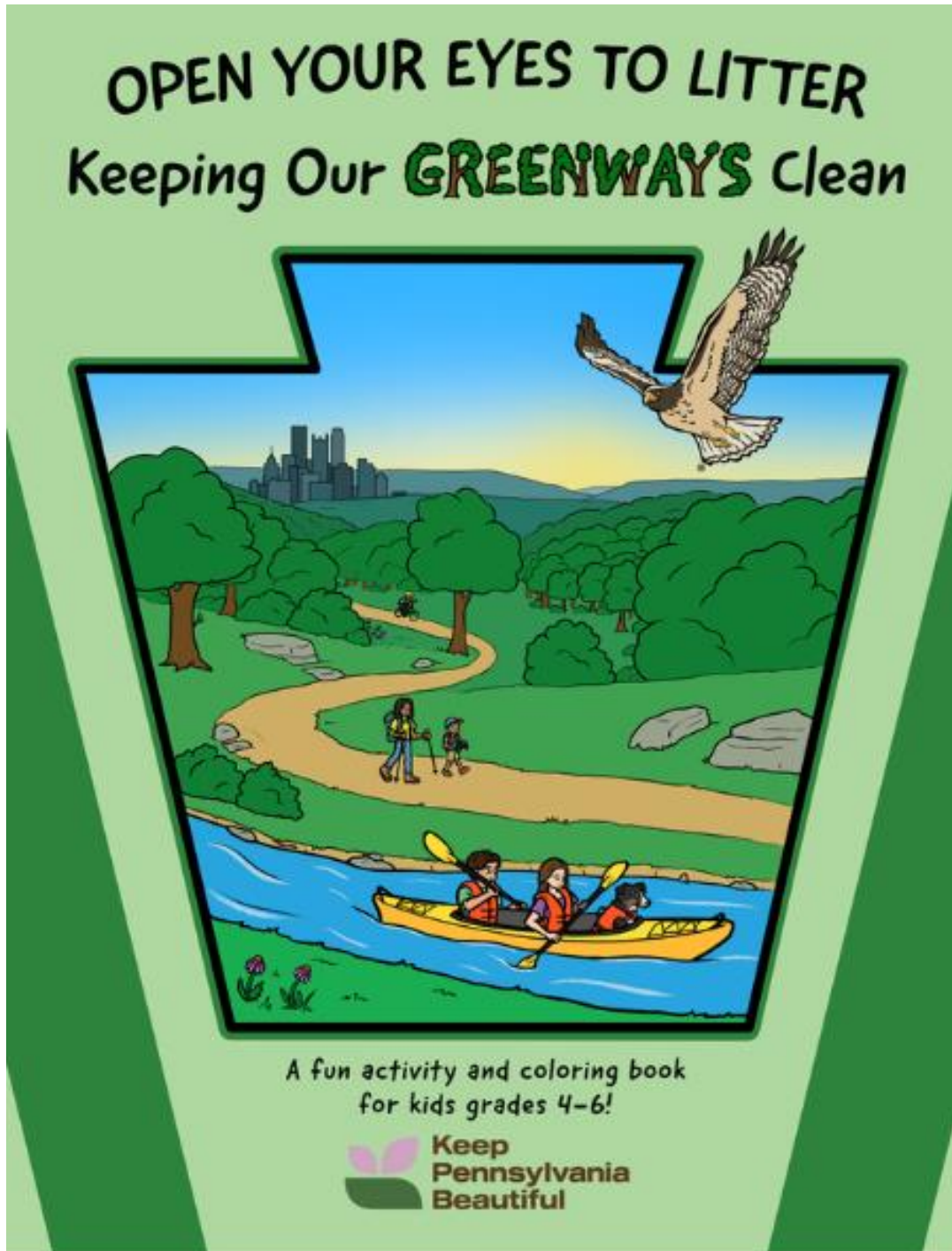


TEACHER'S GUIDE  
OPEN YOUR EYES TO LITTER – VOL. 5  
KEEPING OUR GREENWAYS CLEAN



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## Table of Contents

Objectives.....	4
Standards.....	5-8
Guided Reflection Discussion.....	9
Personal Trash Challenge.....	10
Recycle or Rot Sorting Game.....	11
Leave No Trace.....	12
A Day in the Life of Trash.....	13
you're your County.....	14-17
Follow the Life of an Object.....	18
Make a Model Greenway.....	19
Greenway Adventure Design.....	20
Adopt a Greenway.....	21
Exploring Emotions on a Greenway.....	22-23
Glacial Carving Model.....	24
"Four Revolutions, One River" Timeline Project.....	25-26
Capital Area Greenbelt: Greenway Congress.....	27-29
Mapping the Trail.....	30-31

Math On the Move.....	32
Wildlife Status Research Project.....	33
Scenario: If the Greenway Got Polluted.....	34
Build Your Own Trail Town Business.....	35-36
Design A Trail Town Adventure Poster.....	37-38
Pack your Bag for the Appalachian Trail.....	39-40
Trail Trek Game.....	41
Design Your Own Greenway.....	42
Greenway Personality Quiz.....	43
My Greenway Action Plan.....	44

## Objectives:

After completing this booklet and suggested activities, students will be able to:

- Know the definition of a *greenway*.
- List how greenways are *used* by people and animals.
- Identify where Pennsylvania's greenways are *located*.
- List and understand the *functions* of greenways and how they benefit the environment.
- Identify how people positively and negatively *impact* greenways.
- Choose a way they can individually or as a group *positively impact* a greenway near them.

This fifth volume of OPEN YOUR EYES TO LITTER – KEEPING OUR GREENWAYS CLEAN provides students and teachers with the knowledge of:

- What a greenway is
- Where Pennsylvania's greenways are located
- How greenways help the environment
- How people impact greenways
- Ways students can make a difference for a local greenway.

This guide is designed as a tool to address this topic as simply or as in depth as you choose. The activities are cross-curricular, with an emphasis on Environment and Ecology, and is designed to help get students to think critically about real life issues impacting their lives. The target audience is for 4<sup>th</sup> through 6<sup>th</sup> grades, but can be used flexibly based on ability and prior knowledge.

The projects address PA Department of Education Academic Standards for:

## **STEELS:**

### **Life Science:**

- *3.1.6-8.H Analyze and interpret data to provide evidence for the effects of resource availability on organisms and population of organisms in an ecosystem*
- *3.1.6-8.J Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems*
- *3.1.6-8.L Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations*

### **Physical Science:**

- *3.2.5.B Make and communicate observations and measurements to identify materials based on their properties.*
- *3.2.6-8.C Gather and make sense of information to describe how synthetic materials come from natural resources and impact society*

### **Earth and Space Science:**

- *3.3.4.A Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time*
- *3.3.4.B Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation*
- *3.3.4.C Analyze and interpret data from maps to describe patterns of Earth's features*
- *3.3.4.D Obtain and combine information to describe that energy fuels are derived from natural resources and their uses affect the environment*
- *3.3.5.C Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact*
- *3.3.5.F Generate and design possible solutions to a current environmental issue, threat, or concern*

### **Environmental Literacy & Sustainability**

- *3.4.3-5.A Analyze how living organisms, including humans, affect the environment in which they live, and how their environment affects them*
- *3.4.3-5.B: Make a claim about the environment and social impacts of design solutions and civic actions, including their own actions*
- *3.4.3-5.C: Examine ways you influence your local environment and community by collecting and displaying data*

