

Developing Christian Character Through Gardening

A Unit Study by Dana Hanley @ www.roscommonacres.com

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When Jesus taught, he often used object lessons drawn from the everyday experiences of His audience: drawing water from a well, making bread, a wedding celebration, the harvest, etc. These experiences were an integral part of the culture of Jesus' day, giving His listeners practical examples of the spiritual principles He was teaching. Today, however, even such simple tasks as making bread or sowing seeds can be as foreign to children as the spiritual lessons they were intended to illustrate.

This unit focuses on how Christian character is developed through studying the parable of the sower. Children are given an opportunity to help plant a garden and tend it through the harvest, while the parent takes time to draw spiritual applications from the work being done, "here a little, there a little." (Isaiah 28:10) Although the foundation of this lesson rests on the parable of the sower found in Mark chapter 4, take some time before each session in the garden to reflect on what you will be doing and an appropriate verse to guide your children toward a more spiritual discussion.

Scripture

He that hath ears to hear, let him hear.

--Mark 4:9 (KJV)

Study for this unit focuses on Mark 4:3-20, The Parable of the Sower. The study begins concrete in order to build knowledge and vocabulary while leading slowly into the abstract, including Jesus' message in this well-known parable. The first half of the study will tie in closely with science as you and your child discover how seeds grow. The first five days focus on understanding the literal meaning of the parable, with a break taken to really gain a practical understanding of how seeds are sown and how we protect them until the harvest.

1. Look at the artwork and talk (discussed later) and talk about what the subject is doing. This is how a field was sown for generations before tractors were invented.
2. Begin reading Mark 4:3-4. Talk about what happened to the seeds and how they could be protected from this fate.
3. Read Mark 4:5-6. Talk about what happened to the seeds and how they could be protected from this fate.
4. Read Mark 4:7. Talk about what happened to the seeds. Why were they able to produce so much fruit?

Take a break here. Give your child plenty of practical, hands on experience with these concepts through the demonstration activity in the science lesson and the building/planting project in the reading lesson. Allow your child to really get a grasp of the concrete ideas in this passage so that the interpretation may be more meaningful. Each part of the discussion you have with your child will later be relevant as you discuss ways to prepare and guard the heart as the fertile soil for the seed of God's Word. When this is accomplished, begin to transition to the abstract and be ready to apply the themes to all the activities in all subject areas.

1. Compare Mark 4:3-4 to Mark 4:15. Discuss its application in your life, your child's life and any other events you know of. What does this look like in a person's life?
2. Compare Mark 4:5-6 to Mark 4:16-17. Discuss.
3. Compare Mark 4:7 to Mark 4:18-19. Discuss.
4. Compare Mark 4:8 to Mark 4:20. Discuss. What kind of fruit do these people bear?
5. Begin talking about how to prepare the heart as fertile soil for God's Word. This is actually a lifelong pursuit as we strive to be more like Him. The culminating activity will draw heavily from these discussion and ideas.

Art

And I have filled him with the spirit of God, in wisdom, and in understanding, and in knowledge, and in all manner of workmanship.

--Exodus 31:3, KJV

I have always found it interesting that the first mention of the indwelling of the Holy Spirit was in conjunction with craftsmen working on artwork for the tabernacle. This forms the foundation of our study of art as we look at the lives and works of various artists, and judge what is glorifying Him, what is good and what is beautiful and what is glorifying that which is base and against God. As you work through this unit, take some time to look at each of these artists, their work and spend some time comparing different interpretations of "The Sower." Much more information can be found on each of these artists and many others if you and your child are interested in a more in depth study.



[Albrecht Dürer](#) was considered one of the greatest artists of the Northern Renaissance and gained fame early in his life because of his exceptional talents. He was a prolific artist, with recognized accomplishments including altarpieces and other religious works, portraits, self-portraits and copper engravings.



Raised a peasant, [Jean Fran çois Millet](#) naturally displayed an interest in the peasant life as a theme in his artwork. He was distrusted in hi day for alleged socialist leanings, although it is unclear whether he actually shared such views. Still, the body of his work gives us a glimpse into the life of "the common man" in his day. His work is widely studied and recognized, with his subjects reappearing in other works.

Several other artists' interpretations of the sower (as well as larger versions of the two works above) may be viewed at [Biblical Art on the Web](#).

