



The following are sample pages from each section of the Third Edition Montessori At Home! eBook.

They represent a small fraction of the information in the 512 page eBook, and are not in an ordered sequence other than being in chapter order. The first page of each chapter is included as a guide.

Please explore the links to sites and videos. There are hundreds of these throughout the eBook, representing the best information available to expand on the activities and information presented, and saving you untold hours of research.

Maria Montessori & Early Childhood Education



“The most important period of life is not the age of university studies but the first one, from birth to the age of six. For that is when man’s intelligence itself, his greatest instrument, is being formed.”

Maria Montessori

“Early environments and experiences have an exceptionally strong influence on brain architecture.”

The [Center on the Developing Child](#), Harvard University

Dr. Maria Montessori 1870 - 1952



Today we understand that young children are in their most formative years. We know children learn rapidly from birth to age six, and realize the importance of **early childhood education**. We buy learning toys, download educational iPad apps, visit Mom Blogs for activity ideas, and try to help our children understand their world. Day care is not enough; we want preschool activities for our children.

How did we get here? One woman, **Dr. Maria Montessori**, started it all. Beginning around 1900, she developed a new, radical view of early childhood as the most important period of human development. She gave the world a new understanding of young children and what they need to develop optimally and realize more of their true potential. She created a unique approach to doing this that has been used in over 20,000 **Montessori schools** with great success for over a century. This book will help you use the Montessori approach at home.

Montessori's Observations of Children



In 1900, young children were considered to be cute, sometimes misbehaving little curiosities that were to be mostly seen and not heard. Then **Dr. Maria Montessori** turned her attention to them. Her observations, methods, and materials totally changed the way we look at young children and defined the fields of early childhood development and education for future generations.

Maria Montessori was the first woman to receive a medical degree in Italy's history. She started working with children with learning and other disabilities. Trained as a scientist, Montessori began observing the children to see what she could learn. These children had been written off as unable to learn; but Montessori achieved remarkable

results. Since her methods worked so well, Montessori decided to see how more normally developed children would respond. This was the beginning of her life's work.

Montessori based her approach on her **observations** of children. She started by observing children to understand their natural patterns of growth and development. Let's look at Montessori's major observations. Quotes are from Maria Montessori unless noted.

The Inner Teacher

"We discovered that education is not something which the teacher does, but that it is a natural process which develops spontaneously in the human being."



By age six, children become individuals ready to live in the time, place, and culture of their birth. Young children spontaneously learn to walk, understand and speak their language, think, control their movements, and learn basic life skills at about the same times in their development. Montessori saw that an inner teacher and guide lives in each child, leading development according to a natural pattern. Montessori believed that *trusting the inner teacher* should be the first principle of education. Rather than lead the child, she decided to **'follow the child'**.

Photo: **Julie Josey**

Movement

"Watching a child makes it obvious that the development of his mind comes through his movements."



Montessori observed that young children are constantly moving and *"taking possession of the world with their hands."* She saw that **movement is intimately tied to development** in early childhood. Learning to purposefully control and coordinate movements directly develops a child's brain. Through movement a child acts on the world and makes discoveries. Photo: *Shutterstock*

Independence

“Little children, from the moment they are weaned, are making their way toward independence.”



Montessori observed that young children are highly motivated to become independent and do things for themselves. They eagerly respond to the chance to practice and master life skills. **Children have an inner sense of urgency to become independent, functional people.** They want to learn to use their bodies and minds, do practical life tasks by themselves, learn about numbers and words, and understand their world. All their activities are a reaching out to create people who are prepared to take their place in life. One child famously asked Montessori to **“Help me do it myself.”**

Photo: **Julie Josey**

Absorbent Mind

“Whereas an adult admires their environment a child completely absorbs it. This absorption transforms the child and forms part of his or her soul.”



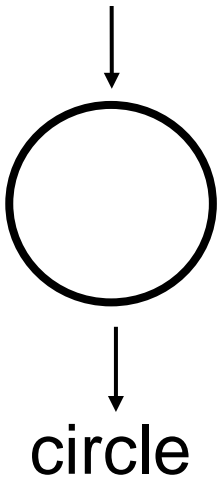
Montessori observed that young children, rather than acquiring information in a logical, linear fashion like adults, absorb inputs from their environment **globally, from all directions at once. Their brains function differently** than at any other time of life. Montessori suggested that when a child is focused on repeating an activity, she is doing the inner work of creating fundamental brain structures that she will use for life. This assertion has been confirmed by modern neuroscience (page 26). A young child’s brain opens new **brain nerve pathways** with stunning speed every second for years. Young children absorb their environment into themselves until they are a fully participating part of it.

Photo: Cleaning at **Discovery Days and Montessori Moments**

“There is in a child a special kind of sensitivity which leads him to absorb everything about him; and it is this work of observing and absorbing that alone enables him to adapt himself to life.”

Concrete Experience

“The hands are the instruments of man’s intelligence. The human hand allows the mind to reveal itself.”



