



Creation Care Problem Solvers

Big Name Hunters

by Anne Neuberger

This resource focuses on three “Big Name” problem solvers who changed the way we think about the natural world in three distinct ways.

We have provided a short biography for each person, as well as a number of ideas for how curious creation care kids can learn more about these individuals. Those ideas can be used in a classroom setting or for individual study.

Note: An adult should oversee all online research done by children.

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“Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher ‘standard of living’ is worth its cost in things natural, wild, and free.”

Overview

- American scientist, teacher, author, ecologist, forester, conservationist, and environmentalist.
- Called the “father of the science of wildlife management.”
- As a teacher, his goal was to teach students to see and observe the land, to understand what they see and enjoy what they understand.
- Wrote the first textbook on what is now called “wildlife ecology.”
- Developed what is now called environmental ethics; he called it a “[land ethic](#)”: a responsible relationship existing between people and the land they inhabit.

Biography

It was still dark those early autumn mornings when Aldo woke up. He and his father pulled on hip boots and quietly left their big house perched high on a hill in Iowa. They clumped down the hill towards the Mississippi River.

Aldo’s father had taught him to watch for signs of animal’s lives. Aldo pointed out the remains of a shrew. “Somebody’s dinner,” his father said. “Do you think a mink or a muskrat ate that?”

“Mink. Muskrats only eat fish and plants,” Aldo answered.

“What else do you see?”

“There are tracks, which have one foot slightly ahead of the other—that’s a mink, not muskrat. Besides, we aren’t close enough to the water yet for it to be a muskrat.”

His father smiled and nodded, and headed towards the river.

There they crouched down to watch and listen. “The ducks are heading south now. We are so fortunate to live along the Mississippi River. It is a pathway for the ducks and geese—about one-fourth of all them in the United States use the river as their ‘road’ to travel south and then back again in the spring.”

Later they trudged home, Aldo and his father enjoying the different colors of the trees’ bark and leaves, the cool wind, and sound of honking geese overhead.

Aldo’s family liked to hunt and fish. Today there are rules about when, what kinds of animals, and how many can be hunted. When Aldo was a boy, there were no such rules. His father had his own rule: he never hunted during nesting season. Through his father, Aldo was learning to think about creation care while he was still a child.

Aldo’s mother encouraged him to read and get a very good education. When he was college age, he went to Yale University. He loved studying birds (ornithology) and natural history, and he got his master’s degree in Forestry.

After graduation, Aldo worked for the United States Forest Service in New Mexico and Arizona. Animals, forests, water, soil, and people all have to live together. Aldo had clear ideas of how best to do this, and he was able to try out these ideas as a forester.

He worked hard for years in several places, helping foresters learn how to best protect parks, and even getting certain pieces of land protected as “wildlife areas.” He accomplished this years before other people thought to do this. Aldo did research, such as surveys of animals in an area to make certain there was a good balance.

He wrote many, many articles and books. He passed on his knowledge to students as a teacher at the University of Wisconsin. Aldo was the first professor of a new department in the university, then called “game management” (now wildlife ecology). It was the first such department in any university in the United States! His work was greatly respected. Many people came to feel

he was the greatest conservationist of the 20th century.

It was a project Aldo did with his family that led him to write his most famous book. You can still visit the place where they worked. What was this project?

Aldo bought some land near the Wisconsin River. It was worn out from farming and years of weather called “the dust bowl.” There were patches of grass and patches of sand, and a few scraggly trees. The only building was an old chicken coop. The Leopold family set about to heal this land. No one else in the country was thinking about this kind of project.

They turned the chicken coop into a shelter by painting it and putting in some bunk beds, a stove, and a few chairs—it was very simple. But here they slept on weekends, spending the daylight hours planting thousands of trees, gardening, putting in prairie plants, and enjoying this piece of earth. It was like a workshop for the Leopolds. As they went along, they learned a great deal about restoring injured land.

Aldo wrote about this project, resulting in the book, *A Sand Country Almanac*.

More than forty years after it was published, it was still considered one of the important environmental books of the 20th century, along with Rachel Carson’s *Silent Spring*. And twenty years since that time, more than 30,000 copies are still purchased each year!

Of course this means his writing reached millions of readers. The current environmental movement is greatly influenced by his work.

A professor of today says, “As a society, we are just now beginning to realize the depth of Leopold’s work and thinking.”