- **3.4.3-5.D** *Develop a model to demonstrate how local environmental issues are connected to larger local environmental and human systems*
- **3.4.3-5.E** *Construct an argument to support whether action is needed on a selected environmental issue and propose possible solutions*
- **3.4.3-5.F:** *Critique ways that people depend on and change the environment.*
- **3.4.3-5.G** *Investigate how perspectives over the use of resources and the development of technology have changed over time and resulted in conflict over the development of societies and nations*
- **3.4.6-8.C** *Develop a model to describe how watersheds and wetlands functions as systems, including the roles and functions they serve*
- **3.4.6-8.D** *Gather, read, and synthesize information from multiple sources to investigate how Pennsylvania environmental issues affect Pennsylvania’s human and natural systems*
- **3.4.6-8.E** *Collect, analyze, and interpret environmental data to describe a local environment*
- **3.4.6-8.H:** *Design a solution to an environmental issue in which individuals and societies can engage as stewards of the environment*
- **3.4.6-8.I** *Construct an explanation that describes regional environmental conditions and their implications on environmental justice and social equity*

### **Technology & Engineering**

- **3.5.3-5.C** *Follow directions to complete a technological task*
- **3.5.3-5.B** *Examine information to assess the trade-offs to using a product or system*
- **3.5.3-5.F** *Classify resources used to create technologies as either renewable or nonrenewable*

### **PA Core Standards English Language Arts (ELA)**

- **CC.1.4.4.M** *Write narratives to develop real or imagined experiences or events*
- **CC.1.4.5.V** *Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.*
- **C.1.5.4.A** *Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others’ ideas and expressing their own clearly.*
- **C.1.5.5.D** *Report on a topic or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly with adequate volume, appropriate pacing, and clear pronunciation.*
- **CC.1.5.5.F** *Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes*

### **Pennsylvania Academic Standards for Social Studies**

- **5.1.4.B** *Explain rules and laws for the classroom, school, community, and state*

- *5.1.5.A Understand the rule of law in protecting property rights, individual rights, and the common good*
- *5.2.4.B Describe the sources of conflict and disagreement and different ways conflict can be resolved*
- *5.2.5.B Identify behaviors that promote cooperation among individuals*
- *5.2.5.C Explain why individuals become involved in leadership and public service*
- *5.2.6.D Explain why participation in government and civic life is important*
- *5.3.5.G Describe how groups try to influence others*
- *5.3.6.G Identify individual interest groups and how they impact government*
- *6.1.6.B Compare ways that people meet their needs with how they meet their wants. Describe how resources are combined to produce different goods and services.*
- *6.2.4.A Explain how a product moves from production to consumption*
- *6.2.4.E Explain why local businesses open and close*
- *6.2.5.A Describe how goods and services are distributed*
- *6.3.4.A Explain how government responds to social needs by providing public goods and services*
- *6.5.6.F Explain the role of the entrepreneur in Pennsylvania*
- *7.1.4.A Describe how common geographic tools are used to organize and interpret information about people, places, and environment*
- *7.1.6.B Describe and locate places and regions as defined by physical and human features.*
- *7.2.6.A Describe the characteristics of places and regions.*
- *7.2.6.B. Describe the physical processes that shape patterns on Earth's surface.*
- *7.4.6.B Describe and explain the effects of people on the physical systems within regions.*
- *8.3.6.D Explain how conflict and cooperation among groups and organizations have impacted the history and development of the U.S.: ethnicity and race, working conditions, immigration, military conflict, economic stability*

### **Pennsylvania Academic Standards for Mathematics**

- *CC.2.2.4.A.1 Represent and solve problems involving the four operations*
- *CC.2.2.6.B.2 Understand the process of solving a one-variable equation or inequality and apply to real-world and mathematical problems*
- *CC.2.3.4.A.1 Draw line and angles and identify these in two-dimensional figures.*
- *CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.*
- *CC.2.4.5.A.2 Represent and interpret data using appropriate scale*
- 

### **Common Core Standards Mathematics**

- *CCSS.4.MD.B.4 Represent and interpret data*

## **Pennsylvania Academic Standards for Arts & Humanities**

- **9.1.5.B** *Recognize, know, use, and demonstrate a variety of appropriate arts elements and principles to produce, review, and revise original works in the arts*

### **PA Career Ready Skills (SEL)**

- *Self-Awareness & Self-Management Grades 1-5: Identify one's own strengths, needs, and preferences*
- *Self-awareness and Self-Management Grades 6-8: Identify behavioral expressions of feelings within a context*
- *Social Problem-Solving Grades 1-5: Identify consequences of a decision to oneself and others prior to action*
- *Social Problem-Solving Skills Grades 6-8: Make a decision based upon anticipated consequences.*

## Activities

This guide will go page by page, supplying possible activities you can use with your students. Feel free to pick and choose the activities that work best in your classroom.

Suggested activities:

### **Cover: Introduction to Greenways – Guided Reflection and Discussion**

*(SEL) Self-Awareness & Self-Management Grades 1-5: Identify one's own strengths, needs, and preferences*

#### **Activity Description:**

Begin by inviting students to sit comfortably, either in a circle or in small groups. Encourage them to gently close their eyes or lower their gaze. Lead the class through a short mindfulness exercise, guiding them to take slow, deep breaths and notice their senses—for example, what they can hear, what they feel, or how their body relaxes.

Next, ask students to imagine a beautiful, peaceful place. Prompt them to think about what this place looks like, what sounds they hear, and how it makes them feel. After a few quiet moments, invite students to share (either in small groups or with the class) what they pictured.

Facilitate a discussion by asking:

- Did any of your imagined places involve nature?
- Why might green spaces be important for both people and animals?
- Can you recall a time when you spent time in nature that made you feel calm, happy, or inspired?

Conclude by connecting their reflections to the importance of greenways as spaces that support both human well-being and the environment.

## Pages 2-3: Personal Trash Challenge

STEELS: 3.4.3-5.A 3.4.3-5.B 3.4.3-5.C

*(SEL) Social Problem-Solving Grades 1-5: Identify consequences of a decision to oneself and others prior to action*

### Activity Description:

Over the course of one day, ask students to document every time they throw something away. They can take a photo (if technology is available), make tally marks (see *Litter Survey*), or keep a short journal entry. At the end of the day, students reflect:

- How much trash did you make?
- Were any items recyclable or reusable instead?
- What might happen if this trash ended up outside—in a park, bike path, or waterway?

**Discussion:** Connect their personal trash production to what might happen in greenways if people don't properly dispose of it.

Litter Survey			
Date:			
Type	Tally	TOTAL	Recyclable?
Bottles			
Cans			
Cardboard			
Clothes			
Fast Food Wrappers			
Food Waste			
Glass			
Paper			
Snack Wrappers			
Plastic Bags			
Tissues			
Other			

## Page 4: Recycle or Rot? Sorting Game

STEELS: 3.4.3-5.A 3.4.3-5.B 3.4.3-5.C

*(SEL) Social Problem-Solving Grades 1-5: Identify consequences of a decision to oneself and others prior to action*

### Activity Description:

Bring in a mix of clean items (or pictures of items if materials aren't available): plastic bottle, paper, apple core, yogurt cup with food, soda can, chip bag, banana peel, greasy pizza box, etc.

- Have students work in small groups to **sort items into three bins**: *Recycle, Compost, Trash*.
- After sorting, review as a class: Which items were tricky? Why do some things need to be rinsed? Why can't all plastics be recycled?
- Connect to the importance of composting and reducing waste overall.