Above: *Progressing from concrete to abstract: circular objects, a graphic image, a word that stimulates thoughts of roundness.*

Photo: **Apple slicing** activity at **Counting Coconuts**

Montessori saw that young children primarily need **concrete** experience - contact with **three dimensional objects**. Real world experience must come first in order for a child to later learn to use **abstract thought** (p. 90). For example, before a child can understand the *concept* of roundness and *visualize* a circle mentally, she must first handle numerous circular **objects** with her hands as she looks at them. The sense impressions need to come first. Once a child has received enough direct sensory impressions of the world, he gradually becomes able to consider objects and ideas in the *abstract* as images, thoughts, and eventually words. This is illustrated at left.

An architect conceives of a design mentally, makes drawings and blueprints, then builds a building. He works from the **abstract to the concrete**. A young child works the other way, from the **concrete to the abstract**.

She handles an object, absorbing its qualities through her senses. Soon, he recognizes the object’s shape in drawings and photos. Finally, she learns to associate the object’s qualities with words. This sequence is especially important as it relates to computers, tablets, and other video screen devices. Montessori saw that children, *“Take possession of the world with their hands.”* She recognized that children

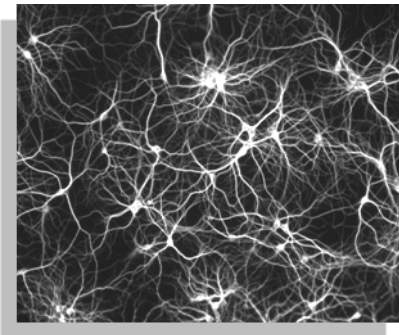
need to explore their world by holding it in their hands. This became the theme of her **Prepared Environment** (page 17).

The Neuroscience of Early Childhood



Much has been learned about children since Montessori developed the approach she called a “*Help to life*”. Of special interest to parents are the advancements in understanding what is happening in our children’s **brains** as they grow.

Early childhood is a unique period of brain development. At birth, your child had around one billion neurons, or nerves, in his brain – about the number of stars in our Milky Way Galaxy. Each brain nerve has many branches that connect with branches on other nerves. The possible nerve connections in a young child’s brain number in the *trillions*.



Nerves transmit electrical impulses. When your child takes in sensory impressions, thinks, moves a muscle, even dreams, new **electrical pathways** between brain nerves are opened. A young child opens as many as **700 new brain nerve pathways every second** during the first six years of life.

The young brain is fluid and changing. As your child gathers experience, brain nerve pathways are strengthened and reinforced. They become ‘superhighways’ for brain activity. Gradually, in the early years of life, these nerve pathways organize into what is called **Brain Architecture** - a network of critical nerve channels inside the brain.

The foundational brain architecture we use for life is formed by six years of age.

Starting around age six, another brain process begins. Nerve pathways that have not been opened and established begin to be *eliminated* in a process called **pruning**. As unused nerve pathways are pruned away, the brain architecture is revealed. Our brains retain a good deal of **plasticity**, the ability to change and adapt, throughout our lives. **It is only in the first years of life that brain nerve pathways open so freely and rapidly.** The brain architecture we use for the rest of our lives is largely in place by the time the pruning process begins around age six. We have just a few golden years in which to help our children develop the best possible brain architecture for life.

Executive level brain functions refer to higher level activities like:

- Focusing attention and filtering out distractions
- Controlling our impulses
- Making decisions
- Planning and revising plans as needed ‘on the fly’
- Multitasking

The executive functions are the brain’s ‘air traffic control system’. They allow us to operate in our complex, busy world. As with brain architecture, the early years are especially critical for the formation of these brain capabilities. Early learning activities teach children these important brain skills.



Little House Montessori

Between the ages of three and six a lot of **rewiring** occurs in the brain. This is especially prominent in the areas involved with **organizing, planning, and focusing attention. These are three of the prominent features of Montessori activities.**

Montessori activities engage a child’s **movements, attention, will, and sensory awareness.** This creates optimal conditions for the development of strong, efficient brain architecture. Combined with the

development of executive level brain functions, these are among the primary benefits of Montessori and other well-designed early learning activities. Children who have access to these experiences develop more efficient, capable brain architecture.

...“the quality of a child’s early environment and the availability of appropriate experiences at the right stages of development are crucial in determining the strength or weakness of the brain’s architecture.”

“The exceptionally strong influence of early experience on brain architecture makes the early years of life a period of both great opportunity and great vulnerability for brain development.”

The **Center on the Developing Child**, Harvard University

Using Montessori Principles in Parenting



“The child’s parents are not his makers but his guardians.”
“No adult can bear a child’s burden or grow up in his stead.”
“Of all things love is the most potent.”

Maria Montessori

Photo: [MontessoriMOMents](#)

Montessori is first an **attitude of respect** for the young child as a person engaged in the most important task of life: creating a unique individual ready to take their place in the world. Starting with this understanding, you can do many things to help your child in that process. As a parent, it is important to first understand and implement the basics of Montessori before you make or buy learning materials. These concepts and practices are the real core of Montessori.