Geography

Who covereth the heaven with clouds, Who prepareth rain for teh earth, Who maketh grass to grow upon the mountains.

--Psalm 147:8

The physical geography of the United States is made up of several climate zones and a variety of land features, including tall mountain peaks, deserts, plains, swamplands, river and lake systems and even tundra and volcanic islands. These features support an immense diversity of plant and animal life, some of which can only be found in isolated parts of the country.

When horticulturalists are planning a garden, they make special consideration of their climate zone and other land features. Before choosing plants for the backyard garden, you must know several things. Research the answers to the following questions together with your child. Your local garden store or a more experienced gardener is an excellent source for all the knowledge you need to know about growing plants in your area.

1. What is the soil like in your area? Is there a lot of clay? Sand? Rich loam? What is the pH?
2. What are the daily high and low temperatures like during the growing season?
3. When can you expect the last frost of the winter? The first frost of spring?
4. What is the average rainfall?
5. What kinds of pests will you likely encounter?

Map Skills

Map reading is an important skill. It is needed to plan a trip, locate your position and find the best route when lost, giving directions, learning about new places and even for planning a garden. It is shocking how little our young people know about nation's geography and the geography of the world. This can be overcome by taking the opportunity to regularly and systematically study maps to locate places mentioned in a

book, to compare topographical features of areas and to show children where they are on the map in a mall or in a rest stop.

Maps have five key parts: the title, the compass rose, the legend, the scale and the neatline (or border of the map). There are also several kinds of maps, including climate maps, resource maps, physical maps, elevation maps, political maps, road maps and topographic maps.

Find a good political map of the United States. Help your child identify the parts of the map and discuss the purpose of each part. Locate different places on the map, including your state, city and the location of friends and relatives. What information can be gleaned about these areas just from looking at this map? Use the scale and a piece of yarn to estimate distances between different places on the map. Help your child determine the purpose of a political map and thereby the types of information that can be found on one.

Comparing Maps

Studying geography with children often focuses on the lowest level of Bloom's Taxonomy. Students are taught to label, identify and recite. All of these are necessary skills, but higher order reasoning is necessary as well. Comparing maps provides an excellent opportunity to help your child develop their reasoning skills. For this unit, you will need three maps for comparison: a political map, a weather map and a map of [growth zones](#). [AccuWeather](#) provides a variety of weather maps, including temperature and precipitation projections. Ask your child to compare the different zones between maps. The fronts, temperature differences and precipitation differences all tend to occur along similar lines to the different growth zones for plants. Help your child reason why this is so and how the growth zones might have been originally determined.

Use the information you gather to determine when it is safe to plant the seeds you have selected. Ask your child what areas of the country can plant sooner and later and discuss possible reasons why this is so. Mark your planting dates on a calendar together.

Mathematics

Thou shalt not have in thine house divers measures, a great and a small.
--Deuteronomy 25:14 (KJV)

Diverse measures lead to inconsistencies and inaccuracies. At the least, careless measuring results in recipes which do not turn out right or projects that do not fit together right. At the worst, it can be a method for stealing or showing favoritism by selling using different standards.

Accurate measurement is important in planning a garden, as well. Practice using a ruler, a yard stick and measuring tape together in the house. Look over instructions for the project you intend to work on with your child and determine what skills s/he will need to complete it successfully.

Even following the planting instructions on the back of a seed packet will require measuring accurately, but you could also take time to make a [raised garden bed](#), or a [window box](#).