If space allows, this activity can be turned into a relay race game where students are split into teams and race to put items in the correct bins.

## Page 5: Leave No Trace

STEELS: 3.4.3-5.F 3.4.6-8.H

**Background Information:** The **Leave No Trace (LNT) principles** are guidelines designed to help people enjoy nature responsibly while minimizing their impact on the environment. They apply everywhere, from a neighborhood park or greenway to a national forest. While originally developed for wilderness areas, these principles are valuable for any outdoor setting, including the spaces your students use every day.

Here are the **7 Principles of Leave No Trace**:

1. **Plan Ahead and Prepare**
  - Think before you go. Bring the right supplies, know the rules, and make sure you're ready for the weather and terrain.
2. **Travel and Camp on Durable Surfaces**
  - Stick to established trails and campsites. Walking off-trail can harm plants and cause erosion.
3. **Dispose of Waste Properly**
  - Pack it in, pack it out! Carry your trash with you, and learn about recycling and composting. Even food scraps can harm wildlife.
4. **Leave What You Find**
  - Don't pick flowers, move rocks, or take natural souvenirs. Leaving things where they are helps preserve ecosystems.
5. **Minimize Campfire Impact**
  - Use a camp stove instead of a fire when possible. If fires are allowed, use established fire rings and keep fires small.
6. **Respect Wildlife**
  - Watch animals from a distance. Don't feed them; human food can make them sick.
7. **Be Considerate of Other Visitors**
  - Keep noise down, share the trail, and respect that others are there to enjoy nature too.

### Activity Description:

**Setup:** Divide the class into small groups. Give each group a "nature scene" (this can be a printed photo of a trail, park, or greenway, OR a small area of the classroom set up with props like toy animals, fake plants, images on a smartboard etc.

**Impact:** Secretly assign one group to "visit" the scene and leave behind trash, trample a plant, or feed the animals (using props or cards).

**Challenge:** The next group visits and must identify the "problems" left behind. Discuss how these actions harm the environment. What would have been the Leave No Trace action instead?

## Page 6: A Day in the Life of Trash

*STEELS: 3.4.3-5.A*

*ELA: CC.1.4.4.M C.1.5.4.A*

**Activity Description:** Students will write a creative narrative from the perspective of a piece of litter, showing how weather and natural forces move it through the environment.

### **Introduce the Prompt:**

Ask students to imagine they are a piece of litter left behind in a park, on a trail, or near a greenway. What happens next?

### **Brainstorm Together:**

Create a word bank on the board of:

- Weather forces (wind, rain, snow, flood, storm, sun)
- Movement words (blew, floated, tumbled, rolled, sank)
- Places trash might travel (stream, storm drain, street, lake, tree, field, watershed)

### **Writing Task:**

Students write a short story from the perspective of the trash. Encourage them to describe:

- How they were left behind (“I was dropped under a shady tree...”)
- How the weather affects them (“A gust of wind lifted me high...”)
- Where they travel and who/what they encounter (animals, people, landscapes)
- Their final destination (a waterway, landfill, recycling bin, or volunteer clean-up).

### **Sharing & Reflection:**

Students can read their stories in small groups. Close with a discussion:

- How does litter affect the environment when it isn’t disposed of properly?
- How can we prevent these journeys from happening in real life?

## Pages 7-9: Map Your Community

*STEELS: 3.3.4.C 3.5.3-5.C 3.4.3-5.D 3.4.6-8.E*

*Mathematics: CC.2.3.4.A.1 CCSS.4.MD.B.4*

*Social Studies: 7.1.4.A 7.1.6.B 7.2.6.A 7.4.6.B*

### Prior Knowledge: Map from Memory

Divide students into small groups and provide each group with a large sheet of paper or poster board. Ask students to draw a rectangle in the center to represent their school. Challenge them to map as much of the surrounding area as they can from memory, including features such as nearby parks, businesses, rivers, and other landmarks. Once completed, have groups compare their maps and discuss similarities and differences. If technology allows, display an online map (e.g., Google Maps, Google Earth, ArcGIS) to compare their hand-drawn maps with real-world representations. Highlight different map types such as terrain, roadmap, and satellite and facilitate a discussion on the purposes and advantages of each type in various situations.

**Interactive Map:** Students will create an interactive digital map of the area surrounding their school, identifying natural and human-made features while using technology, spatial reasoning, and environmental awareness. This project can be completed as a class, in groups or individually. To collaborate on the same map with different screens, students can hit **share** to enter email addresses so they can edit the same map and see changes in real time.

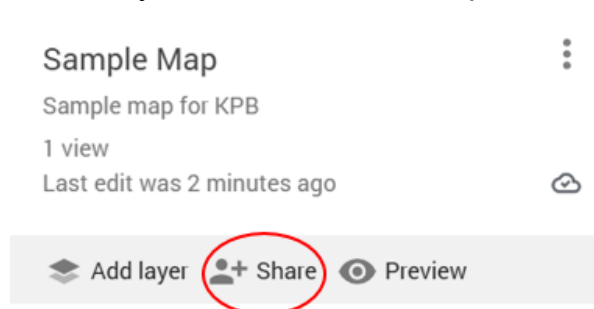
### Materials:

- Computers or tablets with internet access
- Google accounts for students (school accounts recommended)
- Access to **Google My Maps**

### Step-by-step Guide:

1. **Access Google My Maps:**
  - Go to <https://www.google.com/mymaps>
  - Students will need a Google account (school accounts are ideal).
2. **Create a New Map:**
  - Click “**Create a new map.**”
  - Name your map by clicking on “Untitled Map” (located in the upper left). Add a map title and optional description and click **Save**.

- To collaborate on the same map with different screens, students can hit **share** (under the map title on the left-hand toolbar) to enter email addresses so they can edit the same map and see in real time.

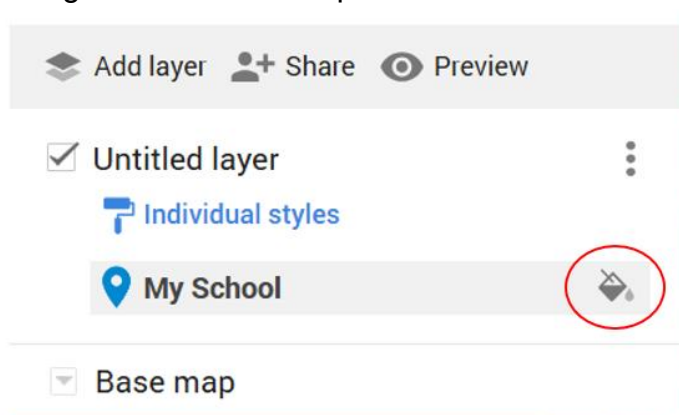


### 3. Locate Your School:

- In the **search bar**, located at the top, type your school's name or address and press **Enter**. (A pin will appear on the map marking the school location).
- Click "**Add to map**" to place a marker
- An info box will appear. At the bottom of the box, click the **edit** icon (a pen icon) to change the name of the marker such as "my school". Click **Save**.



- Locate the pin name in the toolbar on the left (under "untitled layer"). Hovering over this name will show a hidden icon which can be used to edit the icon image and color of the pin.



