

of those builders so long ago. I loved to watch Matthew's mind chug-a-lug as he met the frustrations of finding "materials" strong enough to withstand the pressures of the continual force. He gave up on the project only after seeing the strength of the force. He placed a rock that was around 15-20 pounds down only to turn around and watch the water propel the rock on down-stream. Well, there was that set back and one of his least desirable setbacks—a snake! He joyously moved back over toward me to join his dad in boat races!

They took styrofoam cups and made boats of all different sizes and shapes to see which ones floated down river the fastest. The children took turns letting them go upstream and catching them downstream. We laughed and laughed as we watched the carefree boats floating away.

No trip to *any* body of water is complete without "skipping rocks." Harold has made skipping rocks the event of events. They gather "likely candidates" and take turn giving it their best shot! I always enjoy watching them more than anything. I just know that my grandchildren will always hear stories about how that *every* time we went to any kind of water, we had to skip rocks—you know those stories that you always hear and now realize are memories which *must* be shared because they are memories that last forever. ☺

Collect Maps...

Travel a lot? You may want to encourage your little ones to collect maps. Our collection actually began as my son was studying history. He wanted to follow the journeys of those we were studying. He kept his maps in his History Timeline Notebook. He and Elisabeth would hunt for maps on the computer encyclopedia and print them off for their notebooks. They marked the travels or the places that they were studying on their maps. They also have a knack for asking for maps as we travel. You can find some great maps at rest stops, service stations, Law Enforcement offices, Chamber of Commerce Offices, or Welcome Centers. If you are setting out on a specific trip, you can find wonderful helps online as well. These could easily develop into a notebook of their own or you could make a section for them in a nature study notebook or a history notebook. So, when your little ones ask "Are we

there yet?" you can teach mapping skills as you ask them to FIND OUT FOR YOU!

Science Center...

There is something within a child that wants to explore! Because of this, we have set aside areas within our home that are available for our children to pursue learning on their own. We have several computers, art supplies, music CD's, a game area, a children's library...so on. The children love their science supplies. We have several wonderful idea books that have experiments that can be done within the home with supplies readily found around the house. The children love to do these occasionally during their free time. Just having these resources available helps to give the children options that are truly productive during their free time.

Invest in a Good Magnifying Glass!

If you are to become an official nature study queen, then you must invest in a good magnifying glass! There are so many details that are too tiny to see with the bare eye. Anything from an extra pair of eyes, funny shaped feet, little details of colors that are not seen except close up, and funny actions that you would not want to miss.

Current Events...

Somewhere in your nature notebook be sure to tuck away a spot to keep up with the current events related to nature. We recently had a strange occurrence in our area as we were overtaken with Cicadas, an insect similar to locusts. These strange insects only show up every so many years here in our area. They mate, lay eggs, and die away. Sounds simple huh? Well, they were so noisy that you could hear them inside the house. There were so many that we found them on every plant, tree, on our house...*everywhere!* The most interesting information about these interesting insects came from the older people in our community who remembered this occurrence in their life. As our children clipped the articles during this time, documented their first hand experiences, and collected "specimens" for their collection, they also documented *real* history. Who knows? Maybe they will be the ones explaining these interesting creatures later when they come around again!

Insect Collection...

If your home is anything like my home (in the middle of 5 acres!), you will find *many* insects of all different kinds. If you would like to use this opportunity to teach your children about insects, here are some easy ideas...

You will need the following: a magnifying glass, straight pins, tweezers, box with tight cover (cigar box or candy box...keep moth crystals in the box, changing out every three months to protect your collection from other bugs!), a piece of thick cardboard (fit inside box), and a killing jar. (Pint size will work. Place a paper towel in the bottom with a few drops of cleaning fluid on it...place a piece of cardboard in the jar so that the insect cannot have direct contact with the paper towel. Keep the jar sealed tightly until you find an insect.)

Catch an insect and place into the killing jar for about five minutes. When it is still, take it out with the tweezers. Place on cardboard by sticking the insect in the thorax (very carefully) with a straight pin. For tiny insects, glue it to a corner of a triangular piece of paper. Stick the pin through the piece of paper and place in your display. For a beetle, stick through its right wing with a straight pin. For butterflies and moths, spread their wings as soon as possible. Don't let them dry out. Spread their wings flat on a piece of softwood, one at a time, until all four wings are out straight. Keep them in place by using strips of waxed paper over each wing. Never pin the wings.

Label each of your insects with its common name, Latin name, the date, and where you found it. Keeping your collection sealed carefully will help to preserve your insects until you are ready to study them. Once dried out, handle with care. If you notice that the insect is too dry and brittle, steam for a minute with a steam iron by placing it in a saucer, letting the steam from the iron point at the insect. Another option is to place the insect on a piece of wire screening over a pot of hot water for a few minutes.

Insect Display Cases...

Found insects and need to display them? There are many options for displaying the little specimens from your nature studies! One option is to

keep them in little bottles of rubbing alcohol. The disadvantage of this is that the alcohol will cause discoloration of the insect.

