



Interpreting the Importance of Natives

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Interpreting the Importance of Natives

- Ms. Normandin's class
- Jamestown Elementary
- Fifth Grade
- Arlington, VA
 - Chesapeake Bay Watershed
 - Middle Potomac-Anacostia-Occoquan sub-watershed



Environmental Issue

- How did your group investigate your community
 - Toured the blacktop playspace next to our school
 - With Mr. Shinnars the Master Naturalist and Park Steward for Jamestown Park
- What issues we found
 - Lots of invasives, such as burning bushes, porcelain berries, and much more
 - Invasives are quite common and spread easily, while being difficult to remove
 - Animals eat invasives and get extremely hurt or die
 - Mr. Shinnars removed many invasive last year around the blacktop and created a native plant garden
 - Some of us planted native trees in 4th grade with Mr. Shinnars behind the blacktop
 - He is planning a walking path through the newly planted natives



Our class touring



Environmental Issue

- Why did we choose our issue
 - There are too many people who don't know what plants are invasive
 - They also don't know
 - How to remove them
 - What native plants to plant instead
- How did we choose our issue
 - Narrowed our choices down by process of elimination until we only had two options
 - Planting natives or designing signs to teach about invasive plants
 - Voted by majority on designing signs
- Our community we will impact is our school and anyone visiting it
 - Students and teachers all go out to the blacktop almost daily
 - 4 out of 7 days most commonly
 - Some people come out to the blacktop on weekends and breaks to just hang out and play basketball or run around in the forest

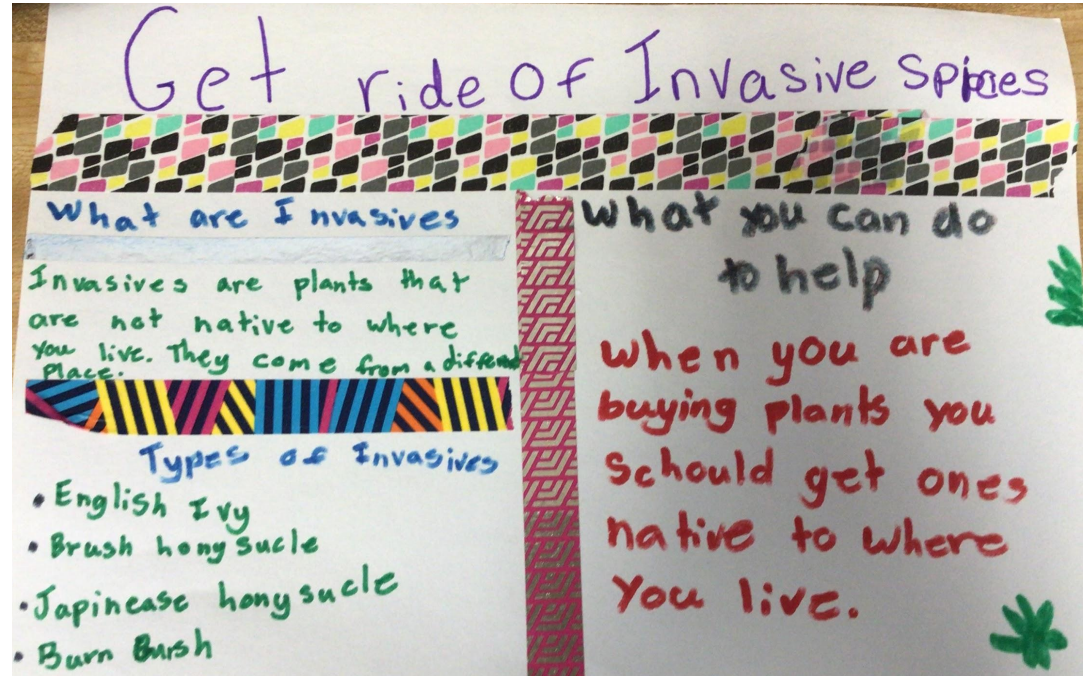


Solution

- Our goal is to put interpretive signs up to show people how to report and remove invasive species
- Advocate to work with Mr. Shinnars to design the path through the new natives next to the blacktop and help select the stepping stones
- We would then add our signs along the path