For Curious Creation Care Kids

- Aldo was an ecologist, forester, conservationist, and environmentalist. Using the definitions here, find examples of each of these in the story.

A **conservationist** is someone who works to protect animals, plants, and natural resources or to prevent the loss or waste of natural resources

An **ecologist** is a scientist who studies the environment and the way that plants, animals, and humans live together and affect each other

An **environmentalist** is a person who works to protect nature from pollution and other threats

A **forester** is a person in charge of a forest or skilled in planting, managing, or caring for trees

- See other parts of this resource (Big Name Hunters or Heroes for Animals) and use the above definitions to decide which are ecologists, environmentalists, etc.—or more than one, like Aldo.

- Are you interested in working to preserve or heal creation? Research different kinds of jobs mentioned here.

- Aldo was said to be one of the first people to develop “environmental ethics.” Here are definitions:

Ethics: a study that deals with ideas of what is good and bad (or hurtful) behavior

Land ethic: Aldo’s term, meaning: a responsible relationship existing between people and the land they inhabit.

Environmental ethics: a study of how humans behave in good and bad behavior towards nature; and what is the value of creation.

- Discuss one or more of the following questions related to environmental ethics:

Should we continue to destroy rain forests to produce products humans use?

Should we continue to make gasoline-powered vehicles that contribute to climate change?

Must we make changes for the children in the next generations?

- Aldo wrote, "Now we face the question whether a still higher 'standard of living' is worth its cost in things natural, wild, and free."

What is a standard of living?

How do our standards cost natural things?

What could you do so there is less cost to natural things?

Ask yourself: what am I willing to give up or change?

- Aldo's father taught him many ways to learn about and appreciate animals and plants. One way was through animal tracking. Have fun with this site:

OldNaturalist.com/animal-tracking/

- Choose one or more Aldo Leopold quotations to discuss:

"I am glad I will not be young in a future without wilderness."

"There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from

the furnace."

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

"The last word in ignorance is the man who says of an animal or plant: 'What good is it?'"

(Quotes from GoodReads.com)

- Find resources for teaching a land ethic from the Leopold Education Project:

AldoLeopold.org/AldoLeopold/teachingtools.shtml

- Children's book suggestions:

[*Aldo Leopold: Protector of the Wild*](#)

By Della Yannuzzi

For Grades 4 and up

[*Aldo Leopold's Shack: Nina's Story*](#)

By Nancy Nye Hunt

Forward by Nina Leopold Bradley

For Grades 3 and up

[*Things Natural, Wild and Free: The Life of Aldo Leopold*](#)

By Marybeth Lorbiecki

For Grades 4-7

[*Who on Earth is Aldo Leopold? Father of Wildlife Ecology*](#)

By Glenn Scherer and Marty Fletcher

For Grades 5 and up

"We have a choice to use the gift of our lives to make a difference. It's up to us to decide what kind of difference we're going to make."

Overview

- British primatologist and anthropologist.
- A "Messenger of Peace" for the United Nations.
- Considered to be the world's foremost expert on chimpanzees.
- For more than 50 years, has been conducting one of the most important and ground-breaking studies of chimpanzees' family and social behavior in Gombe Stream National Park, Tanzania. In this work, she developed new ways to study primates, which led the way for other scientists.
- Through her discoveries of chimpanzee's behavior, she changed the way people think about these animals.
- Has received many awards in both the scientific and social communities; a short list includes National Geographic Hubbard Medal, Benjamin Franklin Medal, the Gandhi-King award for Non-Violence, the Albert Schweitzer Award; Queen Elizabeth gave her the highest honor of "Dame of the British Empire."
- Has a PhD from Cambridge University, and honorary degrees from 15 other universities!
- Now in her 80's, she devotes virtually all of her time to help others learn how to care for the earth, and to fight for care for chimpanzees; she travels nearly 300 days a year.

Biography

When a new chimpanzee was born at the London Zoo, one-year-old Jane Goodall was given a toy chimpanzee as a gift. "That will give the baby nightmares," friends cautioned. But little Jane loved it. She toddled around, carrying it wherever she went.

At age five, Jane was curious about how eggs were laid. She quietly followed a chicken into a hen house and settled down into the scratchy straw. She waited and watched. She didn't realize her parents were searching for her. Jane only knew she wanted to see that hen lay an egg. Hours later, she was rewarded for her patience and observed a hen lay an egg! Her frantic parents were about to call the police when she emerged from the hen house. When Jane's mother saw how excited Jane was, she sat down and listened to every word of Jane's story.