If you would rather preserve the insects in a display case, you can make one easily. Find a large flat box like a nice stationary or candy box. Measure it and cut out a piece of glass to fit over the box. Glue a picture hanger onto the back of the box. Fill the box with cotton and some moth crystals. (helps to protect from other insects) Place the insects carefully onto the cotton, pressing them down so that they will stay in place. Butterflies and moths will need to be mounted while soft and flexible. Put the glass on top, seal it neatly around the edges with tape, and coat the box with enamel paint.

You can buy really nice cases from science supply companies. You can also buy kits for mounting insects in a dish of liquid plastic. These harden to look like ice. They make nice gifts or decorations.

Make an Insect Home!

Find a glass jar. Put some twigs and sand in the jar. Place a small pill bottle with water in the sand. Put leaves in the jar. If the insect you are keeping is a caterpillar, be sure to have plenty of the leaves from where you found the caterpillar. Also use a large jar. (You will giggle over *my* first experience with a caterpillar. I thought ours was dead and just messy...so I cleaned the jar out. *Actually* it was the cocoon that I cleaned out! The poor baby had to make another! In just a few short weeks, we had a moth! What a blessing to watch its life cycle—even if it took TWO cocoons! 😊 A large jar is perfect as the butterfly or moth spreads its wings for the first time!

Want to Keep a Water Insect?

Find a small aquarium. Fill half full of water. Place a few pebbles and weeds for the insects to use as hiding places. Keep out of direct light (or the water will turn green). Once you have prepared the home, you can add any water insect. Caution...you will want to be sure that you cover the top because most of the insects that live in the water can also fly! HUM!

For food, feed them bits of fish. Serve it on a pair of tweezers or hang it on a piece of thread by the water. Any food not eaten in an hour should be taken out so that the water will not be spoiled.

Want to Find Insect Eggs and Cocoons??

During the winter, keep an eye out for twigs and dead leaves, which are the hiding places for insect eggs and cocoons. Remember that if you bring them inside, the temperature within the home is warmer than outside and will hatch quicker. If you want to watch the process more slowly, leave the eggs/cocoons on an outside window ledge so that the cool air will keep them fresh and healthy. If you do bring any eggs or cocoons inside, be sure that they are in a safe container or you may have some *surprises!!*

Make Your Own Family Field Guide!

In a recent issue of the *Lacelle Family Newsletter*, I read about a precious idea that Joan was doing with her children. She was making their own *Family Field Guide* for their yard and neighborhood. The *Family Field Guide* can include pressed specimens or sketches of finds, labels of where found, Latin and common names, related Scripture and family stories! Joan wrote in her newsletter the following...

"One thing we have enjoyed together is creating our own field guide from our backyard and area. We've pressed flowers and drawn some for our guide and then we label what we found and where we found it and sometimes put an appropriate Scripture text by our specimen. One day we came across an empty paper wasp nest and we brought that home and studied it. Our boys took a few pieces of the 'paper' from the hive to put in their field guide. There is nothing to compare with their 'own' field guide. With doing a field guide children learn valuable research skills, practice writing skills, art—they are drawing their entries and learning about nature in their own ways and timing effortlessly. Don't be discouraged if children don't take right off doing Scrapbooks or Field Guides. Ours has been in the works for the last 3 years. There are times the boys work on it a lot and then there are periods where they show little interest. I have learned to let it

develop naturally-however, there are times I encourage them to insert their nature finds into their backyard guide."

This inspired me to focus more closely on *our own backyard!* There are some wonderful jewels right here, just within our arms reach! These lessons do not require much more than encouraging the children to bring the goodies inside...sketch or press them...and look up the information about them! Easy nature studies, huh?

Go Berry Picking!

Summer fun? Oh, nothing tops berry picking! The younger the children, the better! We had blueberry bushes in our own front yard when Matthew was just a toddler. This began the obsession with berry picking! *Every single time* that we went to the car, he would toddle over to the bushes and load his little cheeks full of berries. I can still see that precious little face with stuffed cheeks and his big brown eyes shimmering brighter than the sun! What precious memories!

Well, that was right in our front yard! As we moved to Alabama for Harold to finish college, the apartment life did not afford us opportunities as natural as "back home!" Well, except when we would go home to visit grandparents. My mother always loads the children up with blueberries. She goes to a local blueberry farm to pick hers every year. The Rushtons have several pieces of land with huge, did I say HUGE, blueberry bushes that make Matthew's eyes sparkle and keep him humming all through the year with the delicacies available from fresh blueberries that we put up *just for him!*

If you are blessed enough to have berries available on your land or land close by, make it a date! We have found a local farm to give us our yearly fix of berries. You can pay by the gallon for your berries OR you can pick on halves. You keep half of what you pick. The family with the berries needs the help to keep fruit stands with a plentiful supply...and our family would eat more than we could afford any other way. Oh, the place we go to hasn't weighed the children before and after yet either! Ha!

Make Jelly and Jam!

All those berries simply *beg* for jelly and jam making! My children *love* our jelly and jam making days. They always end with a batch of homemade biscuits to give the first jar a try! Yum-yum! ☺ If this seems far-fetched, just hunt up *The Ball Blue Book* for preserving fruits and vegetables. We also use *Fruit-Jell*, which has "never-fail" recipes! We keep the majority of our jams and jellies for our own use, although several years we have bartered with those unable to make their own delicacies in exchange for the fruit from their yards! Our local fruit stand is bartering this year an exchange of peach jam for peaches. YUM! This is a tradition that pays off all year long!