A draft of one of the signs



Solution

- To activate our plan we are going to create interpretive signs
 - An interpretive sign informs visitors about an area and helps make “visitors excited about something they hadn’t noticed or thought about before”
 - Our signs will
 - Describe what invasives are
 - Educate people on how to stop invasives
 - Encourage people to plant native plants

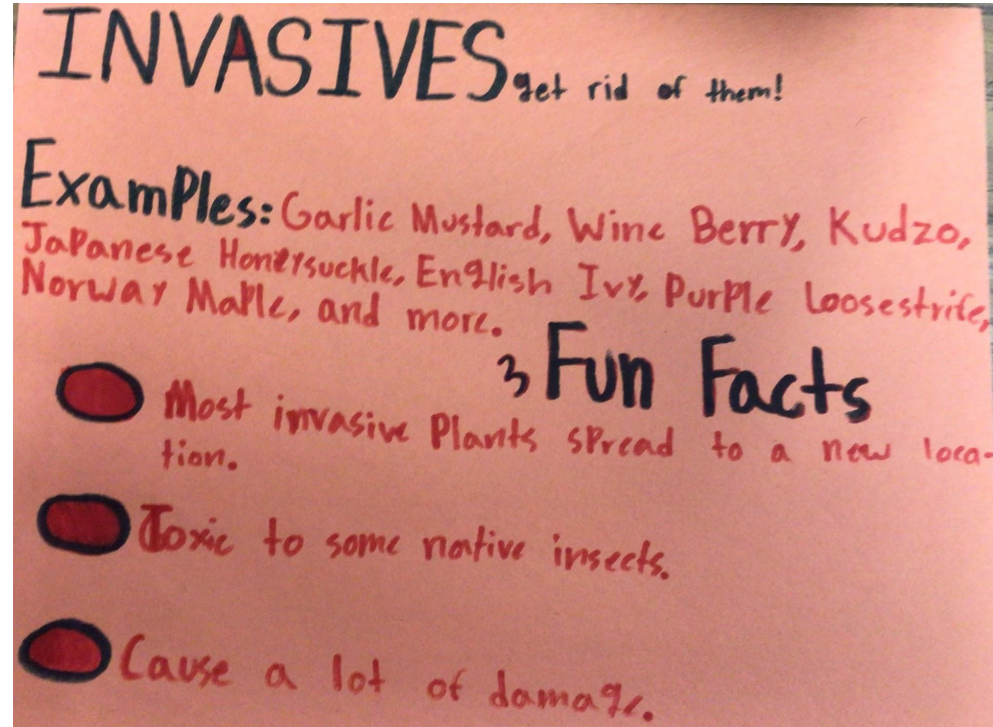


Solution

- Design 24 interpretive signs
 - Draft text after researching with Ms. Sharwarko, our Science Specialist teacher
 - Design visuals with our art teacher, Ms. Gaynor
 - 1 sign designed per student
 - Only place about 12 signs at a time to reduce visual overstimulation
 - 5th grade Green Team will store extra signs in Ms. Sharwarko's Science Closet and replace signs as needed



A draft of one of the signs



Solution

A draft of one of the signs

Things to know about invasives

What are Invasives?

Invasives are plants that are Not native to an area. They cause severe damage to Native trees and Native plants

Words to know

- Native Plants - Native to the area/belonging to a certain area
- clinging - getting stuck to
- Invasives - Non-native plants that can take over an area.

How do invasives travel? How do we get them?


Invasives can get from Place to place by clinging their seeds to the fur of animals, or getting stuck in the grooves of your shoe. They then ~~Travel~~ Travel to your backyard, or a nearby area. The Invasives spread, and grow.

Types of Invasives

- English Ivy
- Japanese honeysuckle
- Burning bush
- Bush honeysuckle
- Kudzu

Solution

A draft of one of the signs




Some types of invasives

- English Ivy
- Bamboo
- Garlic Mustard
- Japanese Honeysuckle
- Kudzu
- Burn Bush
- And many more!

What are Invasives?

Japanese Honeysuckle

This is a plant that wraps around trees and cuts off circulation and light.