### 4. Explore the Surrounding Area:

- Zoom in to your school. Then zoom out slightly to see the neighborhood around the school.
- Encourage students to identify:
  - Nearby parks or green spaces
  - Waterways (streams, ponds, lakes)

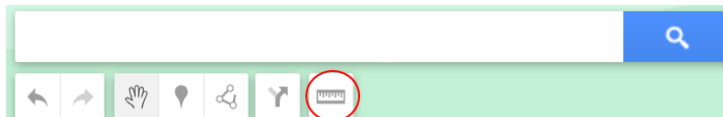
- Trails
- Roads and intersections
- Local businesses
- Community Landmarks

## 5. Add Markers:

- Click the **marker** tool (balloon icon under the search bar).

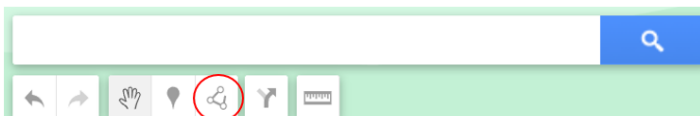


- Click on a location to place a marker.
- Give the marker a **name** and optional description such as
  - “Susquehanna River” – local wildlife habitat
- Repeat for each feature in the surrounding area.
- Click on the **ruler** icon (under the search bar) and two points on the map to measure distances between the two points. Click the ruler icon again to exit the measurement tool.



## 6. Add Line and Shapes

- Click on the **line** tool to reveal the options of adding a line, driving route etc. Click **add line or shape** (click on two points and hit **enter**) to trace walkable areas such as:
  - Sidewalks or walking paths
  - Bike lanes or trails



- ✓ Add line or shape
- 🚗 Add driving route
- 🚲 Add biking route
- 🚶 Add walking route

- Create a **shape** by clicking the **line** tool again and select **add line or shape**. Clicking connecting points will create a **shape**. Use this to highlight natural areas such as:

- Forested areas
  - Open fields
  - Lakes and ponds
  - On the left-hand toolbar locate the shape name “Polygon”. Similar to renaming their points, students can rename their shape to “open field” etc. and change the color of the highlight to customize the map and make it clearer.
7. **Add pictures or videos**
- Click the **marker** tool to add another point (balloon icon under search bar).
  - **Add image or video** by clicking the camera button (on the lower left of the info bar) to upload a photo or link to a YouTube video
8. **Present their maps**
- Allow students to share their maps with the class. Compare and contrast which areas they chose to highlight, drawing special attention to greenways.

## Page 10 Follow the Life of an Object

*STEELS: 3.2.5.B 3.2.6-8.C 3.3.4.D 3.4.3-5.B 3.4.3-5.F 3.5.3-5.B 3.5.3-5.F*

*ELA: C.1.5.5.D*

*Social Studies: 6.1.6.B 6.4.2.A 6.2.5.A*

### Introduction:

Point out the **fun fact** on page 10: “*Using a refillable water bottle can save approximately 156 plastic bottles per person per year*”. Have students calculate how many bottles would be saved if every student in the class used a refillable bottle, and then extend the calculation to the entire school. Discuss the environmental impact of reducing single-use plastics.

### Activity Description:

Students will work individually or in small groups to trace the life of an everyday object and explore its environmental footprint.

1. **Select an object:** Choose an everyday object or product (such as a toothbrush, running shoe, cell phone etc.).
2. **Identify Raw Materials:** List all materials used to make the object. Classify each as **renewable** or **non-renewable**.
3. **Trace the Origin:** Research where each raw material comes from and the energy and cost required to transport it to the manufacturing site.
4. **Decomposition Research:** Determine how long each material would take to decompose in a landfill.
5. **Consider Alternatives:** Investigate ways to **reuse, recycle, or compost** the object rather than discarding it. Get creative!
6. **Reflect on Choices:** Discuss whether this knowledge would influence future purchasing decisions.
7. **Present Findings:** Create a **poster, digital presentation, or infographic** illustrating the object’s journey - from raw material to production, personal use, and end-of-life options.

### Discussion Prompts:

- Which stages of the object’s life cycle have the largest environmental impact?
- How can small changes, like using a refillable water bottle, make a difference?
- How do human choices connect to broader environmental issues, such as waste and sustainability?

## Page 11-13: Make a Model Greenway

*STEELS: 3.3.5.C 3.4.3-5.D 3.4.6-8.C*

*Mathematics: CC.2.4.4.A.1*

### Activity Description:

Students will create a three-dimensional model of **Pennsylvania or their county** to explore greenways, rivers, mountains, towns, and wildlife. Using a variety of craft materials, students will build an interactive model that demonstrates how greenways connect natural areas and provide critical environmental functions. This hands-on activity reinforces understanding of spatial relationships, ecosystems, and human-environment interactions.

#### 1. Base Creation:

- Use a tray, large board, or stiff cardboard as your base.
- Shape the outline of Pennsylvania or your county using **paper Mache, clay, crumpled foil, or paper**.

#### 2. Add Physical Features:

- Form mountains, hills, and valleys.
- Create rivers or streams using **blue paint, paper, or foil**.
- Use **sponges or textured materials** to represent wetlands.

#### 3. Build the Greenways:

- Use **twigs, green moss, construction paper, or paint** to indicate greenways.
- Label each greenway if desired.

#### 4. Add Living and Human Elements:

- Include **animals** that inhabit the greenway (plastic figures, drawings, or cutouts).
- Include **people using the greenway for recreation** (hiking, biking, kayaking, etc.).
- Add **cities, towns, and trail towns** to illustrate community connections.

#### 5. Explain Environmental Functions:

- Use your model to identify each greenway and explain its ecological role:
  - **Habitat:** Provides a home for wildlife
  - **Filter:** Cleans water or air
  - **Buffer:** Reduces pollution and protects sensitive areas
  - **Source:** Supplies resources like food, water, or materials
  - **Travel:** Allows movement of wildlife and people
  - **Sink:** Absorbs excess water, nutrients, or pollutants

#### 6. Presentation:

- Share your model with classmates, pointing out greenways, rivers, towns, and how each function contributes to environmental health.
- Discuss ways humans can positively or negatively impact greenways

## Page 14: Greenway Adventure Design

*STEELS: 3.4.3-5.A*

*ELA: CC.1.5.5.F*

**Objective:** Students design a greenway visit highlighting activities, learning, and exploration.

### **Steps:**

1. **Brainstorm:** In small groups, students list **activities they would like to do on a greenway** (hiking, birdwatching, kayaking, historical tours, picnics, biking, cross-country skiing, horseback riding, yoga, running etc.).
2. **Map Your Adventure:** Using a blank greenway map (or digital map tool), students plot where they would do each activity.
3. **Explain Choices:** For each activity, students explain why that location is suitable (e.g., near a river for kayaking, forested area for wildlife observation).
4. **Presentation:** Students share their “Greenway Adventure Plan” with the class, highlighting **fun, learning, and conservation awareness**.

## Page 15: Adopt a Greenway Project

*STEELS: 3.4.3-5.B 3.4.3-5.E 3.4.6-8.H*

*Social Studies: 7.4.6.B*

*ELA: CC.1.4.5.V*

*SEL: Social Problem-Solving Skills Grades 6-8: Make a decision based upon anticipated consequences.*

**Objective:** Students develop an actionable plan for contributing to a greenway near them.

### **Steps:**

1. Students select a nearby greenway or one featured in the book.
2. Research current volunteer programs or local initiatives.
3. Design a **class or group plan** for volunteering or helping to reduce litter.
4. Include specific **tasks, timing, and expected outcomes**.
5. Optionally, students can **create a digital proposal, poster, or brochure** to share with peers or local community organizations.