Make Your Own Sketchbook!

Have a creative child who wants to design a sketchbook? Well, let them make their own. They can use sketch paper...acid free paper...and even lined, writing paper. Covers can be laminated after the child designs their own. The sketchbook can be hole-punched and placed in a 3-ring binder or comb-bound at a local print shop. Make it your very own book!

Write a Book!

It is probably that obsession I have for reading that has fueled on our obsession for writing! ☺ Anything can become a little book! If you want to encourage your young writers, give them a product to make like a booklet or a book. Their book does not have to begin with an assignment. Rather, let it develop naturally BUT be aware of natural writing projects. Books can develop with nature copywork, nature hymns, nature poetry, nature hymn stories, nature art, nature stories, All About... (information about any area of science!), weather book, nutrition, food groups, gardening, seasons...so on. This is endless! My children love to write books much more than fill in the blanks in a workbook. These are projects that they can give as gifts or sell in their own little business. Give it a try with your little ones!

Garden Tea Party...

Want a habit that nourishes your heart, soul, and mind? Begin a habit of daily teatime! As many days as you can, take tea outside! Set up a table with delicacies...your place setting (plate, cup/saucer, and serving trays—we love our china the best!)...fresh or candied flowers scattered on the table or fresh in a vase! In the winter, I love going out on the deck in a quilt with a steamy cup of coffee while I pray to the Lord.

Sugar Flowers...

Why not add a touch of beauty at your dinner table? Make sugar flowers. Pick tiny flowers along your nature walk. Wash them well. Dip each gently into an egg white that is beaten until foamy. Drain the excess. Sprinkle the flowers with granulated sugar. Place on waxed paper to dry.

For candied violets, bring $\frac{1}{2}$ cup of granulated sugar and 2 tablespoons of water to a boil in a saucepan. Boil stirring occasionally till it forms a light syrup. Allow to cool. Dip each flower into syrup. Shake off the excess. Lay out on waxed paper to dry. Use a toothpick to straighten any petals that may be folded. Sprinkle flowers with granulated sugar. When dry, store in a tin until needed.

Stained Glass Windows...

Recently we ran across some gorgeous craft kits for making stained glass windows. These are not the cheap looking ones. These are kits that you could use for doors on cabinets...windows...etc. You can find them at most hobby shops or in the craft section of Walmart. I found a gorgeous kit with a teapot and teacups at our Hobby Lobby! Many of these kits would be great to make a seasonal project or you can find several with a nature theme. These make great gifts too!

Seasonal Lanterns....

Want a fun craft project to kick off the season? Make lanterns! All you need is colored paper with cut out shapes for the season...wax paper with pressed nature objects...or painted on parchment paper or white paper.

Once designed...glue ends together making paper into a cylinder...make a handle to carry it with. Sit around an electric light so that the light shines through the paper illuminating the cut outs, pressed objects or painted designs. Enjoy!

Nature Ramble...

This idea was one that we got from Cub Scouting. When Matthew was a Webelo, Harold and I were den leaders. We took the children on "nature rambles" to work off their energy while learning more about nature. A ramble is a short hike. It can be right around the corner or at the park or around the yard. It is meant to be a quick interlude for the purpose of getting the children outdoors to see nature up close each day. Give them a nature guide and ask them to find something new to look up. Ask them to figure out why something grows where it is growing...the purpose of that treasure...what it eats...what the buds become...so on. Just sit back and watch them learn!

Go to the Ant...

"Go to the ant, thou sluggard; consider her ways, and be wise: which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest. How long wilt thou sleep, O sluggard? When wilt thou arise out of thy sleep?" Proverbs 6: 6-9

Get outside to *hunt* for a colony of ants! If you have difficulties, try this. Get a slice of bread. Mix one cup of water with 2 teaspoons of sugar. Cut bread into tiny bits that can be carried by ants and soak in sugar water for a few seconds. Take your bits of bread outside. Place it in different spots around the yard. Keep a watch to see how long it takes before the ants find the delicacies. Watch to see how long until they carry off the bread. Can you tell where they are taking it? Can you find their nests?

Tell the children to be **REAL** attentive to look at what they are doing...where they are going...how they work together...their qualities. Then, hunt a great book about ants to study *what* they are doing and *why* they are doing it! Fun! Isn't God's Word so neat?

Speaking of Ants...Make an Ant Farm!

Want to watch ants up close?? Keep them as pets! For an ant farm, you will need a quart or gallon size jar...a small can to fit inside the jar...a jar lid or a small, flat dish. Put the can inside the jar, leaving space for the dirt. Fill the jar about half-full of slightly moist, sandy soil. Place the jar lid on top of the can.

Find an anthill or ant nest under some rocks. Stir it up with a stick *being careful not to stir up fire ants or any stinging ants!* Collect the ants in a large-mouth bottle or jar and screw on the lid. Keep digging until you find the queen ant. She is larger than the rest and will show up as you dig. The other ants will dig tunnels and work, but will die within a few weeks without the queen. All life centers around her. She also lays eggs. To find her, just put the dirt on a white paper or cloth. Guide her into a second bottle. You may want to place them in the refrigerator for an hour. That will slow them down so you can transfer them into their new home.

