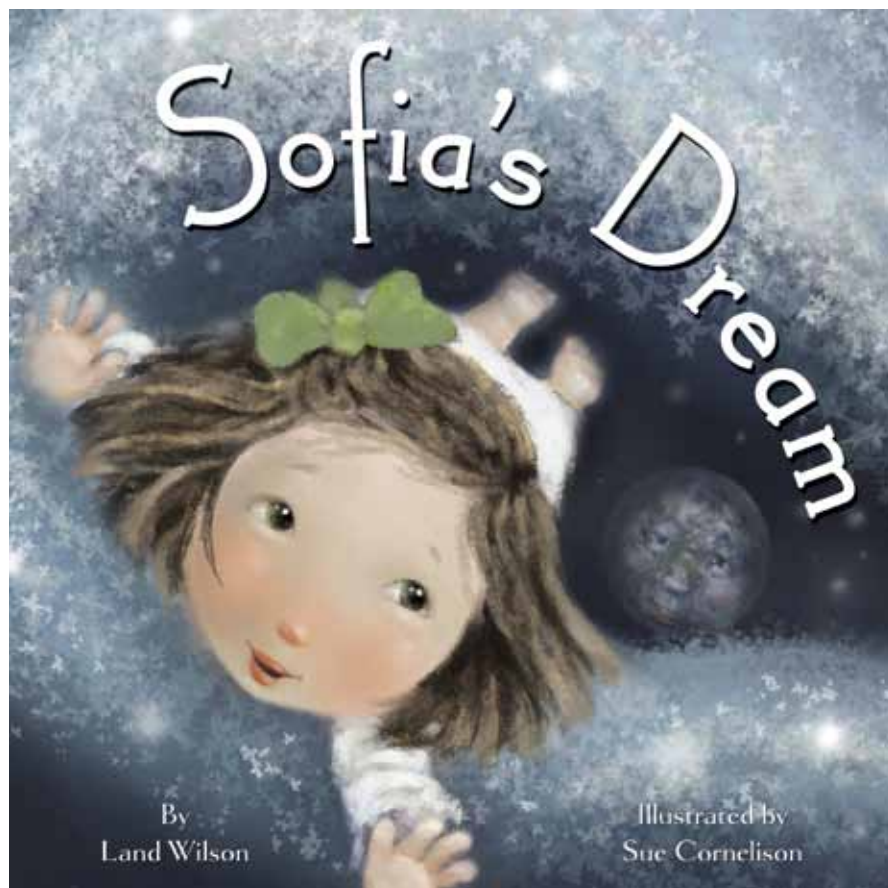


Little Pickle Press



Lesson Plans for Teachers Kindergarten - Grade 3

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Overview

In *Sofia's Dream*, author Land Wilson poetically depicts an ethereal friendship between a young girl and the moon. Through delightful rhyming text and endearing illustrations, children develop an appreciation for the Earth as our most precious gift and resource.

Wilson's inspiration for *Sofia's Dream* stems from childhood experiences with conservationist mentors who introduced him to the detrimental effects of human actions on environmental health. Although Wilson's early impassioned efforts to spread environmental awareness were frequently met with unresponsiveness, an adulthood mentor rekindled his sense of commitment to the environment and renewed his passion to act on this commitment. Wilson subsequently interviewed astronauts whose unique perspective on the Earth revealed a striking prevalence of air and water pollution, and a warning for the prolonged health of the Earth and its inhabitants: "You realize that humans had better learn to be more careful with this one and only place we need to live" (Captain Walter M. Schirra, Jr., 2000). Wilson's ongoing commitment to educating others about the critical importance of environmental health propelled him to translate this message in a meaningful way for children, resulting in the award-winning title, *Sofia's Dream*.

Sofia's Dream conveys a series of powerful messages encouraging children to internalize healthy habits of mind and action that promote their own well-being and that of the world they live in, including:

- experiencing the special bond and joy of friendship
- viewing an issue from multiple perspectives
- setting goals and aiming high to reach these goals
- educating oneself about how to care for the Earth and fellow beings
- taking action to restore the Earth's beauty and health
- spreading awareness to maintain a strong commitment to the Earth's well-being

The text provides an entry point for teachers to introduce children to a global perspective on the Earth's natural resources, especially those related to air, land, and water, and the interconnected relationship among these resources. Classroom activities in this instructional unit also enable teachers to cultivate children's character development through the pillars of communication, courage, and reasoning.