Reading

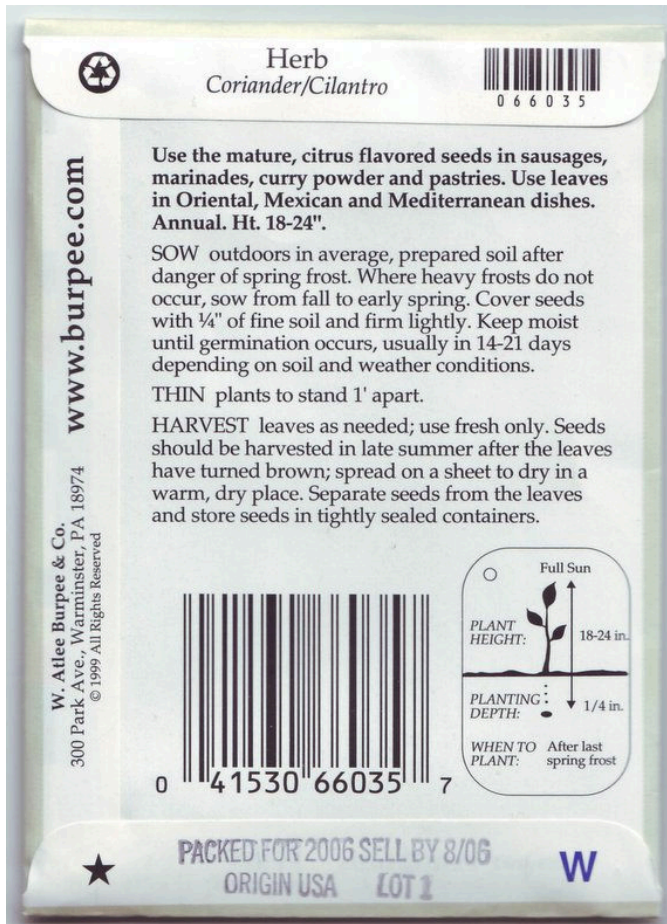
And he took the book of the covenant, and read in the audience of the people; and they said, All that the Lord hath said will we do, and be obedient.

--Exodus 24:7

All texts are written for a purpose. The three main purposes are to inform, to persuade or to entertain. Oftentimes, the purpose of a text can be deduced by looking at the cover, the title and other features such as a table of contents and the presence of an index. If the purpose is to inform, the author usually provides text features which make it easy to find information quickly, such as charts and graphs, indices, a table of contents and chapter headings and subheadings. If the purpose is to persuade, the author will somewhere make a plea or a call to action. With the current trend toward "edutainment," it is becoming increasingly difficult for children to differentiate between informational and entertainment texts. It is therefore important to select texts wisely when first introducing these concepts.

Text One: The Seed Packet

The back of a seed packet has a good example of an informational text. It has a specific structure designed to present the necessary information about the plant and how to care for it.



The top identifies the plant.

A brief description follows.

The author provides information on planting the seeds.

Notes on care are provided.

Instructions on how and when to use the plant are provided.

Often, there is a graphic summarizing important information.

A date is printed somewhere on the package to assure freshness. Information about the company is also provided.

Activities

These are not meant to be done in a single day, but rather over the course of the study.

Obtain several seed packets, preferably of plants you plan to actually sow. Begin by asking your child what the purpose of the text is. Discuss how you can tell it is an informational text. What kind of information is presented? Discuss how the information is organized to make it easy to get the needed information quickly.

Read the packet or have your child read it. Identify each part of the text, including the title, description, planting instructions, care instructions, usage, the freshness date, and the company information. My seven year old was able to deduce the purpose of each section of text after I read from several packets for comparison.

Compare different seed packets. Look at packets from different companies. Each packet is laid out a little differently, but the same kind of information is provided. Have your child note similarities and differences. Also look at seeds from plants of varying usages, such as ornamental flowers, herbs, vegetables and flowers ideal for cutting.

If the seed packet indicates a website, visit it with your child. Discuss how the information is organized to make it easier to obtain the information you are looking for. Find information about the plant you selected. What different information is provided on the website? Why wasn't it included on the seed packet?

Have your child sort the packets. There are several ways to group plants. They can alphabetize them for ease of finding a specific packet later. They can group fruits, vegetables and flowers. They can group them according to some aspect of their care. Have them practice sorting the packets by different characteristics and discuss what the purpose would be of the different ways to sort them.

Cut out labels for each feature of this type of text. Have your child tape the labels next to the appropriate section to gain familiarity with this type of text structure. This will be particularly helpful for the writing assignment at the end of this study.

Have your child follow the instructions to plant the seeds.

Text Two: Instruction Set

For our study, my family is constructing a raised garden. The directions we used may be found [here](#). This may not be in everyone's ability or interest to do. However, there are

several similar, smaller projects you can complete with your children that will have the same benefits.

[Here](#) you can find instructions for building your own window box.

[Here](#) are some ideas for making your own container garden.

Analyze the text you choose in a similar fashion to the seed packet. Guide your child through questioning to note the similarities in structure. Almost all instructional texts include these basic elements: a description of the finished product, materials necessary for completion, step-by-step instructions and some additional information or a listing of resources for more information. It is not intended to analyze this set of instructions as in-depth as the seed packet. The goal is to help your child recognize those features common across instructional texts.