Scoop up some of the soil from the ant nest to put in your ant farm on top of the soil. Fill the jar up to the can with soil. Place a dish or jar lid on top of the can and fill with water. Put a dark piece of paper around the outside of the jar...ants like the dark. It may take the ants a few days to settle down. They will make their tunnels close to the glass. You will need to cover the top of the jar with screening or cheesecloth...place the jar on a block of wood in a pan of water so that the ants cannot escape...and keep the jar in a warm place (not direct sunlight). The soil may get dry, but it can be moistened with an eyedropper.

Ants will like many different kinds of food. Drop it on top of the soil. Try bread, cake, seeds, bits of meat, honey, sugar, jelly, plant juices, small bits of vegetables, dead insects, fungi...think outside *and* picnic crumbs! When feeding the ants, clean out any old crumbs before adding more. The children will enjoy watching them eat. If the eating time is regular, see how long it takes them to learn the feeding time. Other things to notice...take a few of the ants out of the nest for a few days. Put them back and see what happens. Also, introduce new ants from outside and watch what happens.

Going Swimming?

Make a water scope! All you need is a large can...rubber bands...heavy clear plastic wrap. Help remove the top and bottom of the can and smooth any sharp edges with a hammer and then by taping with heavy tape. Cut a piece of plastic wrap that fits over the end of the can with 2 inches overlapping on the sides. Secure with rubber bands. Kneel on the edge of a pond or stream or creek. Put the covered end into the water and look through the open end. What do you see? What can you find? A typical pond is usually full of little creatures. They can include garter snakes, worms, minnows, fisher spiders, sunfish, frogs, tadpoles, turtles, salamanders, clams, crayfish, insects (like water bugs, water boatmen, water striders, dragonfly nymphs, mosquito and other insect larvae)...plus water plants! The children will have fun with this one while making some new friends!

Pressing Flowers!

One of my favorite pastimes is collecting beautiful wildflowers as we walk. I usually carry a basket along to gently lay the flower in as go along. If you were further away from home, you might want to carry a flower press, large book to press the flowers or at least a plastic bag to place the flower in. If you carry a plastic bag, you can blow air to form a "balloon" of air to preserve the flowers until you get home. When we get home, I immediately press my flowers to save for later.

If you do not have access to wildflowers on your walk, you can grow some wonderful flowers in your home or right outside your front door. Pansies, geraniums, impatiens, hollyhocks, larkspurs, daisies, roses, and violets make gorgeous pressed flowers. You might could go to a relative or neighbor's house to pick some of her nasturtiums, Queen Anne's Lace, Dogwoods, Mockorange Blossoms, Morning Glories and so on! What a treat those will be because they came from a dear loved one!

All you do is place the flowers gently (lay as you want them to appear once they are dried) in a large, heavy book. We place our flowers in between wax paper so that the pages of our books are not spoiled. Close the book carefully so they press nicely. Press the book firmly to flatten the flower. Leave a few pages in between flowers being pressed. We place our book at

the bottom of a stack of other books while the flower dries. It only takes about a week-two weeks for flowers to dry.

Dried Flowers can be used to make many pretty projects like pictures, cards, bookmarks, place cards, place mats, and so on. You can do this by using a dab of white glue on the back of the petals, stems, and leaves before placing them where you want them. Flowers look nice when combined with tiny ferns, leaves, ivy, herbs, etc. Just a little Bible verse with pressed flowers makes a nice, lovely gift!

Pressed Flower Picture...

Continuing the ideas from above, this is a nice gift or touch to the home. All that is needed is a frame of your choice, paper for background, glue and flowers/leaves. Cut your background paper in the shape of the frame. Place the flowers on the paper to get an idea of how you want it to look. Once arranged, glue the flowers into place. Once the glue dries, put the picture in the frame. Fasten the picture frame and enjoy!

Pressed Flower Bookmark...

Decide on the color of heavy card-stock paper that you will want to use. Cut the paper the size you wish—possibly $1\frac{1}{2}$ by 5. Arrange flowers and leaves as you would like. Add any verses or poems that you would like to use. Glue flowers and leaves in place. Allow to dry. Use a piece of netting or lace slightly smaller than the bookmark. Carefully place on the bookmark gluing all four edges into place. Cover the raw edges by gluing a piece of narrow ribbon around the edges of the bookmark. Punch a hole in the top or bottom center to tie a piece of ribbon or tassel for decoration. Note-cards could be made the same way.

Another alternative for an easy bookmark is to find ribbon that matches your flowers nicely. Use $1\frac{1}{2}$ inches wide by 15 inches in length. Glue the flowers on.

There are also bookmark blanks that you can find available at craft stores. They are a little more expensive than other options, but they are fast and easy! 😊

Pressed Flower Greeting Card...

The card is easy to make. Use the same ideas as above. The only difference is that you may want to cut a piece of paper tissue to protect the pressed flowers in the envelope.

Pressed Flower Scrapbook...