This unit includes three lesson plans as well as supplemental online resources to augment the more straightforward projects. The design of each plan allows teachers to build and embellish the activities to a level that best suits the needs of their classroom. Each lesson can be taught in class as described, though options for extension and an integrated community project are included.

At each grade level, the lessons align with the Common Core State Standards Initiative for Speaking and Listening (<http://bit.ly/corecurriculumstandards>). The Common Core was recently ad-



opted by the majority of states and is especially pertinent for educators in the United States.

Sofia's Dream is a picture book printed on recycled materials using soy inks and is an excellent addition to every school library. Please visit the links at the end of the lesson plans to see all of our products.



Project 1

Better Care for the World's Air



Background

The air we breathe with the clear skies above provides one of the greatest natural resources on Earth. Unfortunately, this resource is gradually diminishing as a result of toxic emissions produced by the world's vehicles, factories, and industrial production centers. These emissions can create or substantially worsen respiratory conditions. Not only are the toxic emissions detrimental to humans, but to other living creatures and plant life as well. Even residents of regions without such emissions are affected as wind can carry harmful pollutants across large distances. Toxic emissions have further contributed to depletion of the stratosphere, or ozone layer, leading to an increase in the level of harmful ultraviolet radiation that reaches the Earth and can eventually cause skin cancer.

Another key component of the Earth's air resources is the sky above. The stars and night sky help regulate the life cycles of both diurnal (i.e., humans) and nocturnal (i.e., raccoons) creatures. Unfortunately, increased light pollution resulting from an over-abundance of human-made artificial light shining into the night sky creates detrimental effects for living beings. Not only does light pollution interfere with our ability to wonder about the universe and enjoy the natural beauty of a starry night, it is particularly dangerous for many bird species. During migration, birds use the stars in the sky as a map to navigate their migratory patterns. Excessive artificial light interferes with the birds' ability to follow their natural path and often results in unfortunate collisions with objects that are rendered invisible because of the light.

As citizens of the world, it is both our duty and our right to educate ourselves about the causes and cures for these threats to our natural air resources.



Objectives

- Students will develop an understanding of the central issues related to the health of the Earth's air resources.
- Students will develop an understanding of how to better care for the Earth's air resources and set goals about increasing awareness and taking action to maintain these resources.
- Students will view the issue of healthy air from multiple perspectives, ultimately taking a broader view of the Earth's air resources and the role they play as individuals in this global scheme.

Focal Activities

Guiding Questions:

- Why is the air in our global environment important?
- What are some of our air resources (e.g., atmosphere, ozone layer, sky)?
- What are some living things that inhabit the air?
- What is air pollution? What causes air pollution?
- What is light pollution? What causes light pollution?
- What happens to living things when the air or light they need for survival becomes polluted?

Classroom Activity

Encourage students to take the perspective of creatures that spend much of their lives in the air (e.g., birds, insects). What happens to these creatures when this environment is not cared for properly? Students can use diverse artistic mediums (e.g., paint, drawing, role play, poetry) to create a representation of how these creatures could be impacted when their environmental conditions change. You might also encourage students to create multiple representations that depict these creatures' lifestyles across positive and negative environmental conditions.

Extension Activity

Talk to students about the environmental protection laws that exist in your community. How do your community's environmental protection laws compare with those of communities around the world? As appropriate, students can write individual or class letters to regional or national legislators encouraging them to adopt more stringent laws regarding environmental protection.

Comprehensive Community Project

Invite students to research the potential for air and light pollution in their community. For example, are motion detectors or stadium lights causing unintended consequences, such as keeping people awake at night or causing a glare which makes night driving difficult? Students can brainstorm ways to help reduce the air and light pollution in the community. As a school, create a pledge to take action to promote healthy air in the community (click on <http://bit.ly/createairpledge> for a sample Healthy Air Pledge).



Character Building Connections

The key character value to cultivate in this project is courage. Children can be encouraged to reflect on how their thoughts and actions impact the world's air resources:

- What goals can I set for myself to contribute daily to increasing the health of our air?
- How can I persevere in developing a healthy environment even if those around me are not participating in this effort?