Help your child think of other instructional texts s/he is familiar with. Recipes, game instructions and directions on a test are all examples.

Ask your child why s/he thinks all of these types of texts include similar information. What would happen if different parts were left out?

Science

For the earth bringeth forth fruit of herself; first the blade, then the ear, after that the full corn in the ear.

--Mark 4:28

Following are some simple activities to allow your children to see some of the unseen processes your plants undergo as they germinate and grow.

How does a seed grow?

Demonstration Activity

Materials:

Plastic bag

Dried beans

Napkins or paper towels

Small amount of water

Procedure:

Moisten napkin.

Place in plastic bag.

Place 3-4 beans on the moist napkin.

Observe over several days. The bean should germinate within a few days and your child can observe the developing root, stem and first leaves. Several may be started to use in later experiments.

How do weeds choke out a plant?

Weeds compete for water and nutrients found in the soil. They tend to grow quickly and can even shade out slower growing garden plants. Some plants use allelopathy to protect themselves from intrusive neighbors. This is a chemical process which keeps other plants from growing too close. From Sciencemadesimple.com:

There are several ways in which an allelopathic plant can release its protective chemicals:

- Volatilization - Allelopathic trees release a chemical in the form of a gas through small openings in their leaves. Other plants absorb the toxic chemical and die.
- Leaching - Some plants store protective chemicals in the leaves they drop. When the leaves fall to the ground, they decompose, giving off chemicals that protect the plant.
- Exudation - Some plants release defensive chemicals into the soil through their roots. Those chemicals are absorbed by the roots of other nearby plants, which are damaged.

Check experiment number three in the above link to demonstrate this process to your children.

How do plants get water from their roots to their leaves?

Read and discuss Psalm 147:8. [This site](#) has a good overview of the water cycle, complete with coloring pages for your child. It does have one small reference to evolution. Enjoy the process God created in order to provide for all his creation! [This coloring sheet](#) summarizes the basic water cycle.

The water cycle can also be demonstrated through a simple activity in your home. All you need is a houseplant, a plastic bag and a rubber band.

Place the plastic bag around a leafy portion of the plant and close using the rubber band. Be careful not to damage the plant (it doesn't need to be tight). Leave overnight.

Within a day or two, you will notice droplets of water beginning to form on the inside of the plastic bag...your own miniature cloud. Why? The plants roots absorb moisture from the soil and carry it to the leaves through the stalk and stems. Small holes in the leaves, called stomata, release small amounts of moisture along with other byproducts of photosynthesis. The process is called [transpiration](#). It is a necessary process to replace water used during photosynthesis and to supply other minerals from the soil that the plant needs. When the rate of transpiration is faster than what can be replaced by the water in the soil, the stomata close in order to conserve water. Eventually, the plant will wilt.

How important is sunlight to plants?

Every plant has different sunlight needs. Some like bright sun while others like shade. Sunlight gives plants the energy they need to grow through a process called photosynthesis. To show the importance of sunlight to plants, take some of the bean plants you started to grow in different light conditions, including full sun, partial shade and complete darkness. Check on the plants regularly and note differences in growth and appearance. When we did this, the one in the closet turned white but initially grew much faster than the other beans. Some other ideas for teaching about photosynthesis [may be found here](#).

Writing

And the tables were the work of God, and the writing was the writing of God, graven upon the tables.
Exodus 32:16 (KJV)

Students will take notes throughout this unit, as well as write answers to discussion questions which will provide the bulk of the writing for the unit. The final project, however, combines the personal application of the scriptures studied with the form of the seed packets studied.

Reread the Parable of the Sower and look at one of the seed packets. Have your child design his or her own seed packet with directions on how to grow God's Word in your heart.

Suggested Reading

Nonfiction

A Handful of Dirt by Raymond Bial

Watch it Grow for Young Readers by Bullock and James

Container Gardening for Kids by Ellen Tahmage

Gardens from Garbage by Judith F. Handelsman

Buried Treasure; Roots and Tubers by Meredith Sayles Hughes and Tom Hughes

Fiction

Spring Haiku Story selected by George Shannon

Spring Thaw by Steven Schnur

A Tree Is Nice by Janice May Udry

Hidden Stories in Plants by Anne Pellowski

(This book is not at all Christian, but has some interesting activities in it.)