This project can use many of the same ideas from other pressed flower projects. You can use a small journal or a photo album or a small scrapbook or a three-ring binder.

For the binder, press the flowers until dry. Arrange on card stock paper as desired. Write any Scripture Verses, poems, quotes, hymns that relate...include names (common and Latin), date when found, place where found. Slide carefully into a plastic sleeve protector.

Spatter Painting...

Want to make a nice seasonal picture? Gather leaves, seeds, flowers, twigs. Glue to a large sheet of sketch paper. Take a toothbrush dabbed in paint that compliments the seasonal color, splatter all over picture. Add a Scripture on a piece of coordinating piece of paper in the middle of the picture. Once dry, frame or just hang by seasonal table. This would make a gorgeous gift.

What About a Family Service Project?

Why wait for a scout or church service project? Do a family service project! Plant trees or clean the yard for an elderly or shut in neighbor. Pick up litter. The list is endless! What a wonderful way to teach service while ministering to your community.

Make Nature People...

Yes, you read correctly! Make little dolls with nature specimens. Use nuts, flowers, rocks, sticks, whatever. Just hot glue together. Add any

matching ribbon or babies' breath. These would make cute crafts for your little artists.

Listen to the Heartbeat of a Tree...

Yes! You read right! Trees live...breath...grow...rest...and have a circulatory system! Yes, you can even hear its heartbeat! The best time is in the spring as the first sap goes upward from the roots to the branches getting ready for another season of growth. Choose a tree that is at least 6 inches in diameter and has thin bark. Deciduous trees are the best. (those that lose their leaves in the fall) Some species have a louder heartbeat than others do. Use a stethoscope pressed against the tree to listen. You may have to move it to different spots to hear it better. Fun and the children will love this (probably your husband too!)

Begin a Family Reading Program!

Needing ideas for encouraging your children to read more? Begin a family reading program! We usually set goals for reading. As our children meet their goals, we have a set reward to work toward. Just last night, my daughter completed her first "big" book. She asked for the family to go out for ice cream! ☺ We have done little goodies like this and we have also worked with other homeschooling friends to have a pizza day. Last summer we had a reading program for each child that earned a day at Chuck E. Cheese. We used the coupons that get free tokens if you buy a pizza. The children played and moms got to visit! What a treat!

Seed Collection...

Little ones love little goodies. Seeds are fun for them to collect. They can learn counting while learning classification and grouping skills. They can group seeds by colors, shapes, sizes, and uses. They can find seeds anywhere—at home, on hikes, from relatives and friends.

They can store their seeds in many ways. They can use pill bottles, plastic coin tubes, plastic boxes, egg cartons, tins. If they are old enough to classify the seeds that they have collected, label each jar or box with the name using sticky labels. For really large seeds (pinecones, walnuts, pecans,

brazil nuts, peanuts...), you can tag with a string and label. Display seeds by wiring to a large piece of cardboard or plywood.

For extras, your children might want to swap with friends and relatives who have different varieties around about them. This adds variety and lots of fun!

Go Tracking!

Deck out the little ones in buckskin and fill their "possible pouches" with FOOD! Tracking is so much FUN! If you want to make plaster casts of the tracks you find, they are real easy. You will need plaster/water...a strip of cardboard 1 $\frac{1}{2}$ inches wide or a strip from paper cup or quart milk carton...paper clip...empty can for mixing plaster...stick or spoon for stirring.

Hunt for tracks at the best spots...streams, muddy banks, or beaches. Once you find some, brush away all twigs, rocks, or dirt around the track...CAREFULLY. Surround the track with a piece of cardboard circled around the track and fastened with a paper clip. Push the cardboard deep into the mud. Put about a cup of water in the can and pour dry plaster into the water. Stir until the mixture is smooth and thick.. Pour the plaster slowly side to side over the track. Give time for the plaster to push the air out so you won't have any air bubbles. Let set for 15 minutes. While the plaster is still damp, scratch the date, place, and name of animal.

You may want to sketch tracks in your nature notebook. If you are not sure which animal left its tracks, just look at a guide book or a resource like *Let's Look at Tracks* or *Let's Look at More Tracks* both by Ann Kirn.

Midnight Visitors...Catch Those Footprints!

Want to see if any animals visit your yard at night? Gather a large cookie sheet or flat cardboard box with sides only about 1 inch high...sand, dirt, or flour...cookie, peanut butter cracker, or other food that an animal might like. Spread dirt out onto cookie sheet or cardboard box. Make it wet enough that if you made a handprint it would remain in it. Put food in the middle. Leave out overnight. In the morning, check too see if the food is gone and if

any tracks are left. The tracks may be in the box or around it. If there are tracks, try to find which animal visited you.

Take a Night Hike!

One really interesting alternative for a nature walk is to choose a trail that is well-traveled and go at night. Everything looks completely different during the night. Sounds, sights, smells are completely different. The night sky is simply fantastic! Carry a flashlight in case you need it, but don't use it for the walk. Let your eyes adjust so that you see what is happening in the dark! The children will love it!

Model Spaceship!