During Jane's elementary school years, her home country of England was very involved in World War II. Despite this and her father being away in the army, Jane had a happy childhood. Always reading, she loved a story called *Doctor Dolittle*, a tale of a doctor who learns to speak with animals and travels to Africa. Young Jane's dream was to someday live in Africa, to watch and write about animals. This was a strange goal for a child, and at that time it was especially unusual for a girl to think she could do something so adventuresome. But Jane's mother didn't laugh. Instead she advised, "If you really want something and if you work hard, take advantage of the opportunities, and never give up then you will somehow find a way."

When she graduated from high school, her family could not afford to send her to college. She learned to be a secretary and worked several kinds of jobs. Then an opportunity came: a friend invited her to Kenya! Jane worked very hard to save up the money for the boat fare. Her dream of watching free, wild animals living their normal lives was still very strong. "I wanted to learn things that no one else new, uncover secrets through patient observation," Jane said.

In Kenya she met an important scientist named Doctor Louis Leakey. He hired Jane to be his assistant. A few years later, Jane's dream came true: she and Doctor Leakey began a study of wild chimpanzees! Her dream became her life's work.

Like the child who waited for hours in the hen house, the young woman learned to wait quietly amongst the trees and plants until the shy chimps began to trust her.

What she learned would astonish the world and make her famous.

Up until then, it was believed that the most important way that we humans were different from apes and monkeys was that humans make and use tools. Until, that is, Jane watched a chimp take a long, narrow leaf and slide it into a stump. When he pulled it out, it was covered with insects called termites, which the chimpanzee happily ate. She also saw chimps choose a leaf and fold it to make it work better to get at the termites. Next she saw a baby chimp imitating this with a leaf that was too wide. Its big sister showed it how to find a better leaf that would work.

Doctor Leakey said, "Now we must redefine [what we mean by a] tool, redefine Man [human] or accept chimpanzees as humans." Jane's discoveries changed some long-held attitudes.

It was also believed that chimpanzees did not have emotions or personalities, and they did not think. Her years of watching convinced her that this was incorrect too. She also learned that chimps ate meat, and would fight each other. She had to convince many people of these things. But when *National Geographic Magazine* started writing about her work and the chimps, her findings became accepted and appreciated.

Jane worked for years this way. She also wrote many books, and started a research center. By this time, protecting chimpanzees was become urgent. She began a program to help captured chimps, improving their lives and helping them to go back to the wild. As time went on, Jane became concerned about the environment. Her focus has broadened. She speaks all over the world, working to save the animals and all creation.

For Curious Creation Care Kids

- Roots and Shoots is a worldwide, youth-led community action group started by the Jane Goodall Institute. It is in more than 130 countries, with more than 150,000 members. You can join too!

Learn about the group at the following links:

RootsAndShoots.org/about
[Youtu.be/5WkqMERnwXk](https://youtu.be/5WkqMERnwXk)

What is "Team Jane?" What is "Mobile Recycling?" At find out the answers, see:

RootsAndShoots.org/campaigns

Name three projects of Roots and Shoots members in Canada:

RootsAndShoots.org/projects/search/Canada

Name three projects of Roots and Shoots members in China:

[RootsAndShoots.org/projects/search?ff\[0\]=country_name%3AChina](https://RootsAndShoots.org/projects/search?ff[0]=country_name%3AChina)

Explore the world map to see of kinds of Roots and Shoots projects in many places

Google.com/maps/d/u/0/viewer?mid=1nztYclgvXUAxv8YwC4sEd_V0

Look for 3 projects going on in the United States that interest you:

[RootsAndShoots.org/projects/search?ff\[0\]=country_name%3AUnited%20States](https://RootsAndShoots.org/projects/search?ff[0]=country_name%3AUnited%20States)

- There are many helpful videos about Jane Goodall, filled with her fascinating experiences, her concerns for the future of creation, and her ideas to solve some of these problems.

These Animal Planet videos about Jane and her work are short, informational and delightful; they are particularly good for younger children.

- Chimps Use Tool Like Humans and Teach Each Other
- Chimps Have Good Laughs Too, Like People
- Chimps and Physical Contact

AnimalPlanet.com/video-topics/wild-animals/apes-and-other-primates-videos/jane-goodall/

- Watch a video of Jane speaking with elementary and middle school students.