Additional Online Resources

Clean Air, Healthy Children: <http://1.usa.gov/cleanairhealth>

AirNow: <http://bit.ly/nowair>

The Know Zone: <http://1.usa.gov/theknowzone>

Light Pollution:

- <http://bit.ly/starnightlight>
- <http://bit.ly/darkaware>

Natural Resources Defense Council: <http://www.nrdc.org/reference/kids.asp>



Project 2

Better Care for the World's Land



Background

The parks, forests, soil, mountains, deserts, and valleys that populate the global landscape provide not only a source of natural beauty, but one of the Earth's greatest resources as well. Unfortunately, land pollution, including litter visible to the naked eye as well as toxins seeping into the ground soil, interferes with this natural beauty. Litter that is disposed of improperly leaks toxins directly into the soil and also provides choking and other hazards for wildlife. Even waste that is disposed of properly can be problematic. Garbage that cannot be recycled generally ends up in a landfill. Much of this waste is non-biodegradable, meaning that it will not break down and be absorbed effectively by the earth. Continued dumping into landfills leads to pollution of both the ground soil as well as the neighboring air and water resources, potentially leading to skin problems, respiratory ailments, and cancer. Toxic chemicals released into the air often return to forests and land masses in the form of acid rain. Not only does this process harm plants and trees directly, the toxins seep into the soil and inhibit subsequent growth. Human activities such as mining and pesticide use are also detrimental to the richness and health of the ground soil and can interfere with the ability to cultivate our land productively.

As citizens of the world, it is both our duty and our right to educate ourselves about the causes and cures for these threats to our natural land resources.



Objectives

- Students will develop an understanding of the central issues related to the health of the Earth's land resources.
- Students will develop an understanding of how to better care for the Earth's land resources and set goals about increasing awareness and taking action to maintain these resources.
- Students will view the issue of healthy land from multiple perspectives, ultimately taking a broader view of the Earth's land resources and the role they play as individuals in this global scheme.

Focal Activities

Guiding Questions:

- Why is the land in our global environment important?
- What are some of our land resources (e.g., forests, mountains, deserts)?
- What are some living things that inhabit the land?
- What is land pollution? What causes land pollution?
- What happens to living things when the land they need for survival becomes polluted?

Classroom Activity

Encourage students to take the perspective of creatures that spend much of their lives on land (e.g., desert and forest animals, humans). What happens to these creatures when this environment is not cared for properly? Students can use diverse artistic mediums (e.g., paint, drawing, role play, poetry) to create a representation of how these creatures could be impacted when their environmental conditions change. You might also encourage students to create multiple representations that depict these creatures' lifestyles across positive and negative environmental conditions.

Extension Activity

Does your classroom or school have a garden? Invite students to take their gardening efforts a step further by writing about their experiences individually or as a class. Connect with other gardening classrooms around the world through a pen pal exchange or online blog. Students can use these written exchanges to share environmentally-friendly gardening tips (e.g., using vinegar instead of pesticides to keep bugs at bay, companion planting, etc.) with their international peers.

Comprehensive Community Project

Introduce students to the concept of organic farming. Discuss the benefits of this process not just for humans but also for the land and living creatures where this farming takes place. Students can also learn how organic farming occurs around the world. The project could culminate with a field trip to a local organic farm (see <http://bit.ly/slideranch> for an example).



Character Building Connections

The key character value to cultivate in this project is communication. Children can be encouraged to reflect on how their thoughts and actions impact the world's land resources:

- How can I most effectively spread the word about environmental health?
- How can I work together with others to increase the positive impact we can make for the environment?

Additional Online Resources

Earth Day:

- <http://bit.ly/ecobites>
- <http://bit.ly/kabooseED>
- <http://to.pbs.org/EDpbs>
- <http://bit.ly/earthdaycraft>

Kids for Saving Earth: <http://www.kidsforsavingearth.org/>

Kindness to the Earth: <http://bit.ly/earthkindness>

Rainforest Heroes: <http://bit.ly/RFheroes>

Land Pollution:

- <http://bit.ly/wikiland>
- <http://bit.ly/buzzleland>
- <http://bit.ly/lifeofearth>



Project 3

Better Care for the World's Water



Background

The world's oceans, rivers, lakes, ponds, and streams are a life source for an infinite number of living beings. Unfortunately, these beautiful natural resources are being polluted by human activity. Because of the constant flow of water across great distances, the actions (or inaction) of one community can impact distant lands, people, and creatures. We must remain conscious of the shared nature of these water resources. For example, building a river dam to increase the water supply of one community can simultaneously diminish the water supply to another community downstream, potentially interfering with the impacted community's ability to cultivate food resources necessary for survival. Dumping waste directly into the oceans, as well as into streams and rivers that feed the oceans, is detrimental to marine life. Similar to the waste that is dumped into a landfill, much of the waste that winds up in our water resources is non-biodegradable, meaning that materials that cannot be broken down and absorbed by the water or land beneath are left to contaminate the habitat of marine life. Untreated sewage and waste water from domestic, agricultural, and industrial operations often land in rivers and oceans, further contaminating these natural water resources. One of the most tragic forms of water pollution involves oil spills, which release a vast amount of toxic material into a relatively small space. These oil spills are particularly harmful to marine birds as the oil causes feathers to lose their water resistance and stick together. The birds' attempts to clean the oil off of their bodies can lead to further ingestion of toxins. Oil spills also interfere with fish and their ability to breathe, and can impede the natural photosynthesis process of marine plants.