We are blessed to live in North Alabama only a little over an hour away from *The Space and Rocket Center!* Whether you live this close or far away from a space center, your little ones will love building their own replicas. Any supplies from around the house will do. If they would like information about the different spacecraft or expeditions, they can find lots of wonderful resources in the non-fiction section of the children's books in your local library. My husband has some wonderful materials that NASA sent him when he was a child. All you have to do to receive some wonderful materials (posters, books, etc) about the different space voyages is to check online or contact NASA by mail. We have encouraged our children to do their own research on these topics because it prepares them for further research when they are older while helping them to learn how to access help when they are searching out their own questions! Beware! This study could take a while! 😊

Stamp Collection!

This idea is *completely* child-directed in our home. My daughter began to notice the unique stamps on the mail sent in to our ministry from around the world. She decided to begin to collect the postmark and stamps into a notebook of her own. Many of the stamps are with a nature theme. Her favorites are from Japan and Brazil! (*I guess that you know who you are!*)

Just the other day, we went to our post office to mail some packages. They had some of the most gorgeous stamps with Artic animals on them. We bought a sheet for each of our children to collect. Then, we headed to the library where they hunted down books about those precious animals! Learning never ends!

Collect Post Cards...

This actually continues from the last idea! My children always beg for any postcards sent to us from far away. We always wondered what Canada really looked like until last year we had several postcards sent from Canada. The children had to show *everyone* the lush beauty. It was such a treat as they pulled out the globe to hunt where Ontario was. ☺

You may take it for granted *where* you live or travel, but the postcards make for wonderful lessons for those far away. Your children may want to write back and forth with penpals, swapping post cards or nature finds that are common to their area. What a rewarding experience!

Go Fishing!

Can you tell by now that we have a story for *everything???* Well, the first time we ever took Elisabeth fishing was *an adventure!* All I can say is that it was more like you would envision "The Stooges Go Fishing!" I had a nice comfy lawn chair and great book in the shade (*Remember I do not "do" bugs, dirt, or heat...much less worms and squirmy fish! EEK!*)...Harold had his top-quality fishing stuff (*Sorry if you are a guy and are looking for details—it all looks the same to me!*)...Matthew was decked out in "fishing clothes" and ready to be filmed for TV...and Elisabeth, all cute in her smocked jumper (back then ALL of her clothes were smocked—even her nighties!) and twig of hair sticking up on her head and enthusiasm for "fishies" that surely would be caught. I think that there are way too many priceless moments with little ones and nature. This was one for me! ☺

Nothing profound here...just humor! Harold had bought Elisabeth her "own" fishing pole. He was determined to make her "well-rounded" by the time she was grown. He showed the little bitty bit of a girl how to "cast" and "reel it in." She was glued to him. He walked on further down the bank

and showed Matthew how to put the worm on his. I was devouring my book but not totally because I was drinking in the moment—you know one of those memory things!

About the time that Harold would get to his own spot, the worm would be gone on their line and he would have to help them again or the line would get caught in bushes. You know those kinds of things that only a Dad has patience for.

The one thing that stands out in my mind is Elisabeth as she would cast out her line! It would end up *ANYWHERE* but the water! She would throw it out and it would go behind her...or nowhere...or to get her brother! That was the funny one! He was minding his own business "fishing" as she cast once and caught him behind the neck on his shirt. She was tugging JUST sure she had a fish. He was squealing. Harold and I were rolling on the ground in laughter! She got better. Learned a lot. OH! And...let's add one thing here...she *was the only one to catch a fish that day!*

Stargaze!

One of our favorite places to go at night when we first married was the spillway. There was a man-made waterway in our area that had a wonderful spillway. On a clear night, it seemed as if you could see every star in the universe! We would take Skittles, soft drinks and spend hours just enjoying! This would be a fun time for your family as well. You could do a constellation hunt...watch a meteor shower...watch a lunar eclipse...hunt planets...or come frequently enough to watch the different phases of the moon. Our children love to go to the spillway when we go to our hometown to visit our relatives. We tell them stories of our childhood while teaching them the wonders of God's creation!

If you would like to plan a certain time for a "Star-gazing" party, plan around a meteor shower! Meteor showers can be seen every year. Check them out...

January 1-3 Eastern sky
April 20-22 NE sky
May 4-6 Eastern sky

August 10-13 NE sky
October 20-23 Eastern sky
November 3-10 NE sky
December 10-12 Eastern sky

**Get in the Sprinkler! (Water Your Grass and
Flowers and EACH OTHER! Water War!)**

Living in the South all my life brings certain things that are musts for a pure-bred Southerner--***SPRINKLERS!*** During the summer, our children *beg* to water the garden or the flowers or the grass or to even wash the car. NOT because they are just purely industrious, but rather because they are mischievous! They take those opportunities to spray one another down and cool off. I love the contagious giggles! I have really enjoyed getting them myself. The best times are when they least expect it! I get outside to water my flowers or herbs and "accidentally" turn toward them when they ask a question...or...! War is declared!

**Design and Begin Your Own Herb Garden!
(Make your own teas!)**

This is one of my newest obsessions! Since we live on a wooded lot right on top of Huckleberry Hill, very few things grow well in our soil. The one thing that does beautifully happens to be herbs! We added to our selection this year. My daughter loves to pick the leaves for fresh mint tea! What a treat!