We want the best for our children but often don't know specifically how to help them. We buy as many toys as we can afford and hope for the best. We read a book or blog and try a few things. This is where the Montessori approach can be very helpful. Montessori gives you **specific actions you can take in an organized way every day** to help your child realize more of his true potential. This chapter will explore steps to get you started today using the Montessori approach at home.

Trust & respect your child's Inner Teacher

Photo: [1+1+1=1](#)

Using Montessori principles at home, we do not attempt to educate our child in the manner of a traditional school. A 2-6 yr. old is not an empty vessel for us to fill with knowledge. Instead, we acknowledge that our child has an **inner guide** that leads her, in only a few years, from the apparent helplessness of infancy to the child we see at six, ready to head out the door and go to school. In just six years, our child has learned our language and can probably read and write at least a bit, knows basic math, has developed muscle control and coordination, can do many things for himself, and

understands how the immediate world around him works. A child accomplishes all this even if adults do not help much. This is the power of the inner teacher all children possess

Encourage Independence



Helping your child master the skills of daily life is one of the most important things you can do. Children have a strong drive to become independent. Learning to do things for themselves encourages responsibility and self-motivation. The value of encouraging independence in a young child cannot be overstated.

Photo: [Tree House Preschool Daycare](#)

The **Practical Life** activities starting on page 111 help children focus attention on and develop specific skills. As a parent **using Montessori principles at home**, you have an advantage over a Montessori school! Your home is where your daily life happens, so it is the perfect place to let your child practice skills and participate actively in your family life. If you make your home a place that supports your child's development of daily life skills and encourage the process, you will see your child blossom.

“We must give the child an environment he can utilize by himself; a little washstand of his own, a bureau with drawers he can open, objects of common use that he can operate, a small bed in which he can sleep at night under an attractive blanket he can fold and spread by himself. We must give him an environment in which he can live and play; then we will see him work all day with his hands and wait impatiently to undress himself and lay himself down on his own bed.”

Maria Montessori

Action Steps

Kitchen & dining areas



Place food and snacks on low shelves and in low drawers in your refrigerator and cabinets so your child can get her own healthy snacks.

Photos: [Counting Coconuts](#)



Use plastic food boxes your child can open. Jars with screw on lids can be used when your child learns how to use them. To help your child learn this skill, see page 138. Yogurt and fruit cups work well. Make snacks ahead of time and place them on the low shelf in the frig. Use pouch type juice containers or pre-poured in cups with lids until your child can pour her own juice. When your child learns to use a knife, he can make peanut butter and jelly sandwiches and cut cheese. Get your child **small kitchen tools** of his own. This will take **practice**, and there will be **mistakes** and **messes**. **Let your child help clean up**. Find a low shelf for utensils, napkins, cups, bowls, and plates so your child can get these items independently. Help your child be involved in mealtimes and do things for himself.

Videos:

[One Mom's home setup](#)

[A 23 month old child gets a snack](#)

[One Mom's kitchen setup](#)

[Kitchen and other ideas from Peaceful Parenting](#)



Photo: [Peaceful Parenting](#)

Your child's bedroom



Put everything possible at your **child's level**: bed, shelves for toys and learning materials, bulletin board, chalkboard, clothing storage, a small table and chair, art prints on the wall, and decorative artistic items. Try not to include a TV. A futon can make a nice floor bed. A comforter makes bed making easy.

Photo: [Mama Liberated](#)



Avoid toy boxes and catch-all drawers. They create disorganization and chaos in your child's room and mind. Parts get lost, and precious time is wasted gathering items to use. Consider setting up low shelves as in the photo. Every toy and learning material does not need to be out all the time. Rotate materials as needed.

Photo: [Family Go Simple](#)

Use bins, sturdy bags with handles, or attractive boxes to hold toys such as Legos and building blocks. These can be placed on the shelves along with other materials.

- Forget the TV. See **Digital Life** (p. 260) for ideas on using technology.
- Hang a **bulletin board** at your child's eye level to pin up your child's drawings, sight words, a calendar, family photos, and other items. A **dry erase board** can be used to post positive messages and reminders.
- Place **fine art prints** on the walls and include a **music player** in your child's room that she can use herself. An **iPod Touch** works well, and also allows the use of children's apps, many of which are recommended in this book. Include decorative sculpture, flowers, and live plants in pots that your child can care for.



Hang an **analog clock** at child's eye level. A clock like this reduces distractions, allows a child to focus on the important elements, and facilitates counting the second and minute marks and reading the numbers. See more about learning to tell time on page 381.



Hang **spice rack book racks** at your child's level. The racks pictured are around **\$4 at Ikea** and make cool book racks.

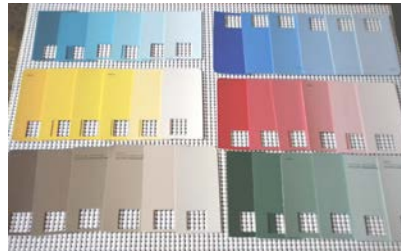
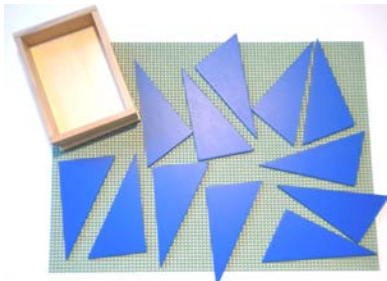
Photo: *Domestic Simplicity*



A coat rack, or coat hangers mounted to the wall at your child's height, makes a handy place to keep coats and hats organized.