Bamboo

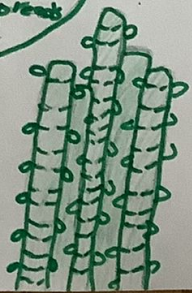
Bamboo is a plant that blocks light from other plants. This makes other plants die.

Spotted Lanternfly

Spotted lanternfly is native to China. It is a very bad fruit, ornamental and woody trees. Pruned host: Tree of heaven.

Kudzu

Kudzu is a plant that takes over other plants. Kudzu spreads very fast.




How to Stop invasives

- Dig up the roots
- Remove seeds from shoes to stop spreading
- Buy native plants
- Burn the plant
- Continuously remove them

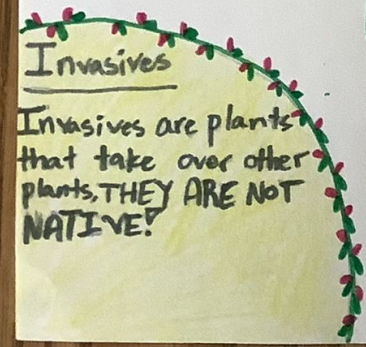
Natives

Natives are plants that belong to that area. THEY ARE NOT HARMFUL!



Invasives

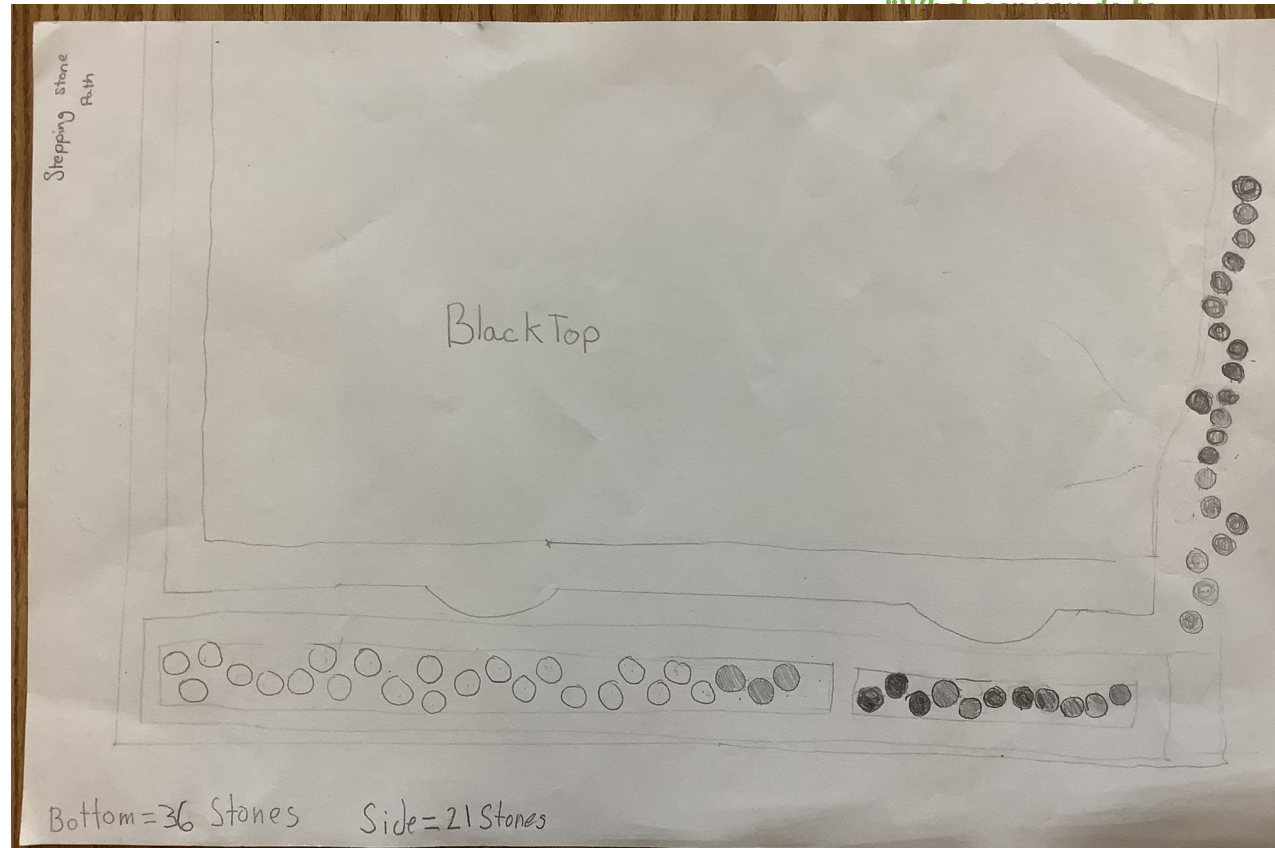
Invasives are plants that take over other plants. THEY ARE NOT NATIVE!