Objectives

- Students will develop an understanding of the central issues related to the health of the Earth's water resources.
- Students will develop an understanding of how to better care for the Earth's water resources and set goals about increasing awareness and taking action to maintain these resources.
- Students will view the issue of healthy water from multiple perspectives, ultimately taking a broader view of the Earth's water resources and the role they play as individuals in this global scheme.

Focal Activities

Guiding Questions:

- Why is the water in our global environment important?
- What are some of the world's water resources (e.g., oceans, rivers, streams)?
- What are some living things that inhabit the water?
- What is water pollution? What causes water pollution?
- What happens to living things when the water they need for survival becomes polluted?

Classroom Activity

Encourage students to take the perspective of creatures that spend much of their lives in the water (e.g., fish, whales). What happens to these creatures when this environment is not cared for properly? Students can use diverse artistic mediums (e.g., paint, drawing, role play, poetry) to create a representation of how these creatures could be impacted when their environmental conditions change. You might also encourage students to create multiple representations that depict these creatures' lifestyles across positive and negative environmental conditions.

Extension Activity

Watersheds constitute an important environmental feature where multiple water resources drain into a central basin. Explore the variety of watersheds that exist around the world. As a class, create a model watershed (See <http://bit.ly/EDwatershed> for easy-to-use directions). Students can practice using different materials to see firsthand what happens to the water supply when harmful pollution is introduced into the system.

Comprehensive Community Project

Lead students in an investigation of water resources and usage in your community. Where does drinking water come from? How much water does the average household in the community use? Does the community spray pesticides that may inadvertently land in water resources? What happens to waste that is deposited in the drain or toilet? The project could culminate with a field trip to a local wastewater plant. During the visit, students might learn about how to reduce toxic dumping into water resources, thereby reducing the quantity of water in need of detoxification.



Character Building Connections

The key character value to cultivate in this project is reasoning. Children can be encouraged to reflect on how their thoughts and actions impact the world's water resources:

- How can I make thoughtful decisions that help the environment every day?
- How can I help solve environmental problems in my community?

Additional Online Resources

How Kids Can Help Keep Water Clean: <http://bit.ly/kidscleanwater>

Protecting Our Water Resources: <http://bit.ly/watertoolkit>

Youth and Water Resources: <http://bit.ly/wateryouth>

How Can I Help Protect Our Water Ecosystems: <http://bit.ly/ecoprotect>

Dams: <http://bit.ly/dryriver>

Water Pollution:

- <http://bit.ly/videowater>
- <http://www.water-pollution.org.uk/>



Little Pickle Press Resources

This concludes our lesson plan for *Sofia's Dream*. If you have comments, questions, or other ideas please share them with us at the special blog link we have created:

<http://bit.ly/bloglessonplans>

Additional lesson plans are available for other titles in our collection, so please check the resource link at our webpage often:

<http://bit.ly/LPPLessonplans>

Please visit any of the following links to view our products:

Picture Book: <http://bit.ly/lppshopsofia>

Poster: <http://bit.ly/sofiaposter>

iBook: <http://bit.ly/sofia-ib>

NOOK Book: <http://bit.ly/sofianookbook>

Kindle e-book: <http://amzn.to/sofiakindle>

Original Music by Jasmine Saldate: <http://bit.ly/dreamingcdbaby>

Video trailer: <http://bit.ly/SDtrailer>

Awards:

- 2011 Mom's Choice Gold Award, Children's Picture Books
- 2011 Moonbeam Gold Award, Environmental Issues

To find the book elsewhere, please use this information:

Sofia's Dream by Land Wilson

- Reading level: Ages 4-8
- Hardcover: 32 pages
- Publisher: Little Pickle Press; 1st Edition (November 2010)
- Language: English
- ISBN-10: 0982993811
- ISBN-13: 978-0982993811
- Product Dimensions: 10.1 x 10.1 x 0.4 inches
- Shipping Weight: 14.4 ounces