- **Label things.** Cut paper into strips and write the names of things in your child's room: learning materials, toys, sock and underwear drawer, closet, mirror, clock, etc., in **block lower case letters** with a black magic marker. Stick them onto the wall, drawers, and other surfaces with **Blu-Tack reusable adhesive**. You could make strips on your computer and print them out. Use Century Gothic or a similar typestyle that matches the **Montessori Sandpaper Sounds**. Read these labels with your child frequently when your child is interested.
- Lower the **hanger rod** in your child's closet to his height.

A Parent's Guide to Using Learning Materials at Home



“That which moves the child to this manifestation of activity is a primitive internal impulse; and it is the impulse to satisfy this hunger which directs the consciousness of the child to the determined object and leads (the child) gradually to a complex and repeated exercise of the intelligence...”

Maria Montessori, *Spontaneous Activity In Education*



Montessori observed that children are self-directed by an Inner Teacher. She decided to **follow the child** and help the Inner Teacher accomplish its work. Rather than an educational method, she called her approach a **“Help to life.”**

Montessori saw that young children have a deep inner need to **hold objects and explore the world with their hands and through their senses.** She created an incredible variety of special materials to help them do this.

Some examples from **Montessori Outlet:**

Family Go Simple



Spindle Boxes



Color Box #3



Five Triangle boxes



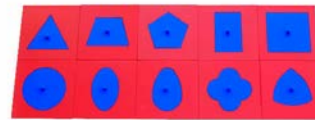
Tasting Bottles



Cylinder Block



Sandpaper Sounds



Metal Insets



Pink Tower



Well designed learning materials teach children simply by being handled. As children explore and manipulate these objects, they absorb all kinds of sensory impressions and **make discoveries on their own through movement and free exploration.** This is the essence of early learning activities for 2-6 yr. old children.

Photo: Using Knobless Cylinders at [**Counting Coconuts**](#)

Your home learning materials should be a mix of those you make yourself, plus Montessori and other commercial materials. Montessori materials are beautiful and generally expensive. Prices have come down in recent years, however. A selection of

What makes a learning material 'Montessori'?

There are all kinds of ways to do activities with your child. You can work together in the kitchen as you prepare meals, outside in the garden, and whenever the opportunity presents itself. Montessori materials, like the ones below, have certain characteristics. These features make them special, different, and very interesting to young children.



Left and right: [Family Go Simple](#)

Montessori materials:

- Use a variety of materials in purposeful ways
- Are self-contained on a tray or in a box, basket, bowl, or other container
- Are organized, attractive, and have points of interest
- Isolate the skill or feature of the activity to focus the child's attention; and
- Include a control of error.



The material at left and above is a **color sorting** activity. It is **attractive, interesting, and self-contained** on its own nice tray. The buttons have their own container, which helps **organize** the activity. Circles of paper in the same colors as the buttons are laid in the bottom of four clear containers. The buttons are **identical in every way except their color**; and there is the **same number** of buttons (3) in each color. This **isolates** the essential feature of the activity - **color**. If the buttons were different sizes and shapes, or if there were different numbers of buttons of each color, the purpose of the activity would not be as clear. **Video:** [A child sorts buttons by color.](#)

The **control of error** in this activity happens when the child puts a button into a container with a color different than the button's color. If the child is ready to focus on colors and match them, it will be obvious to the child when this happens. The control of error is **built into the activity**. If the child does not see the difference in the colors, he is

Repetition, Extensions, & Sequencing

Repetition

When a young child finds an activity in the Learning Sweet Spot, he typically repeats it at least a few times, and often many times, during a variable time period. This is when new brain nerve pathways are opened and strengthened. **Repetition is an extremely important part of development in early childhood.** The activities your child is really into should be out on your child's shelves. Allow **uninterrupted repetition** of favorite activities.

Extensions

Extensions refer to finding different ways to use a material or activity. For instance:



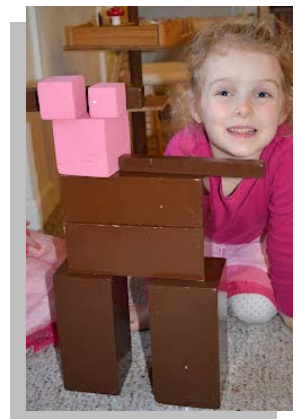
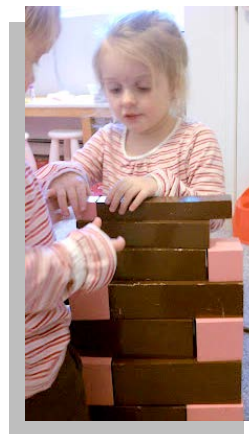
Spices ground in the activity at left can be sprinkled on a homemade pizza, at right.

Photos: [Chasing Cheerios](#)

An activity for mixing primary colors to make secondary colors turns into an art project.

