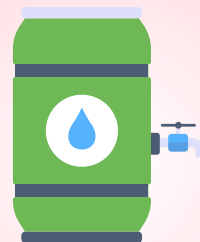
Use on overgrown plants; gain +1 for neatness.

Leaf Rake



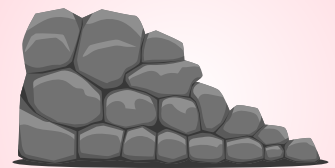
Clear debris quickly; prevents moisture mold card.

Rain Barrel



Collect extra water; use on drought or overflow.

Stone Border Kit



Redirects water safely; cancel overflow damage.

Borrowed Hose



Water anyone's garden; choose a teammate to help and remove one problem!

Volunteer Crew



Call in reinforcements to handle any 1 task instantly.

Broken Tool



Oh no! Lose this turn while fixing it.

Lucky Find!



Discover a native plant growing wild; gain +2 points!

Maintenance Mission Rules

This game can be played with 2-4 people or small groups! All cards can be laid face-up or hidden in your hand.

1. At the start of the game, each player draws 4 Purple “Build Your Garden” cards.

- Purple cards are different parts of your garden that you collect throughout the game.
 - These include plants and helpful garden objects or events!
 - Purple cards also have “seasons” on the backside (Spring = Green, Summer = Yellow, Fall = Red), which are different than the colors of the face cards (frontside).
- At the end of the game, you must have all three “seasons” to gain an extra +5 points.
 - Otherwise, you lose -5 points!
 - This means you must be careful when discarding cards or using them to solve problems!
 - Additionally

2. Decide who goes first based on who has the highest dice roll.

- At the start of each turn, draw a Purple “Build Your Garden” card.
- Roll the die and move that many spaces
 - If you land on a space that tells you to move back, do so that number, which will either be 1, 2, or 3 spaces.
 - You do not draw the card on the space you move back to.
 - On all other spaces, you will draw a card that matches one of the 4 categories of Cards:

Maintenance Mission Rules

- Plant = Yellow card = “Plant Challenges”
 - Most of these are garden maintenance questions! You will either answer these for points at the end, or roll the die for questions of chance.
- Ladybug = Red card = “Pest Problems”
 - These cards are weeds or pests that you will try to remove using helpful cards you have, or by rolling the die for questions of chance.
 - If the weeds/pests can be removed, discard both the problem card and whichever card you used to remove them.
 - If the weeds or pests cannot be removed, hold onto the card for a second chance to resolve it at the end.
 - Otherwise, you lose points at the end!
- Garden Tools = Green card = “Plant Care”
 - You keep these cards to use them to solve pest, weed, or weather problems.
- Thunderstorm = Blue card = “Wild Weather”
 - These cards deal with weather problems that you will try to solve, or lose points at the end.
 - If the weather problems can be solved, discard both the problem card and whichever card you used to remove them.
 - Otherwise, hold onto them until the end to resolve or lose points.
- Once every student reaches the end, move on to tallying up the points.

Maintenance Mission Scoring Instructions

1. Gather your Purple “Build Your Garden” cards.

- Do you have all three season cards?
 - (Spring = Green, Summer = Yellow, Fall = Red)

= Yes (+5 points!)

= No (-5 points!)

- For each plant or flower, gain +1 point
- For each helpful garden object, see if it can resolve any penalty cards you may have
 - If so, use the garden object card to resolve the penalty card and discard both
- For each leftover Purple card, unless stated otherwise, gain +1 point, plus whatever the card says (example: a card with +1 would turn into +2)

Put your current score here: _____

2. Gather the Yellow “Plant Challenge” cards

- Add up the number of questions you got right and add it to your running total.

Put your current score here: _____

3. Gather the rest of the cards.

- Using your Green “Plant Care” cards, see if you can resolve any of the Red “Pest Problem” or Blue “Wild Weather” cards.
 - If so, use the Green card to resolve the Blue or Red penalty card and discard both.
- Any leftover Green cards are to be discarded.
- Any Red or Blue card not able to be resolved using helpful cards results in double the amount lost!
 - (for example, -1 points turns to -2 points)

Put your FINAL score here! _____

Name: _____

Activity C - Garden Doctor Game Show

The Garden Doctor Game Show is designed to be played as a class. It can be done as individuals or in small groups. Its purpose is to test students' rain garden maintenance knowledge through a Kahoot quiz, an online game. Students will be asked questions from maintenance topics like weeds, soil, stormwater, or seasonal care. This review game reinforces vocabulary, problem-solving, and diagnostic thinking like real garden stewards!