## Page 16: Exploring Emotions on a Greenway

*STEELS: 3.4.3-5.A*

*SEL: Self-awareness and Self-Management Grades 6-8: Identify behavioral expressions of feelings within a context*

*Mathematics: CCSS.4.MD.B.4 CC.2.4.5.A.2*

Students will explore how greenways and natural spaces affect emotions, thoughts, and overall well-being. Through a **guided nature walk** and reflective journaling, students will connect personal experiences to the ecological and recreational benefits of greenways.

### Guided Nature Walk and Reflection:

#### 1. Pre-Walk Reflection

Before leaving the classroom, ask students to complete a short **journal entry** responding to prompts such as:

- How do you feel right now? Write some specific emotions you feel.
- On a scale of 1-10, rate your mood.
- How easy is it for you to focus right now?

#### 2. Guided Nature Walk

Lead students on a **walk around the school grounds or nearby green space**.

- During the walk, prompt students to:
  - Notice sights, sounds, and smells in the environment.
  - Observe **plants, animals, water features, or pathways**.
  - Reflect silently or jot down observations and feelings in their journals.
- Optionally, pause at specific points for a **1–2 minute mindfulness reflection**, encouraging deep breathing and sensory awareness.

#### 3. Post-Walk Reflection

Back in the classroom, have students respond to a **second journal prompt**:

- How do you feel now compared to before the walk?
- On a scale of 1-10 rate your mood after being in nature.
- Did anything in nature make you feel calm, happy, or curious?
- How might spending time in greenways benefit people in urban or suburban areas?

#### 4. Displaying Mood Data

- Collect the **pre-walk and post-walk mood ratings**.
- Create a **class chart or graph** (bar graph, line graph, or table) to visualize changes in mood.
- Discuss patterns:
  - Did most students' moods improve?
  - Are there differences between students? Why might that be?
- Connect the discussion back to the **benefits of access to natural spaces and greenways**.

#### 5. Group Discussion

- Invite students to **share reflections** in small groups or as a class.
- Highlight connections between **personal well-being and access to natural spaces**.
- Discuss how greenways improve quality of life for communities and wildlife.
- Use the data of how they felt on a scale of 1-10 before and after the walk to create a chart measuring

## Page 17: Glacial Carving Model

*STEELS: 3.3.4.A 3.3.4.B*

*Social Studies: 7.2.6.B*

### Introduction:

- Discuss glaciers as “slow-moving rivers of ice” that shape valleys, carve trails, and deposit rocks and soil.
- Show photos of the **Grand Canyon of Pennsylvania** and surrounding terrain. Highlight the “U-shaped valleys” carved by glaciers.

**Materials:** tray or baking pan, sand, small rocks, modeling clay, large ice cube (optionally colored with food dye) and water.

### Instructions:

1. Fill a tray with sand and small rocks to represent the land.
2. Place the ice cube at one end of the tray to represent a glacier.
3. Slowly push or let the ice move over the sand and rocks. Observe how it **pushes, scrapes, and shapes the land**.
4. Discuss how the “glacier” moves and deposits rocks (glacial till) and soil.

### Observation and Reflection:

Students draw or write about:

- The landforms created by the glacier (valleys, ridges, sediment deposits).
- How these formations affect **greenways, trails, rivers, and wildlife habitats**.
- Connections between glacial history and today’s Pine Creek Trail geography.

## Pages 18-19: “Four Revolutions, One River” Timeline Project

*STEELS: 3.4.3-5.G 3.4.6-8.I*

*Social Studies: 7.4.6.B 8.3.6.D*

### Introduction:

- Review the four revolutions listed in the book:
  - **American Revolution** – Revolutionary War battles, role of waterways in troop movement.
  - **Industrial Revolution** – Use of rivers for mills, transportation, and factories.
  - **Abolitionist Movement** – Underground Railroad and activism along the river corridor.
  - **Environmental Revolution** – River clean-up efforts, conservation, and modern environmental protection.

### Group Research:

- Divide the class into four small groups, one for each revolution.
- Each group investigates:
  - Key people or events connected to the Schuylkill River during that revolution.
  - How the river supported or was impacted by this movement.
  - What lasting changes came from this revolution?
- Have students write down key dates (or approximate dates) on sticky notes.
- Some information may be harder to find, help guide students where needed (*see sample timeline*)

### Step 3 – Create a Class Timeline

- On a large piece of paper or whiteboard build a timeline of the four revolutions by having each group add their sticky notes to the timeline.

### Step 4 – Reflection & Connection

Discuss as a class:

- How did the Schuylkill River connect these different eras of change?
- What does this tell us about the importance of place in history and civic life?
- How can we connect past revolutions to modern issues (like climate change, human rights, or pollution)?

## ***Sample Timeline for Abolitionist Movement:***

### **Early 1800s – Quaker Support Begins**

- Quakers in **Montgomery County** and the **Schuylkill Friends Meeting (Phoenixville)** begin offering safe havens and support for freedom seekers.
- The Schuylkill River becomes a key crossing point to evade bounty hunters.

### **1820s–1830s – Underground Railroad Routes Develop**

- Safe houses and “stations” emerge along the Schuylkill River.
- **Pottsville**, where the river cuts through the mountains, becomes an important stopping point.
- Freedom seekers sometimes ford or paddle across the river to avoid capture.

### **1830s–1840s – Montgomery County Becomes a Hub**

- Abolitionist **George Corson builds Abolition Hall** in Plymouth Meeting, which becomes a gathering place for the anti-slavery movement.
- Montgomery County’s strong Quaker community expands the Underground Railroad network.

### **Mid-1800s – Belmont Mansion in Philadelphia**

- Freedom seekers paddle across the Schuylkill to **Peters Island**, then continue on foot to **Belmont Mansion** (owned by Judge Richard Peters, an early abolitionist).
- The mansion becomes a vital station in Fairmount Park for those traveling north.

### **1840s–1850s – Frederick Douglass and the Schuylkill**

- Formerly enslaved and now a leading abolitionist, **Frederick Douglass works as a laborer on the Schuylkill River docks** early in his free life.
- Later, he speaks in Philadelphia and Montgomery County, inspiring abolitionist action along the river corridor.

### **1850s–1860s – Increased Activity Before the Civil War**

- With the passage of the **Fugitive Slave Act (1850)**, bounty hunters increase patrols, making river crossings even more dangerous but more critical.
- Quaker meetinghouses and safe havens along the Schuylkill remain active in guiding freedom seekers north toward Allentown, Reading, and beyond.

## Page 20: Capital Area Greenbelt: Greenway Congress

**STEELS:** 3.4.3-5.A 3.4.3-5.B 3.4.3-5.D 3.4.3-5.E

**Social Studies:** 5.1.4.B 5.1.5.A 5.2.4.B 5.2.5.B 5.2.5.C 5.2.6.D 5.3.5.G 5.3.6.G  
6.3.4.A

**ELA:** C.1.5.4.A

Students will step into the shoes of different stakeholders who use or care about greenways. By role-playing and debating in a mock “Greenway Congress,” they will learn how laws and policies are made, why compromise is necessary, and how laws protect both people and the environment.

### Greenway Congress Simulation

#### Introduction

Explain: “The Capital Area Greenbelt is near Harrisburg, the state capital. Laws are made in the capital that affect everyone—including people, animals, and the environment. Today, you’ll become lawmakers who must create a new rule to protect greenways.”