Full video: <https://youtu.be/qj6cKfcZwsc>

Excerpts: <https://youtu.be/1pYxgruZylc>

Consider using the long video despite its length, perhaps by dividing it into three different viewing times. It is involved (covering several topics), informational, and inspirational. Jane is very comfortable speaking with children about important and complicated issues.

She shares experiences of her own childhood and the

challenges she faced in pursuing her long-time dream of observing animals in Africa and writing about them. Jane emphasizes to the students the importance of believing in themselves, no matter what the odds of accomplishing their dreams.

She empowers them by informing them of ways to act on environmental issues, particularly through her world-wide organization, Roots and Shoots

Jane tells stories of specific chimpanzees, helping children see what she discovered, and how humans can appreciate their great connections with these animals.

She helps the students understand a variety of environmental problems, helping them become more aware of issues that need to be dealt with and the connectedness of all life.

- Choose one or more Jane Goodall quotations to discuss.

1. What do you like about it?
2. Discuss this quotation with someone.
3. Write a question based on what Jane said. For example:

“We have a choice to use the gift of our lives to make a difference. It’s up to us to decide what kind of difference we’re going to make.”

- Have I decided to use my life in a meaningful way?
- What kind of difference do I want to make?

“Every individual matters. Every individual has a role to play. Every individual makes a difference.”

“It would be absolutely useless for any of us to work to save wildlife without working to educate the next generation of conservationists.”

“The greatest danger to our future is apathy.”

“If we kill off the wild, then we are killing a part of our souls”

“The most important thing is to actually think about what you do. To become aware and actually think about the effect of what you do on the environment and on society. That’s key, and that underlies everything else.”

“For those who have experienced the joy of being alone with nature there is really little need for me to say much more; for those who have not, no words of mine can ever describe the powerful, almost mystical knowledge of beauty and eternity that come, suddenly, and all unexpected.”

“My mission is to create a world where we can live in harmony with nature.”

(Quotes from AZQuotes.com)

- Children’s book suggestions:

[*The Chimpanzees I Love: Saving their World and Ours*](#) by Jane Goodall (Grades K-4)

[*Jane Goodall \(Rookie Biographies\)*](#) by Jodie Shepherd (Grades 1-3)

[*Jane Goodall \(Time for Kids Nonfiction Readers\)*](#) by William Rice (Grades 3-5)

[*Me....Jane*](#) by Patrick McDonnell (Grades PreK-2)

[*My Life with the Chimpanzees*](#) by Jane Goodall (Grades 3-7)

[*Untamed: The Wild Life of Jane Goodall*](#) by Anita Silvey (Grades 3-7)

[*The Watcher: Jane Goodall’s Life with the Chimps*](#) by Jeannette Winter (Grades Preschool-3)

“The place seemed holy, where one might hope to see God.”

Overview

- Called of the United States’ most influential naturalists.
- One of the earliest conservationists in the United States.
- Called the “Father of Our National Park System”; leader in getting Yosemite National Park established, and also securing parks in the Grand Canyon and Sequoia regions.
- Co-founder of the Sierra Club.
- Called the “Patron Saint of the American Wilderness.”
- Prolific writer whose work taught generations that heaven and earth are connected: that God can be found in nature and it is up to us to protect this gift for both our souls and our bodies
- Explorer, inventor, writer, speaker, farmer, shepherd

Biography

Born in the beautiful country of Scotland, John was only four years old when he became fascinated by the wonders of nature around him. Having started school at age three, he was learning three languages, math, and geography by the time he was seven. John especially enjoyed reading about the birds and other animals of North America in books by John Audubon.

His family moved to the United States when John was eleven. They began farming in Wisconsin, which had become a state the year before (1848). At that time it was mainly a place of forests and small farms, though the cities of Madison and Milwaukee were established. A great deal of the United States was wilderness.

From then on, John did not go to school. He farmed long hours each day for his father. Still, he taught himself geometry, literature and philosophy. Whenever they

could, John and his brothers roamed the meadows and woods together. John became a keen observer. By age sixteen, he began inventing clever things, mainly out of wood—clocks, a barometer, a table saw, and an ingenious devise that dumped him out of bed each morning!

The year that Abraham Lincoln was elected President of the United States, John was 22. He went to Madison to show his inventions at the State Fair, where received great praise and attention. He then attended the University of Wisconsin. He studied geology and also became fascinated by botany.