Grow a Vegetable Garden...

Live in the country? Or in an apartment? It does not matter where you live...you can have your own vegetable garden! Even if your child grows one tomato plant or a pepper plant, gardening can take place with little effort and lots of rewards! My husband tilled up the soil this year and allowed my eight year old to plant all the seeds and plants for him. She loved it and hardly knew she was learning life-lessons the whole time!

Go for a Riverboat Ride!

Several years ago my husband carried us to San Antonio, Texas for one of his business trips. Since it was our anniversary, we took a boat ride on the river. It was such a delight to learn native history while enjoying all the natural surroundings for the first time with our children. A couple years later he surprised me on another anniversary. He took me to dinner on a riverboat here in our area. As we ate our dinner, we enjoyed the beauties of the Tennessee River while watching the sun go down! What a memory! 😊

Plan a Scavenger Hunt!

Want to test your children's knowledge of Nature *and* their observation powers?? Try a Scavenger Hunt! Make a list of things to hunt. (like anthill... seed... Oak leaf... Maple leaf... Dandelion... shell... needle from an Evergreen... an insect... fur... an animal home... bird feather... a cocoon... a spider web... animal track... bird's nest... butterfly... so on!) Make a list of around 20-30 items that can be found in the area. Make them common enough that they can find them easily.

Spider Webs...

Spider webs are fascinating! We always have a treat of spiders choosing our front bedroom window to build a web every year. It is an ingenious plan since so many bugs come to the light every evening. It is fun to watch a spider spin a web...but if you would like to save a web for your own collection, it would be fun and easy too. Simply take a black piece of paper...Place the paper in a big cardboard box (to protect the area around it from getting sticky!)...Spray the sheet with hairspray and the web with white spray paint or talcum powder....While the spray is still tacky, stick the paper behind the web and slowly bring the paper towards you until the web is free and attached to the paper. When all is dried, spray with a protective coating. Be sure to note type of spider if known, where found and date found with spider web. This makes a nice collection. If you have as many spiders as we do on our land, your children will have countless opportunities to collect plenty of these!

Hunt for Shells!

Going to the beach anytime soon? Hunt for shells! The best time to find perfect shells is during the low tide. Watch TV or check a local paper to see when the tide is low. The best shells are usually those with live mollusks or snails. Look for shells along the rocky and sandy shores. As you find them, you will need to carefully collect the shells and wrap them in newspaper to keep from chipping or scratching them. If the shells are dull, you can rub them with mineral oil. Shells can be kept easily. Tiny shells store well in tiny bottles...medium shells may fit in matchboxes...and large shells store best in cardboard boxes. An alternative would be to glue shells to a large piece of cardboard with rubber cement or glue the shells to golf tees and press the tees into a piece of styrofoam. Don't forget to label all of your goodies!

How About a Movie Night?

Need a "cuddle-cuddle time" that is totally mindless, yet educational? Try a movie night! We love to have an occasional movie night complete with popcorn, soft drinks, fruit and a great show! Some of our favorites have a nature theme, so they fit great as suggestion for a movie night! Try some of the following...

Anne of Green Gables

Anne of Avonlea

Where the Red Fern Grows

Swiss Family Robinson

Treasure Island

Summer of the Monkeys

The Sound of Music

Tales of Peter Rabbit (Our local library has an entire series of these shows. They are beautiful and will thrill any Beatrix Potter fans in your home!)

Winnie the Pooh

The Velveteen Rabbit

Charlotte's Web

Big Red

Charlie, the Lonesome Cougar

The Legend of Black Thunder Mountain

The Legend of Lobo

Mountain Family Robinson

The Adventures of the Wilderness Family

The Wilderness Family II

Pollyanna

**Westward Ho, the Wagons!
The Wild Country**

We also enjoy many of the nature series that are shown on Discovery and PBS. Many have untruths about evolution and the age of the earth, but our children just ignore those untruths.

Make a Flower Hat...

Have an Elisabeth in your home? Either Elisabeth is making something beautiful or she is making a mess. Guess what I prefer? Mary gave me a wonderful book for Christmas called *The Anne of Green Gables Treasury*. One of the cutest ideas in the book was this one. All you need are a few things to make a Spring Hat...a plain straw hat, 2½ yards of 1½ inch grosgrain or satin ribbon, silk flowers of your preference, hot glue gun, scissors.

Using a hot glue gun (or you can sew!), carefully glue the ribbon around the base of a plain straw hat. Using coordinating silk flowers, hot glue the flowers around the base of the hat. If you prefer, tuck baby's breath in, hot gluing it as well. Cut 2 (18 inch) long pieces of ribbon to glue to the back for streamers. With extra pieces, you may want to make a tiny hat for a baby doll!

Leaf Collections...

Beginning to study nature? My first step into nature study was to study trees. We collected leaves, placed them in big thick books to dry, then mounted them on acid-free paper (using mounting tape used commonly with scrapbooking) and noted the type of tree, where found and date found.

Leaf studies are fun in the fall as the leaves are in their brilliance of colors. The colors helped me to learn the types of trees much easier.

Leaves can be mounted into notebooks, sketchbooks, scrapbooks, pictures, bookmarks, calendars...so on! Let your imagination go!