Solution

- Advocated to work with Mr. Shinnars on
 - Designing the stepping stone path
 - Selecting the stepping stones
 - Selecting higher quality stepping stones
- We will place the interpretive signs along the stepping stone path

Example of stepping stone path designs we shared with Mr. Shinnars



Solution

Examples of stepping stones we are considering purchasing



Solution

Our class with Earth Sangha staff at the blacktop

- During our research for our solution 2 staff members from Earth Sangha walked around the newly planted natives next to the blacktop and helped us brainstorm more natives to plant
 - Earth Sangha is a local native Wild Plant Nursery
 - We created lists of plants to purchase and plant during and after the walk based on what the Earth Sangha staff recommended
 - Mr. Shinnars and Ms. Sharwarko will purchase new natives from our plant lists
 - They will then schedule a date for us to plant



Solution

Examples of our recommended plants for purchase lists

<p>Milkweed</p> <ul style="list-style-type: none"> - Attracts monarchs 	<p>Oak trees</p> <ul style="list-style-type: none"> - Lots of different animals are attracted to it 	<p>Shady Dry</p> <ul style="list-style-type: none"> - Tulips - Phlox Divaricata - Oak tree - wild basil - wild columbine 	<p>Sunny</p> <ul style="list-style-type: none"> - Broadleaf Ironweed - Tulips - Common blue violets - Black Cherry tree - Liatris - yellow indigo - Sil Phium - Corcorass - Milkweed
<p>Black Cherry trees</p> <ul style="list-style-type: none"> - edible and good food source for animals 	<p>Dog wood</p> <ul style="list-style-type: none"> - Native and State tree will help environment 		
<p>Bee Bomb</p> <ul style="list-style-type: none"> - Attracts bees and humming birds 	<p>Coral Honeysuckle</p> <ul style="list-style-type: none"> - Attracts humming birds 		
<p>White Wood Aster</p> <ul style="list-style-type: none"> - grows well in Shady areas 	<p>Orange cone flowers</p> <ul style="list-style-type: none"> - has color that can attract animals 		
<p>Turtle Head</p> <ul style="list-style-type: none"> - Cute plant - Native 	<p>Mountain Mint</p> <ul style="list-style-type: none"> - Attracts bees - smells good 		
<p>Iris</p> <ul style="list-style-type: none"> - grows well - good for environment 	<p>Bleeding hart</p> <ul style="list-style-type: none"> - color that would attract animals 	<p>Shady wet</p> <ul style="list-style-type: none"> - Cupids heart - Bleeding heart - Turtles head → Joe Pye 	<p>Sunny</p> <ul style="list-style-type: none"> - Swamp rose - hibiscus - Blue mist flower

Solution

Final list of the plants we are purchasing from Earth Sangha for the blacktop stepping stone path area

JAMESTOWN PLANT LIST (SPRING 2023)

Wildflower Garden Poster Plants

Black-eyed Susan – 15 pots \$60

Orange Coneflower – 10 pots - \$40

Joe-Pye Weed – 55 pots - \$60

Rough-Stemmed Goldenrod – 25 pots - \$100

New York Ironweed – 10 pots - \$40

Dense Blazing Star – 15 pots - \$60

New England Aster – 10 pots - \$40

Wild Bergamot – 10 pots - \$40

Butterfly Weed – 10 pots - \$40

Tall Goldenrod - 10 pots - \$40

Bluestem Goldenrod – 10 pots - \$40

Cardinal Flower – transplant from yard

Solution

Our recommended plant lists were also used to select native plants to replace invasive plants on the hill behind the blacktop and at a nearby creek