Activity Time: 45 Minutes
Grade Level: K - 12

Objectives:

- Review key rain garden vocabulary and functions
- Diagnose and solve common garden maintenance issues
- Reinforce seasonal care concepts and best practices
- Collaborate and compete in an academic setting

Materials Needed:

- Kahoot Quiz link, projected to the students
- A way to answer the questions, which can be done in two ways:
 - Using electronics such as phones, iPads, or computers
 - If not available, scoring worksheets
 - Optional pencils for worksheets

Setup & Prep:

- Open the Kahoot quiz.
- <https://create.kahoot.it/details/a72d68ce-77aa-4baf-82eb-85f6753f327a>
 - It is recommended for your students to use an electronic method of answering questions if your classroom has access.
 - If available, ensure each student's electronic device is set up, or ready to navigate to <https://kahoot.it/>
 - If an electronic method is not available, print a scoring worksheet and ensure each student has a writing utensil.

Instructions:

- Open and project the Kahoot quiz main screen to the class.
 - If students are using electronics, have them navigate to **<https://kahoot.it/>**
 - From there, they will enter the special class code, provided when you open the Kahoot
 - Wait for the entire class to sign into the Kahoot quiz. They do not need to make an account. They only need to enter the code, then their name.
 - If students are using worksheets, make sure everyone is equipped with a writing utensil and prepared to start the quiz.
- Once everyone is logged in, you may start!
- There are 20 questions with 1 minute to answer each question.
 - Questions can be True or False, or multiple-choice fill-in-the-blank/general maintenance questions.
 - At the end of the 1 minute, the answer is revealed and the current top 5 scoreboard.
 - Students get more points depending on how fast they answer!
 - At the end of 20 questions, the top scores are revealed.

Activity C - Garden Doctor Worksheet

For questions 1-6, circle (or underline) if it's true or false.

1. **True or False:** Mulch helps prevent weeds and retain moisture in a rain garden.
2. **True or False:** Dandelions are a native Indiana plant that should be left in rain gardens.
3. **True or False:** It's best to plant rain gardens close to your house to collect the most water.
4. **True or False:** Deep roots help prevent erosion and absorb more runoff.
5. **True or False:** Leaf litter should be completely removed in the fall to keep your garden tidy.
6. **True or False:** You should use mulch that completely covers and touches the base of every plant.

For the rest of the questions, circle (or underline) the letter you wish to select.

7. Which of the following is a tool used to trim overgrown plants?

A

B

C

D

Activity C - Garden Doctor Worksheet

8. A rain garden should be placed at least ____ feet away from a building.

A **B** **C** **D**

9. Which soil type drains water the slowest?

A **B** **C** **D**

10. What should you do if your rain garden is flooding after a storm?

A **B** **C** **D**

11. Which of the following is a native pollinator plant for rain gardens?

A **B** **C** **D**

12. What is the best time of day to water your rain garden during summer?

A **B** **C** **D**

13. Which of these combinations shows a healthy rain garden practice?

A **B** **C** **D**

14. What's the best way to stop weeds from growing too fast in a rain garden?

A **B** **C** **D**

15. You notice a native plant wilting even though it rained yesterday. What should you do first?

A **B** **C** **D**

Activity C - Garden Doctor Worksheet

16. Which of these is the BEST reason to include a variety of plants in a rain garden?

A **B** **C** **D**

17. What is the main job of a rain garden during a storm?

A **B** **C** **D**

18. Which part of a plant helps prevent erosion the most?

A **B** **C** **D**

19. If your mulch washes away every time it rains, what should you do?

A **B** **C** **D**

20. What's the BEST way to attract pollinators like bees and butterflies to your rain garden?

A **B** **C** **D**

Answer Key - Garden Doctor Worksheet

1. True
2. False
3. False
4. True
5. False
6. False
7. B
8. C
9. D
10. C
11. C
12. D
13. A
14. B
15. C
16. B
17. D
18. C
19. B
20. C