Left: [Discovery Days & Montessori Moments](#)

Right: [The Education of Ours](#)



The dimensionally precise Montessori **Pink Tower** and **Brown Stair** can be graded as at left, used in a new construction (third from left), or combined to make an elephant!

Materials photos: [Montessori Outlet](#)

Children activity photos: [The Education of Ours](#)

More posts and photos of Montessori material extensions at [Living Montessori Now](#)

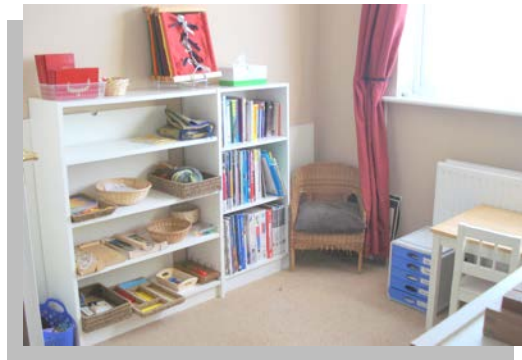
You can start out very well with a **small table and chair and one set of low shelves**. If you repurpose a few drawers to hold materials and use the tops of other furniture, this may be all you need. Here are [plans for making your own kids work table](#).



Left: Kidcraft Aspen Table & Chair Set. Middle: Tot Tutors Table & Chair Set. Right: Folding Table & Chairs Set.

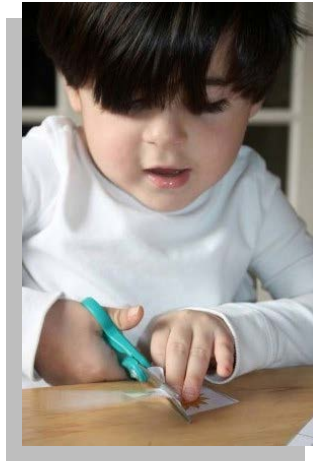


L to R from Ikea: Galant Shelf Unit, Besta Shelf Unit, Trofast Storage Unit, Trofast Wall Storage.



Left: Artisan of Whimsy. Middle: The Learning Ark. Right: Mummy's Reviews.

Practical Life Activities



“Little children, from the moment they are weaned, are making their way toward independence.”

Maria Montessori

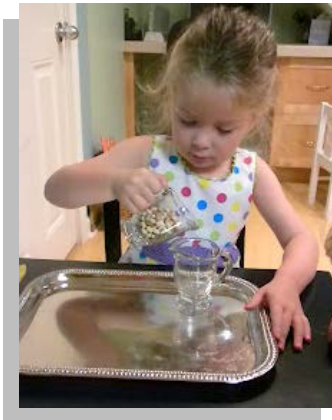
Clockwise from top left: *Chasing Cheerios*, *Shutterstock*, *The Education of Ours*, *MontessoriMOMents*, *Counting Coconuts*



An important grasp is the one used to hold cups and pitchers with handles. Pitchers with pouring lips make things a bit easier. Water colored with food coloring can be used once rice is mastered.



Transferring water between bowls with a turkey baster is a favorite with most kids. The grasp can vary from a whole hand to a 'C' grasp to using the opposed thumb. Learning to control drawing up and pushing out the water adds another element of challenge. Cleanup equipment is essential!



Discovery Days & Montessori Moments

Peaceful Parenting

Chasing Cheerios



More nice transfer materials from *Discovery Days & Montessori Moments*. Pouring rice or beans with plain cups or sponging comes first. Then you can move to tongs, cups and pitchers with handles and pouring lips, and finally to tweezers and eyedroppers.

Videos: [A tray is the control of error](#) [A two yr. old pours rice](#) [Spooning beans](#)

Weaving



Weaving is another back and forth, in and out fine motor activity that kids love. It can be done many different ways and kids can create neat crafts projects pretty easily. You can use twigs, a piece of cardboard, a plastic weaving frame, plastic trays, or a dishwashing rack as a weaving loom. Your child can make potholders, dream catchers, even a Mother's Day basket. Fun!

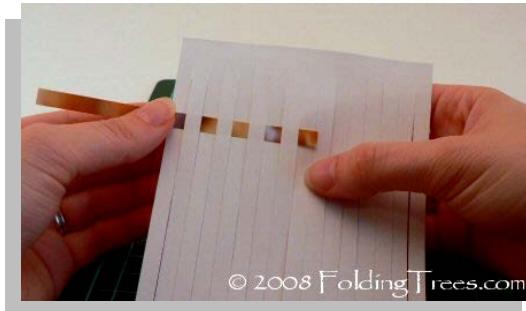
Photo: Concentration and fine motor work, **Julie Josey**



A dish drying rack makes a perfect first loom.
Counting Coconuts

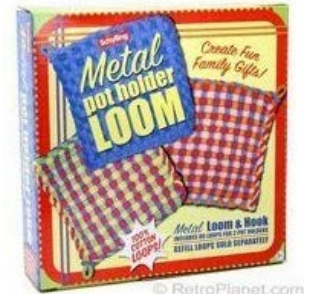


A laundry basket works, too.