A few years later, John took the first of his “walks” along the Mississippi River—1000 miles! John took many of these long walks, sometimes wading into a sea of waist-high wildflowers, or at night sitting on a flat rock at in the mountains, listening to a waterfall, appreciating the stars, and praying.

From then on, his main work was to explore the wild places of the world, learn how important they were, and teach others this too. He climbed up mountains and down into gorges, studied the ancient redwoods, explored the lava beds in California, and appreciated the sounds and the silences of these wild places. He led others through these areas, teaching them all he had learned about the rocks, trees, plants, sky, and clouds. And he climbed more mountains. He sailed rivers and climbed even more mountains.

He also saw how easily some of these amazing places such as the Sierra Nevada mountain range could be damaged or even destroyed if they were not protected. When he was not in these wild areas, he was working to preserve them. He spoke to groups of people, many of them famous conservationists. He went camping with President Theodore Roosevelt to convince him that the country needed national parks. And he wrote more than 300 articles and 12 books. These writings changed the way Americans saw their mountains, forests, seashores and deserts—and all that lived in those places. His writings and talks opened the way for others to also work to preserve these areas.

The little boy who loved nature and the man who believed that all of life is sacred left us a heritage of magnificent lands and poetic writings. Both help us see the wonder, grandeur and preciousness of creation.

For Curious Creation Care Kids

- Learn more about John and his work on the Sierra Club website:

http://vault.sierraclub.org/john_muir_exhibit/life/chronology.aspx

- Author Laura Ingalls Wilder (of the *Little House* books) was born in Wisconsin. One title from her series, *Little House in the Big Woods*, describes farming life there in 1871. Muir lived in Wisconsin from 1849-1864. Wilder's writing gives such a detailed picture, it will help young readers understand how much of North America was wilderness in that era.

- John Muir founded the Sierra Club. What has this club done for the United States? What does it do now?

SierraClub.org/about

PBS.org/nationalparks/about/

PBS.org/nationalparks/people/historical/muir/

PBS.org/nationalparks/

Coloring for Conservation: SierraClub.org/lay-of-the-land/2016/04/happy-birthday-john-muir

- Write down your address. Then read how John wrote his address in a notebook during his 1,000 mile walk in 1867:

John Muir,
Earth-planet, Universe

- Why do you think he wrote that? What do you think he meant?
- Look at your address again and think about how you think about where you are. Do you think of yourself as a citizen of the world? What does/would that mean to you?

- Some writers have said John Muir was like St. John the Baptist. What do you think they meant by that?

Look up:

- Isaiah 40:3
- John 1:23

Other writers have said John Muir was like a psalmist.

Look up:

- Psalm 104:1-34
- Psalm 148

- With a world map or globe, find all the places John traveled. He traveled to some of these places many, many times, especially in the United States and Alaska (which became a state in 1959).

He went to: Canada, Alaska, many parts of the United States, South America (including the Amazon), Scotland, England, Ireland, Norway, Switzerland, France, Germany, Finland, Russia, Siberia, Korea, Japan, China, India, Sri Lanka, Egypt, Australia, New Zealand, Malaya, Indonesia, Philippines, Hong Kong and Hawaii.

You can download a blank map at: <http://www.un.org/Depts/Cartographic/map/profile/world.pdf>

More about John's places: http://vault.sierraclub.org/john_muir_exhibit/geography/important_places.aspx

- John Muir lived from 1838-1914. Check out which states became states in his lifetime. Which ones were still not states when he died?

<http://www.50states.com/statehood.htm>

- What do a mineral, flower, bird, pike and millipede have in common? See:

http://vault.sierraclub.org/john_muir_exhibit/science/

- Quotations from John Muir

Because he wrote so many books and articles, anyone born long after John Muir lived can still learn from his wisdom and his understanding that

nature and God's spirit are connected. Choose one quotation you especially like. Then let it inspire you to create something:

- Write a prayer and share it with your family or class
- Paint a picture of something Muir describes, or choose some place you love and paint or draw that
- For a week, or a month, take photographs of something in nature. Try to find something new to photograph every day. Put these photos into an online album to share with friends and family.
- Watch an animal that is common where you live, such as a bird or squirrel. Sit quietly and observe its movements, its coloring, what it does, etc. Write about this later.
- Go outside near trees, a garden, a park, etc. Then just listen, or just inhale the smells, and touch the textures (such as tree bark).
- Write a poem about something you have experienced in nature.
- Think about God's designs in creation: how does a worm affect the soil? How does the soil affect the flowers? How do the flowers affect the bees? How do the bees affect people and animals? Decide to always wonder and learn about how things work together for good in creation.
- Sit or stand quietly outside. Do you find you want to talk with God then?

"Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike."

"God's love is manifest in the landscape as in a face."

"A few snow crystals were shaken down from a black cloud towards midnight, but most of the day was one of deep peace, in which God's love was manifest as in a countenance."

"There are no accidents in Nature. The flowers blossom in obedience to the same law that marks the course of constellations, and the song of a bird is the echo of a universal symphony. Nature is one, and to me the greatest delight of observation and study is to discover new unities in this all-embracing and eternal harmony."

"Surely all God's people, however serious or savage, great or small, like to play. Whales and elephants, dancing, humming gnats, and invisibly small mischievous microbes - all are warm with divine radium and must have lots of fun in them."

"Lizards of every temper, style, and color dwell here, seemingly as happy and companionable as the birds and squirrels. Lowly, gentle fellow mortals, enjoying God's sunshine, and doing the best they can in getting a living, I like to watch them at their work and play. They bear acquaintance well, and one likes them better the longer one looks into their beautiful, innocent eyes."

"The place seemed holy, where one might hope to see God. After dark, when the camp was at rest, I groped my way back to the altar boulder and passed the night on it, above the water, beneath the leaves and stars, everything still more impressive than by day, the fall seen dimly white, singing Nature's old love song with solemn enthusiasm, while the stars peering through the leaf-roof seemed to join in the white water's song. Precious night, precious day to abide in me forever. Thanks be to God for this immortal gift."

"The air is distinctly fragrant with balsam and resin and mint, every breath of it a gift we may well thank God for. Who could ever guess that so rough a wilderness should yet be so fine, so full of good things. One seems to be in a majestic domed pavilion in which a grand play is being acted with scenery and music and incense, all the furniture and action so interesting we are in no danger of being called on to endure one dull moment. God himself seems to be always doing his best here, working like a man in a glow of enthusiasm."

"When we try to pick out anything by itself we find it hitched to everything else in the universe...The whole wilderness is unity and interrelation, is alive and familiar, full of humanity. The very stones seem talkative, sympathetic, brotherly."

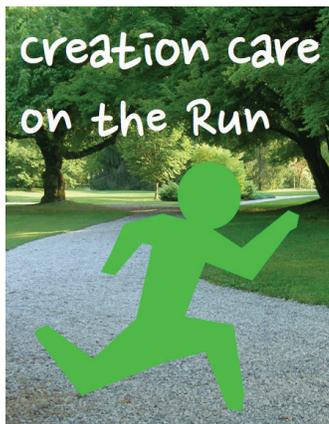
(Quotes from JohnMuirQuotes.com)

- Children's book suggestions:

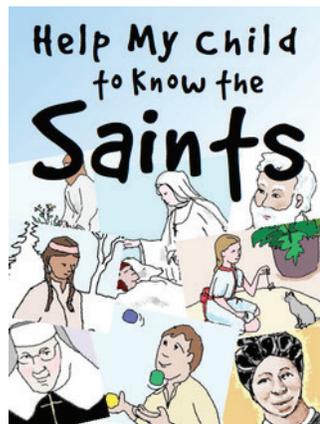
The Sierra Club has a long list of books, including descriptions, grade level, etc. See:

http://vault.sierraclub.org/john_muir_exhibit/bibliographic_resources/john_muir_bibliography/childrens_books.aspx

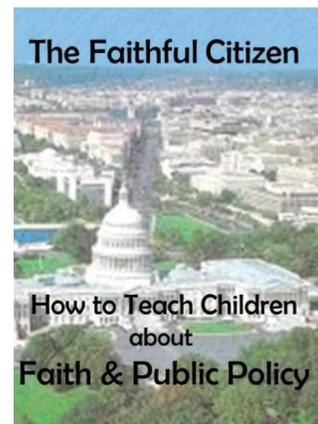
Find more resources for teaching children
how to care for our common home at
CreationCareKids.com



Handouts for Busy Parents



Creation Care Saint Stories



Help Kids Take Action