#### Assign Roles:

Divide the class into small groups. Assign each group a role by giving them a card that represents stakeholder (see *stakeholder cards*):

- **Kids** – want fun, safe spaces to play and learn in greenways.
- **Park Rangers** – care about keeping the greenway clean and safe.
- **Wildlife** – need habitats, food, and protection from pollution.
- **Local Businesses** – want greenways to attract visitors and support the economy.
- **Community Members** – want clean air, water, and places for exercise.

#### Group Brainstorming:

Each group discusses:

1. What does our group need from the greenway?
2. What problems do we want to solve (trash, pollution, too much building, etc.)?
3. What kind of law would help us?

#### Propose a Law:

Each group writes a simple draft law including:

- **Title** (e.g., “The Clean and Green Act”).
- **Purpose** (why it’s needed).

- **Rules** (what people must do or stop doing).

### **Debate & Compromise:**

- Groups present their ideas to the whole class.
- Students notice where laws might conflict (e.g., businesses wanting more development vs. animals needing habitat).
- The class discusses how to compromise so the law is fair to everyone.

#### ***Example: Greenways Protection and Sharing Act:***

*Every greenway must have:*

1. ***Trash & Recycling Bins*** every half-mile to reduce litter
2. ***Wildlife Zones*** where people stay on the trail and no building is allowed
3. ***Family-Friendly Areas*** with safe bike paths, playgrounds, and picnic tables
4. ***Business Partnerships*** – local shops may set up snack stands or rental booths at trailheads, but only if they help clean up after events
5. ***Community Service Days*** where families, kids, and businesses work with rangers to keep the greenway clean and safe

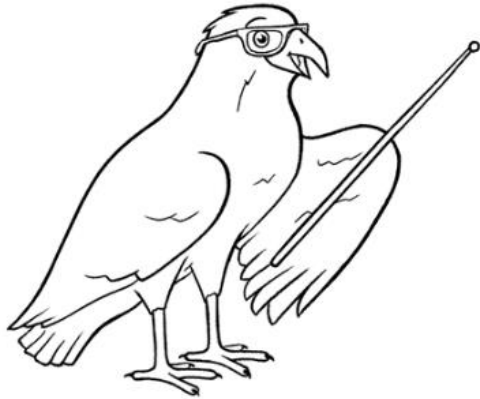
### **Vote & Pass the Law:**

- The class votes on a final law (or a combined version of multiple ideas).
- Teacher acts as the “Governor” and signs it into effect.
- Display the class’s “Greenway Law” on a bulletin board or class website.

### **Reflection Questions:**

- Was it easy or hard to balance everyone’s needs?
- How do lawmakers in Harrisburg face similar challenges?
- Why are laws important for protecting greenways and communities?

# Stakeholder Cards:



## Park Rangers



- **Needs:** Clean, safe greenways that are easy to maintain.
- **Concerns:** Too much litter, vandalism, or people harming wildlife.
- **Goal:** Protect the land and make sure everyone follows the rules.
- **Talking Points:**
  - “We need more trash cans and recycling bins.”
  - “We need rules to protect plants and animals.”
  - “We want everyone to follow signs and stay on the trails.”

## Wildlife



- **Needs:** Food, water, and safe places to live.
- **Concerns:** Pollution, people scaring animals, or too much building in your home.
- **Goal:** Keep greenways wild so animals can survive.
- **Talking Points:**
  - “We need trees, rivers, and wetlands to stay healthy.”
  - “Please stop pollution that hurts our homes.”
  - “Don’t build too many roads—give us safe ways to travel.”

## Kids



- **Needs:** Safe and fun places to play, explore, and learn.
- **Concerns:** Trash in the park, broken trails, or too much traffic nearby.
- **Goal:** Make sure greenways are safe and enjoyable for kids and families.
- **Talking Points:**
  - “We want trails where kids can ride bikes safely.”
  - “Please keep the greenway clean so it’s fun for us.”
  - “We want places for games, picnics, and field trips.”

## Community Members



- **Needs:** Clean air, fresh water, and safe places to exercise and relax.
- **Concerns:** Pollution, unsafe trails, and too much traffic.
- **Goal:** Protect the greenway so everyone in the community can enjoy it.
- **Talking Points:**
  - “We need safe walking and biking paths for families.”
  - “Please make sure the river water stays clean.”
  - “We want more trees and flowers to make our town beautiful.”

## Local Businesses



- **Needs:** People visiting the greenway and supporting shops, restaurants, and rentals.
- **Concerns:** Fewer visitors if the greenway isn’t attractive or safe.
- **Goal:** Keep the greenway clean and welcoming so more people come.
- **Talking Points:**
  - “Greenways bring tourists who spend money in town.”
  - “We want rules that keep the trails nice for visitors.”
  - “Events like races or festivals help our businesses.”

## Page 21: Mapping the Trail

*Social Studies: 7.1.4.A 7.1.6.B 7.2.6.B*

### Activity Description:

- Provide each student with a map of the North Country National Scenic Trail.
- As you read aloud the name of each state along the trail, have students carefully trace the trail's route with their pencils.
- Give students a few minutes to study the completed map (*see North Country Scenic Trail maps*).
- Hand out a blank U.S. map. Ask students to label the correct states the trail passes through in order. See how many they can get right.
- Go further – research the climate in each state that the trail passes through. How would your outfit have to change to stay safe and healthy on the trails?

# North Country Scenic Trail



## Page 22: Math on the Move

STEELS: 3.4.3-5.A Mathematics: CC.2.2.4.A.1 CC.2.2.6.B.2

Students will apply real-world math to explore activities at the Moraine Regatta, such as kayaking, yoga, sailing, and volunteering. Through word problems (*page 22 in the book*), they will calculate totals, compare speeds, and measure environmental impact. Students also reflect on why clean waterways are important for recreation.

### How do people enjoy the NORTH COUNTRY TRAIL at Moraine State Park?

By hiking AND playing on the water at the annual Moraine Regatta! This free event celebrates Lake Arthur with kayaking, sailing, yoga, and more. Keeping the park litter-free makes all of these activities safer and more fun for everyone.

#### 1. Kayak Rentals:

If the Regatta were to offer **20 double** kayaks (each fits 2 people) and **25 single** kayaks (each fits 1 person), how many people could kayak **in total**?



#### 2. Yoga by the Lake:

If a lakeside yoga class has **45 people** and the teacher hands out yoga mats in **stacks of 9**, how many **stacks** of mats does she need?

#### 3. Sailing Races:

Two sailboats are racing across Lake Arthur. The blue sailboat sails **5 miles** every **30 minutes**. The red sailboat sails **4 miles** every **20 minutes**. Which boat is moving faster, and how many miles will the **faster boat** travel in **1 hour**?



#### 4. Trash Impact:

Suppose volunteers collected **160 plastic bottles** and **128 soda cans** from around the lake. Each **bottle** weighs **1 ounce** and each **can** weighs  $\frac{1}{2}$  **ounce**. How many **pounds** of trash did they collect in total?  
(Hint: 16 ounces = 1 pound)



#### 5. Why it Matters:

How would sailing, kayaking, and yoga be different if Lake Arthur was full of floating trash? Write one way water sports are better without litter.

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#### ANSWERS:

1. 65 people 2. 5 stacks 3. red 12 mph 4. 14 lbs

## Page 23: *Wildlife Status Research Project*

STEELS: 3.1.6-8.I 3.1.6-8.L 3.4.6-8.D 3.4.3-5.A 3.4.6-8.E 3.3.5.F

ELA: CC.1.4.5.V

In this activity, students will research an animal in Pennsylvania that is classified as **Extinct, Extirpated, Threatened, Recovered, or Endangered**. Students will create a short report, poster, or presentation about their chosen species, highlighting its characteristics, habitat, and conservation status.