Creek Area – Inside Playground – Hill Outside Playground

- Swamp Milkweed – 15 pots - \$60
- Common Milkweed – 15 pots - \$60
- Giant Sunflower- 10 pots - \$40
- Late Purple Aster – 15 pots - \$60
- Smooth Blue Aster – 15 - \$60
- Silky Dogwood – 10 pots - \$100
- Buttonbush –10 pots - \$100



- Swamp Rose – 5 pots - \$50
- Golden Ragwort – 10 pots - \$40
- Mountain Mint – 30 pots - \$120
- Wild Columbine – 10 pots - \$40
- Scarlet Beebalm – transplant from yard

Solution

- Installing interpretive signs supports Sustainable Development Goal 15, Life On Land
 - “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”
 - Target 15.8 is “by 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.”
 - Participate in by making signs that educate people about the problem of invasive species and encourages them to take steps to prevent them
 - Target 15.5 “Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species”
 - Impacted by
 - Advocating for a thoughtful design for the stepping stones, which will protect people from stepping on the new native plants
 - Planting more native plants



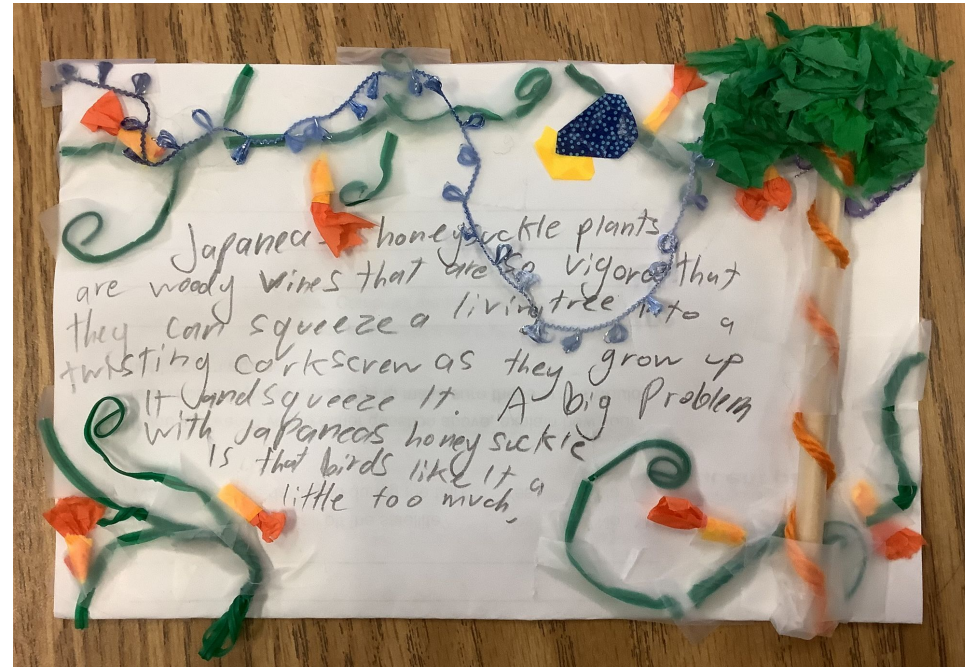
Environmental and Social Impact



- Interpretive signs

- Will help educate people on how the environment and watershed is failing and how they can help
 - For example signs will give information on types of invasive species and how to help get rid of them or prevent them from spreading
 - Checking your dog to see if it has seeds in its fur
 - Looking at your tires to see if they picked up seeds
 - Many places have been affected by invasives and letting people know how they can help the community will be very effective
 - This will help spread awareness almost as fast as invasives spread
- All of the students at our school, about 500 students, will be informed about this issue
- People can share with other people
- Encourage people to plant native plants