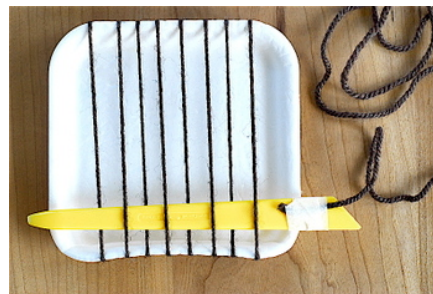


Paper weaving. Cut wide spaces at first to make it easier. Work towards narrow spaces as your child's skill improves. Use colors of paper ribbons for cool effects. Check out the links here & below.

Folding Trees



Potholder kits are under \$10 at most discount stores. Kids, like the girl pictured above, can make something useful with these.



This simple weaving project from the **Our House** blog requires just a styrofoam tray, scissors, a piece of cardboard, and yarn. Make little slits in the tray so the **warp** threads stay put. Make a little **shuttle** from cardboard and attach the **woof** yarn to it with tape. Change colors by tying on different yarn as you go along. Display your child's creations.

Paper weaving at Tot School

Weaving a paper basket

Dressing



Learning to dress your self is a big deal. You can learn all the other skills; but if Mom or Dad still has to help with your clothes, you know you aren't quite where you want to be yet. Sometimes a child sees getting help with dressing as a good way to get some time with you. Most children just want to dress and undress themselves. Learning to get different kinds of clothes on and off and to use zippers, buttons, snaps, and other fasteners takes practice.

Photo: Zippering at [Peaceful Parenting](#)

"If teaching is to be effective with young children, it must assist them to advance on the way to independence. we must help them learn to walk without assistance, to run, to go up and down stairs, to pick up fallen objects, to dress and undress, to wash themselves, to express their needs in a way that is clearly understood, and to attempt to satisfy their desires through their own efforts. All this is part of an education for independence."

Maria Montessori, *The Discovery of the Child*

Getting clothes on and off

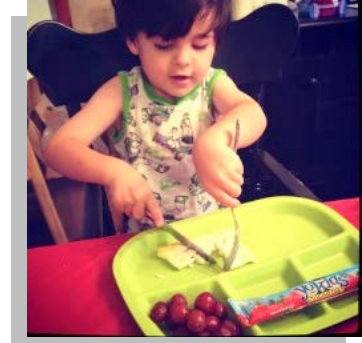
Along with operating all those fancy fasteners, a child must learn to get her clothes on and off. Here are some ways to make the process less frustrating and more successful:

Avoid the rush



Busy, rushed mornings are not the best times for dressing practice. Set aside **quiet time**. Have fun with it. Be patient. Work on one item, like **socks**. Socks are pretty easy, which gets things off to a good start. **Pants** can come next. **Shirts, coats, and dresses** are probably the most challenging. A **basket of clothes** (photo) turns dressing into a special activity your child can do anytime.

Photo: [Counting Coconuts](#)



At left, a carrot peeling material from [Counting Coconuts](#). It has a [small peeling tool](#) and a [hand wave slicer](#), adding new tools. In the middle, another great [Counting Coconuts](#) activity - egg slicing. This uses a [hinge type egg slicer](#). At right: learning to cut with a knife and fork at [montessoriMOMents](#). Mastering these skills builds a positive self-image and an "I can do it!" attitude that stays with children as they get older.

Video: [Egg slicing](#)



Even buttering bread can be made into a Montessori activity. This material **organizes** and **isolates** the essential elements and the task in an aesthetic way that helps a child focus attention and internalize a sense of beauty and order.

Photo: Montessori bread buttering material at [Counting Coconuts](#)

Flower Arranging



With fresh or artificial flowers, assorted foliage, a jar with lid, small vases, scissors, and a tray you can make a nice flower arranging activity. Stephanie at [Discovery Days & Montessori Moments](#) made these trays for her older and younger daughters. The lid in the top photo has holes to help her younger child arrange the flowers. The bottom tray has a greater selection of flowers and foliage and allows the older child to do free form arrangements. This is an excellent example of modifying materials to meet the needs of different children and allow each to experience success. Great job!

[Another blog post on flower arranging](#)

Hammering

What young child doesn't like to use a hammer? Just pounding something is a good stress reliever. With a few simple hammering activities, you can guide your child in a Montessori way to develop fine motor, eye-hand coordination, and shape recognition skills.



styrofoam or floral foam, golf tee 'nails', and a small wood or rubber mallet on a tray make a great first hammering experience.

Chasing Cheerios



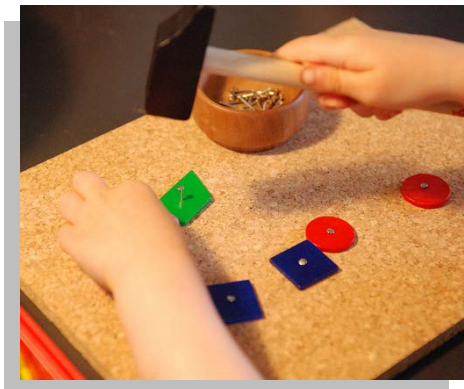
A tenderizing mallet can be used to hammer golf tees into a box. Make starter holes at first.