They should also include:

- Why the species has this conservation status.
- What people have done (or could do) to help.
- What this teaches us about protecting ecosystems in Pennsylvania.

This activity builds **research skills, critical thinking, and communication**, while connecting students to real-world environmental issues.

### Background:

- **Extinct:** A species that no longer exists anywhere on Earth.  
*Example: Passenger pigeon once lived in Pennsylvania but is now extinct.*
- **Extirpated:** A species that is gone from Pennsylvania but still exists elsewhere in the world.  
*Example: Cougar (Eastern mountain lion) no longer lives in PA but can be found in other regions.*
- **Endangered:** A species at risk of extinction within Pennsylvania.  
*Example: Indiana bat.*
- **Threatened:** A species that may become endangered in the near future if conditions don't improve.  
*Example: Allegheny Woodrat*
- **Recovered:** A species that was once endangered or threatened but has bounced back due to conservation efforts.  
*Example: Bald eagle.*

### Suggested Student Research Questions

1. What does the animal look like (size, color, features)?
2. Where does/did it live in Pennsylvania?
3. What caused it to become endangered, threatened, extirpated, or extinct?
4. If recovered, what helped it come back?
5. What can people do to protect this species (or prevent others from disappearing)?

## Page 24: Scenario: If the Greenway got Polluted

STEELS: 3.1.6-8.J 3.1.6-8.L 3.4.3-5.A 3.4.3-5.B

- Read a short scenario: *“Imagine trash fills the stream, or too many trees are cut down.”*
- Ask: *Which of these animals (listed on page 24) would be affected first? Which might still survive? Why?*
- Students group animals into “most at risk” and “less at risk.”
- Wrap up: emphasize how clean greenways protect whole food webs.

## Page 25: Whose Land Are You On?

1. **Introduce a Local Trail’s History**
  - Explain that many trails across the U.S. began as Native pathways connecting villages, hunting grounds, and rivers.
2. **Local Research Task**
  - Have students research which Indigenous peoples once lived in their local region.
  - They can use resources such as local historical societies, tribal websites, or the **Native Land Digital map** (*native-land.ca*).
3. **Reflection Questions**
  - Which Indigenous nations lived where your school/home is now?
  - How might they have used the land (hunting, farming, fishing, travel)?
  - What still exists today (place names, landmarks, community groups) that connects back to these peoples?
4. **Land Acknowledgment**
  - Students can create a **land acknowledgment statement** for their classroom:  
*“We honor that our school stands on the traditional lands of the \_\_\_\_\_ people, who cared for this land long before us.”*

## Pages 25-27: Build Your Own Trail Town Business

*STEELS: 3.4.3-5.A 3.4.6-8.H 3.5.3-5.B*

*Social Studies: 6.2.4.E 6.5.6.F*

Imagine you own a business in a **Trail Town**. Trail Towns are communities along trails, such as the Great Allegheny Passage that welcome visitors, hikers, and bikers. Businesses here often depend on trail tourism for success (see *Trail Town Business Plan*).

### 1. **Dream It Up**

- What kind of business would you open? A cozy café for hungry hikers, a bike repair shop, a kayak rental, an outdoor gear store, or something totally unique?
- Think about what travelers and locals would need most.

### 2. **Design Your Business**

- Draw a picture or create a logo for your business.
- Give it a catchy name!

### 3. **Plan for Sustainability**

- How will your business help protect the trail and environment?  
(Examples: using recycled materials, offering discounts to people who bring reusable bottles, or teaching visitors about Leave No Trace.)

### 4. **Community Impact**

- How will your business support the local community?  
(Examples: hiring local workers, selling locally made products, giving a portion of profits to trail upkeep.)

### 5. **Pitch Your Idea**

- Share your idea with the group as if you're presenting it to town leaders.

# 🌲 Trail Town Business Plan 🌲

## 1. My Business Name:

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## 2. What We Do *What does your business sell or provide?*

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## 3. Who We Help

*Who will come to your business? (hikers, bikers, families, locals, pets, etc.)*

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## 4. Green Choices

☞ How will your business protect the trail and environment?

Recycle ♻️

Use renewable energy ☀️

Encourage reusable bottles/cups

Other: \_\_\_\_\_

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## 5. Community Impact:

☞ How will your business help the people who live here?

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## 6. My Logo or Drawing:

☞ Draw a picture of your business or create a logo here:

## Page 28: Design a Trail Adventure Poster

*ELA: CC.1.5.5.F*

*Arts & Humanities: 9.1.5.B*

### Activity:

- Imagine you are making a travel poster to encourage people to visit the Erie to Pittsburgh Greenway (see *Travel Adventure Poster brainstorming sheet*)
- Include:
  - The name of the trail system
  - At least one unique feature (oil industry history, dark tunnels, river views, etc.)
  - A slogan or catchphrase (like “Ride Through History!” or “From Lake Erie to the Steel City!”)
  - A drawing of what people might see or do on the trail.

## Trail Adventure Poster

Name: \_\_\_\_\_

Imagine you are creating a travel poster to encourage people to visit the Erie to Pittsburgh Greenway. Your poster should highlight the trail system's unique features, history, and natural beauty!

### 1. Trail Name:

What trail or trail system are you designing your poster about?

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### 2. Slogan

Create a catchy slogan or phrase to attract visitors (e.g., "Ride Through History!").

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### 3. Key Features:

List at least two cool things people might see or do on this trail (historic oil sites, tunnels, biking, river views, etc.).

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### 4. Why Visit?

 Write 2–3 sentences explaining why people should visit this trail.

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### 5. Poster Design:

 Draw a draft of your poster here! Include your slogan, trail name, and a picture of a special feature.

## **Page 29: Pack Your Bags for the Appalachian Trail**

*SEL: Social Problem-Solving Skills Grades 1-5 Identify consequences of a decision to oneself and others prior to action*

### **Activity:**

Students get a list of possible items to bring on a thru-hike (tent, water bottle, candy, stove, extra shoes, frisbee, sleeping bag, heavy book, phone charger, etc.) (see *Pack Your Backpack for the Appalachian Trail sheet*).

- They must **choose 5–7 items** they think are most important for survival.
- Explain why they chose them.
- Optional: Give a “weight limit” so they must choose wisely.
- Optional: Bring in the actual items so students can feel the weight of each item and understand the consequences of making wise choices when packing

### **Earth & Space Sciences (ESS)**

- **3.4.6-8.A** – *Obtain and evaluate information about natural resources and human impact on Earth systems (connection: choosing sustainable hiking supplies, water use).*

### **Life Sciences (LS)**

- **3.2.6-8.A** – *Construct explanations about how organisms survive by meeting needs through adaptations (connection: humans need specific gear to survive outdoors).*

### **Engineering, Technology & Application of Science (ETS)**

- **3.5.6-8.A** – *Define problems by specifying criteria and constraints for solutions (connection: pack only what fits within weight/space limits).*
- **3.5.6-8.B** – *Generate and compare multiple solutions to a problem based on criteria (connection: debating which supplies to bring).*


### **Environmental Literacy & Sustainability (ELS)**

- **4.1.6-8.A** – *Explain how human choices affect environmental health (connection: Leave No Trace, eco-friendly hiking).*
- **4.3.6-8.A** – *Evaluate how individuals and groups can act to conserve and protect resources (connection: sustainable backpacking practices).*

## Pack Your Backpack – Appalachian Trail Challenge

Name: \_\_\_\_\_

The Appalachian Trail is 2,174 miles long! Hikers need to be smart about what they pack. Imagine you are preparing for this hike. You can't bring everything—your backpack would be too heavy!