A draft of one of the signs



Environmental and Social Impact

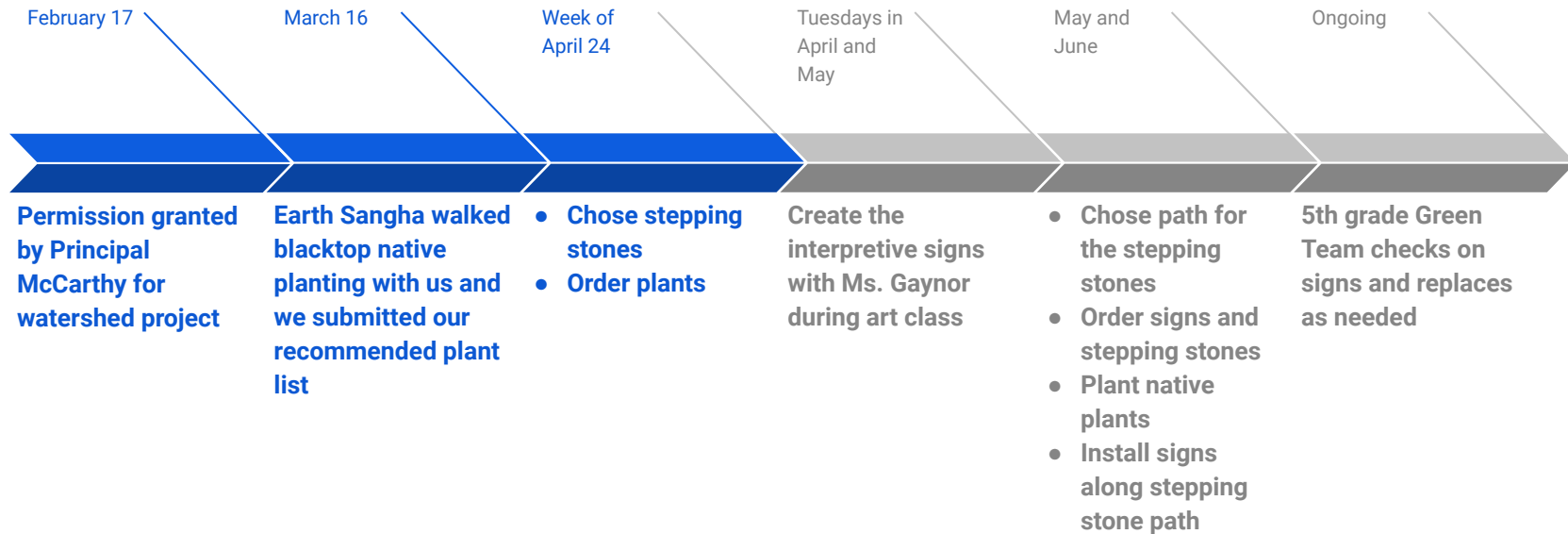


Example of stepping stones we are considering purchasing



- Stepping stones
 - Prevent future erosion
 - Help people walk around without destroying the new native plants or ruining soil
 - High quality stepping stones
 - Last a long time
 - Look good along with the pretty plants that will grow
- New native plants
 - Will attract pollinators
 - Good food source for animals

Timeline



Budget

- Donations
 - PTA outdoor education budget is \$1000
 - For plants we thought about with the professionals and the stepping stones
 - Mr. Shinnars will donate:
 - \$250 for plants
 - Scarlet beebalm from his yard
 - Cardinal flower from his yard
- We requested and received \$629.56 to implement our project
 - Our updated project total is \$1879.56
 - Our project total may increase after we determine our stepping stones and the quantity needed



[illegible]

Conclusion

Thank you so much for reading to our presentation on why we need interpretive signs and stepping stones to help our community.

- The signs are very important to us because:
 - They teach people how to help our watershed
- High quality stepping stones would help:
 - Preserve the native plants because people will not step on them
 - The high quality stones will last longer than low quality stones would

We really appreciate you reading through this proposal.

Thank you, Sincerely,
Ms. Normandin's class

1. Milk weed
2. Grasses
3. Golden rod
4. Broad leaf Iron leaf
5. Irises
6. Shrubs- Saint Johns wort
7. Mints
8. Orange cone flower
9. Black cherry tree
10. Bleeding heart
11. Liatris
12. Yellow indigo