Fresh Idea Mama



In this variation the golf tees are hammered into a baking dish filled with compacted playdough.

Little Schoolhouse in the Suburbs



The **Hammering Shapes** at **For Small Hands** are a big hit with most kids. Geometric shapes are hammered into a cork board with brads and a small mallet. Look for these on Amazon, also. \$ **Saving Tip:** at For Small Hands, buy the **replacement pack of shapes**. Get this **7" lobster mallet**. Get an unframed cork bulletin board at a crafts store.

Photo: *Mama Liberated*



Once your child has the hang of it, create different shapes like those shown at left. There are almost limitless possibilities. Make patterns yourself and take photos of them for your child to recreate on the board. Let your child explore and create.

Photo: *Putti's World*

Sensorial



Sensorial materials educate the senses and develop strong brain architecture.

Bottom right: [Discovery Days & Montessori Moments](#)

"The mind of a little child is certainly not a blank when he begins the education of the senses, but his concepts are all confused. He begins to distinguish various traits in objects already known. He distinguishes quantity from quality and separates form from color. He distinguishes dimensions in objects that are long or short, thick or thin, large or small. He separates colors into groups and calls them by name. He notices the varying intensities of colors, calling the two extremes light and dark. Finally, he distinguishes tastes from smells, lightness from softness, and sounds from noises. He succeeds through the education of his senses in ordering his mental images. This is the first act of ordering in his developing mind. This sense of order that has been acquired early is of utmost importance for later life."

Maria Montessori, *The Discovery of the Child*



Pattern Matching

When your child has colors down pretty well, extend into **patterns**. This cool, frugal activity uses scrapbook papers glued onto fruit juice lids. Your child can match the patterns and play a **memory game** (p. 228) with these. Store on a tray or in a basket. Nice!

Photo: [Laura Ingalls Wannabe](#)



Here are examples of good **iPad apps** for reinforcing your child's developing visual skills:

Top left: [Photo Touch Food](#)

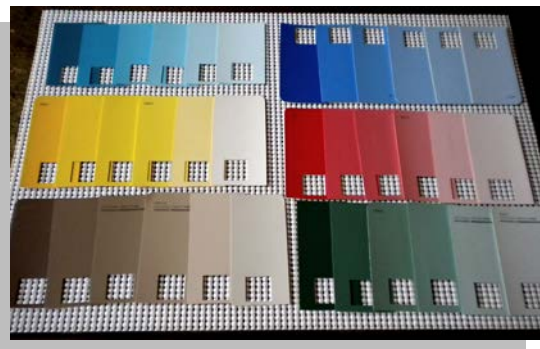
Top right: [Memory King](#) (start with fewer cards)



Bottom Left: [Kids Can Match - Animals](#)

Bottom right: [iTot Cards](#)

Color Shades



A collection of free paint sample cards with shades of colors substitutes for the expensive **Montessori Color Box #3** shown below. In this fun activity, your child **grades** the shades of colors from **darkest to lightest**. This is a great example of the Montessori Sensorial approach, which encourages children to make **comparisons**, identify **differences**, and make **decisions** about objects related to their sensory characteristics.

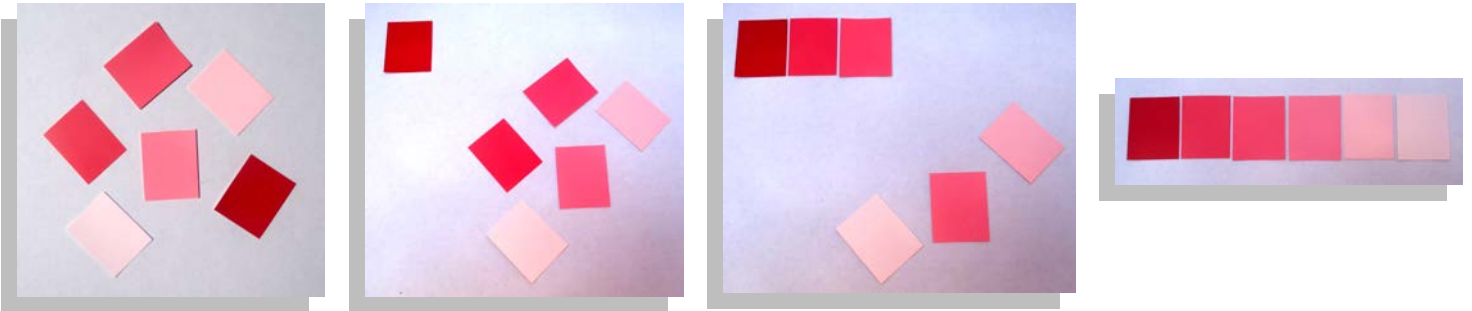


This activity is done similarly to the Pink Tower, Red Rods, and Brown Stair. When your child compares the colors and decides which one comes next, you will almost be able to hear those brain nerve networks opening.



Look for paint sample cards you can combine to get at least 6 - 7 shades of each color. Those shown at left have 4, which is ok for starting out. Cut out all the colors, removing any words and making them all the same size. Get a nice variety of bold colors.