 Choose 5–7 items from the list below that you think are MOST important for survival. Then explain why you picked them.

### Item List:

- |   |  |
|---|--|
| <input type="checkbox"/> Tent                             | <input type="checkbox"/> First aid kit   |
| <input type="checkbox"/> Sleeping bag                     | <input type="checkbox"/> Phone & charger |
| <input type="checkbox"/> Water bottle                     | <input type="checkbox"/> Heavy book      |
| <input type="checkbox"/> Stove & fuel                     | <input type="checkbox"/> Frisbee         |
| <input type="checkbox"/> Food (like granola, dried fruit) | <input type="checkbox"/> Map & compass   |
| <input type="checkbox"/> Extra shoes                      | <input type="checkbox"/> Warm clothes    |
| <input type="checkbox"/> Rain jacket                      | <input type="checkbox"/> Cooking pot     |
| <input type="checkbox"/> Flashlight or headlamp           | <input type="checkbox"/> Trash bags      |

Why did you pick these items?

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### Draw Your Backpack

 Sketch your backpack with the items you chose inside!

## Pages 30-31: Trail Trek Game

This **game board** activity is designed to reinforce key concepts from the guide in a fun, interactive way. Students work in pairs or small groups, using dice and markers to move along the trail. At each stop, they answer a question that encourages them to recall facts, think critically, and connect what they've learned about Pennsylvania's trails, environment, and conservation.

The game supports:

- **Content knowledge** – reinforcing facts about trails, ecosystems, and environmental stewardship
- **Collaboration** – turn-taking, listening, and fair play
- **Critical thinking** – applying knowledge to answer questions and make connections
- **Engagement** – hands-on, competitive, and fun review format

This activity can be used:

- As a **culminating review game** after working through the guide
- In **small groups or stations** during class
- For **indoor learning days** when students need an active but contained activity

No special supplies are required beyond dice and markers (coins, buttons, or paper scraps work well). The game ends when all players reach the finish line, and the winner is the student with the most points.

### Environmental Literacy & Sustainability (ELS)

- **4.1.6-8.A** – Explain how human choices and natural events affect environmental health
- **4.3.6-8.A** – Evaluate how individuals and groups can act to conserve and protect resources
- **4.5.6-8.A** – Explain how ecosystems and human communities are connected through natural and built environments

### Earth & Space Sciences (ESS)

- **3.4.6-8.A** – Obtain and evaluate information about natural resources and human impact on Earth systems

### Life Sciences (LS)

- **3.2.6-8.A** – Construct explanations for how organisms depend on their environment

### Engineering, Technology & Application of Science (ETS)

- **3.5.6-8.A** – Define problems by specifying criteria and constraints for solutions

## Page 32: Design Your Own Greenway

### Activity Description:

In this activity, students use what they have learned about trails and greenways to design their own. They will:

- Name their greenway and identify what two places it connects.
- Sketch the route, labeling features such as parks, waterways, scenic views, or towns.
- Explain the **benefits** of their greenway (recreation, wildlife corridors, reducing pollution, connecting communities, etc.).
- List **animals** that might live along it.

This combines **creativity, geography, environmental literacy, and problem-solving**. Students may work individually or in pairs. Encourage them to think not only about people using the greenway but also about wildlife and the environment.

### **PA STEELS Standards (Grades 4–6)**

#### **Environmental Literacy & Sustainability (ELS)**

- **4.1.6-8.A** – *Explain how human choices affect environmental health.*
- **4.3.6-8.A** – *Evaluate how individuals and groups can conserve and protect resources.*
- **4.5.6-8.A** – *Explain how ecosystems and communities are connected through natural and built environments.*

#### **Engineering, Technology & Application of Science (ETS)**

- **3.5.6-8.A** – *Define design problems with criteria and constraints (students must decide what their greenway connects and what features to include).*
- **3.5.6-8.B** – *Develop and test design solutions (students compare greenways and explain benefits).*

#### **Life Sciences (LS)**

- **3.2.6-8.A** – *Explain how organisms depend on their environment (considering wildlife along the greenway).*

#### **ELA/Art Connections**

- **CC.1.5.5.A** – *Engage in collaborative discussions about ideas.*
- **Visual Arts** – *Use drawing to communicate ideas clearly.*

## Page 33-34: Greenway Personality Quiz

In this activity, students take a fun personality quiz to discover which Pennsylvania Greenway best matches their interests and outdoor style. The quiz includes five multiple-choice questions about favorite activities, scenery preferences, and how they would act in different outdoor situations. At the end, students tally up their responses to see whether they are most like the Lackawanna Greenway, Philadelphia Circuit Trail, Schuylkill River Trail, or Clarion River Greenway.

This activity encourages students to:

- Reflect on their own interests, values, and habits in nature.
- Make personal connections between themselves and Pennsylvania's unique Greenways.
- Recognize that different natural areas offer different opportunities (adventure, history, wildlife, city connections, or quiet exploration).

Teachers can use this as:

- A **standalone reflective activity**, perfect for wrapping up a unit on Greenways.
- A **discussion starter**, where students compare results and talk about why they might enjoy one type of trail over another.
- A way to integrate **SEL (social-emotional learning)** with environmental education, helping students see how their personalities connect with outdoor spaces.

### **PA STEELS Standards:**

- **3.3.4.A1:** *Identify and describe basic needs of living things and how they interact with their environment.*
- **3.3.4.A5:** *Describe how human activities affect the environment in positive and negative ways.*
- **3.4.4.E2:** *Apply a design process to solve simple problems. (Choosing how they would act on a trail shows decision-making).*
- **3.2.4.C6:** *Identify and apply patterns in nature (students connect personal traits to outdoor environments).*

### **SEL Standards (CASEL Framework):**

- **Self-Awareness:** *Recognizing interests, values, and how they relate to outdoor experiences.*
- **Social Awareness:** *Appreciating how peers may connect differently to nature.*
- **Responsible Decision-Making:** *Considering environmental choices (e.g., cleaning up litter, protecting wildlife).*

## Page 35: My Greenway Action Plan

On this page, students read how young leaders across Pennsylvania are making a difference in protecting trails, waterways, and communities. Afterward, they will complete an activity to design their own plan for how they can take care of their local greenways. This encourages reflection, responsibility, and creativity while showing students that their voices and actions matter.

### Activity:

Students brainstorm one way they could help a local trail, park, or creek. They fill out a short template:

- *My idea:* \_\_\_\_\_
- *Why it helps the environment:* \_\_\_\_\_
- *Who I could ask for help:* \_\_\_\_\_

### PA STEELS Standards:

- **3.3.4.A5:** Describe how human activities affect the environment in positive and negative ways.
- **3.4.4.E2:** Apply a design process to solve simple problems.
- **3.4.4.E4:** Communicate design solutions using written, verbal, and visual communication.
- **4.3.4.A:** Identify ways humans depend on natural resources.
- **4.2.4.C:** Explain how people can help improve water quality in a watershed.

### SEL Standards (CASEL Framework):

- **Self-Awareness:** Identifying personal values and goals related to the environment.
- **Responsible Decision-Making:** Considering the impact of choices on nature and community.
- **Relationship Skills:** Recognizing who they could collaborate with to make their idea successful.