Seed Fun!

Want to entertain your children while teaching them about how seeds grow? Fill a cup to the top with popcorn kernels. Sit in the middle of a pie pan or a cookie sheet. Add as much water as possible. Let sit for 5-6 hours and then listen for neat noises! The popcorn fills with water, which causes the seed to swell. Soon they absorb so much water that they do not fit in the cup any more. They tumble out of the cup...fall on the cookie sheet. This will help to explain to children how seeds begin to grow.

Another neat idea is to test to see how seeds grow. Take several clear cups. Fill the cups with dirt, but not all the way to the top. Push seeds down along the side of each cup so you can watch them grow. Wrap a piece of black paper around each cup, taping it into place. Keep moist and check the seeds every day to see if it is beginning to sprout. Re-stick the paper. After the seeds sprout and are about $\frac{1}{2}$ inch long, put each cup a different direction. Some on their side, some upside down, some right side up...How do they grow? After a couple of days, turn each cup a different direction. Notice anything? Seeds always grow up...no matter how you plant them or turn them. They know the direction because of gravity! Gravity pulls the roots toward the soil, nutrition and water. The stem grows up so that the plant also grows toward the sun! Neat huh?

Don't forget to let them sketch these findings in the Notebook! There are wonderful non-fiction books that would make great read-alouds to teach more about seeds!

Grow a Dirt Garden!

Seeds can be anywhere—even in dirt! Take a lid to a shoe-box. Place a plastic bag on the bottom. Collect dirt from three different places. Keep soil moist. Wait to see what grows. Keep a watch with a magnifying glass or a microscope. Watch to see how many different things grow! Fun!

Tell Temperature by the Crickets!

Did you know that Crickets can tell the temperature?? They are very sensitive to temperature. If you will listen carefully, you can figure the

temperature without a thermometer just by listening to their chirps and doing a little math! Use a watch with a second hand. Count how many chirps there are in a minute. Subtract 40 from this number. Divide the answer by 4. Add 50 to this number. This is what the temperature is in Fahrenheit. How close are you?

Hum...What Grows on a Piece of Bread?

Try this one on the children! Gather three separate pieces of bread. Only touch one corner of the bread, place immediately in a glass jar. Cover the jar. Dampen the second piece of bread by lightly sprinkling water on it with your fingers. Leave it out for 20 minutes and put it in a second jar. Cover that jar too. Dampen the third piece of bread...rub it with the palms of your hand and also on the kitchen counter. Put it inside a third jar. Cover the jar. Label each jar. Put the jars in a dark closet or in the back of the kitchen cabinet. Check every three days. What happens? Which bread changes the most? Take a closer look with a magnifying glass. Which piece of bread develops the most spores (fuzzy growth) or bacteria (flat, wet growth).

Keep a Weather Chart...

Interested in learning more about the weather? One of the easiest ways is to begin a weather chart. This can be done as a chart in your Nature Notebook. If there is more interest, research more deeply each aspect of weather. This may develop an entire Weather Notebook! To get started just jot down notes about weather a couple times a day such as—weather changes, temperature, rainfall, direction of the wind, humidity, barometric pressure, types of clouds, tide, type of moon, time of sunrise and sunset, any record breakers, overall weather, so on. Each of these factors would make a good area of study for the children to research more fully. For fun, they could watch the news to compare their observations to those of the meteorologist.

Predict the Weather by the Clouds...

Try your hand at predicting the weather. Just get outside and study the types of clouds. Find a book that teaches the different kinds of clouds.

Cirrus are always hand-in-hand with a warm front. Most warm fronts bring rain or snow as the water vapor from the warm front collides with the cold air and condenses. The Nimbostratus are nice, thick clouds that almost completely block the sun. They forecast great weather especially if there is a lot of space between them. Find out about the other clouds and see if you can figure the weather!

Grow a Plant from Pit...

This one is fun! Take an avocado seed (peel off the brown covering)...or sweet potato, oranges, lemons. Just suspend them (fat side down) over a jar of water by poking toothpicks into the side. The roots will grow toward the water. Once it develops leaves and stems, transplant to a planter. This won't produce fruit but it will have a beautiful houseplant!

You can do this with a pineapple top too. Cut top off and allow to dry on its side for 5-7 days. Place it in a shallow pot of moist sand. Bury so that only the leaves show. Place the pot in a warm, sunny location and in about 2-3 months it will be rooted. Replant it into a planter. In a few years, it will actually bear little pineapples!

Make a Travel Book...

Are you going on a family vacation? Traveling with Dad on business? This is the perfect project to keep away the "travel grumbles!" Let the children keep a book about the trip. They can record what they see...keep samples...keep any hand-outs...sketch nature finds...journal the trip...keep a collection of post cards they find at each stop...list tags that they see on the cars along the way...so on. This will make a precious memory book while keeping those little ones busy through the miles!

Collect Sand from Different Beaches...

Did you know that not all sand is alike? It depends upon the different rocks from that area. Collect sand from the different beaches you visit while you travel. Note where found and date. Keep in plastic baggies. Take a good look at it under a magnifying glass or microscope to see the different grains of sand. Try to learn which rocks the particles come from!