Photo: [Laura Ingalls Wannabe](#)



Left: Your child sets up a work area and lays out all the shades of one color in a random group.

Middle two photos: "Can you find the darkest one?" Your child finds the darkest shade and sets it at the top left. "Can you find the darkest one of the these that are left?" Your child continues, always looking for the darkest shade in the group and placing it to the right of the last shade in the line at the top.

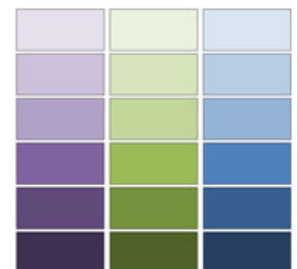
Right: When your child has the colors graded, ask where the darkest and lightest shades are. Now your child can do more colors as she wishes. The left to right arrangement reinforces **left-to-right visual tracking** for reading.

Note: If your child is unable to identify the darkest shade, try first showing your child the darkest and lightest shades and saying, "This one is the darkest, this one is the lightest." If necessary to increase your child's success, try using just 3 shades that are clearly different at first. Use more shades and shades that are more similar as your child's skills improve.



L: A fun extension. Get two of each card. Glue pieces from one set onto clothespins. Your child attaches the clothespins to their matching shades. **R: Color Grading Cards** from Montessori Print Shop.

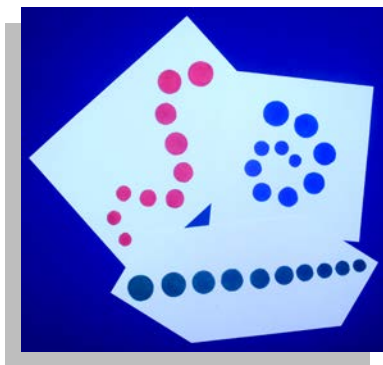
Photo: [Laura Ingalls Wannabe](#)



Socket Cylinders & Extensions

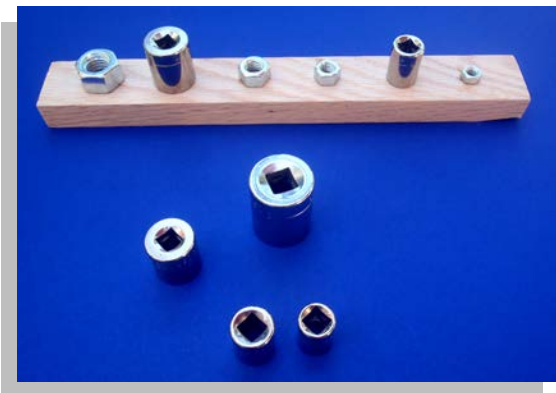
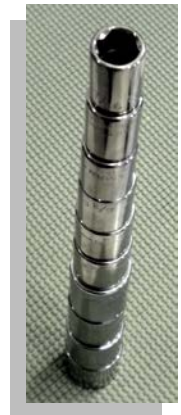


Most households have a socket set. If not, here's your chance to get one that can double as a learning material. These can be graded in a line left to right from largest to smallest, or used to make many different designs, as above.

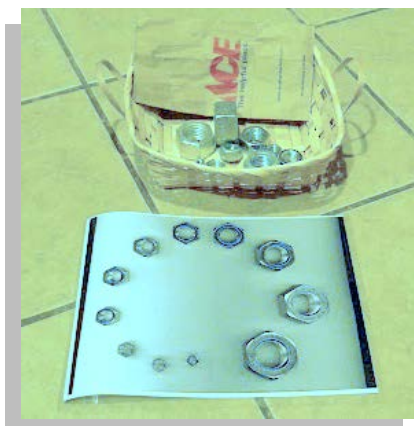


Left: Sockets were traced to make control cards for matching.

Right: Sockets can be stacked.



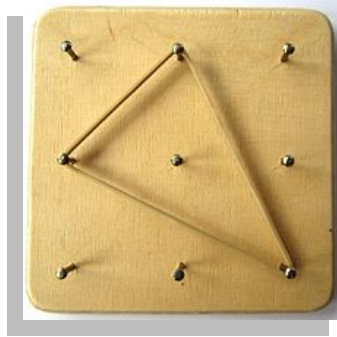
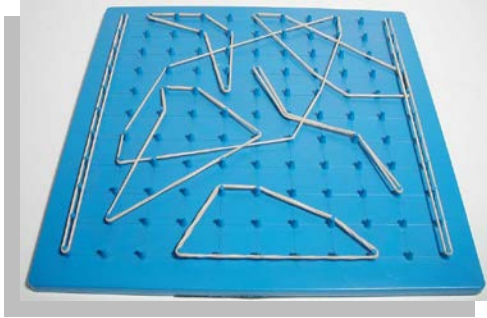
A **socket & nuts matching board** DIY project. Nuts that fit the sockets are glued largest to smallest to a board with super glue. The sockets fit snugly over their matching nuts. You could also drill holes for inserting hex bolts so your child can screw on the nuts using the sockets and socket handle. This would combine Sensorial and Practical Life.



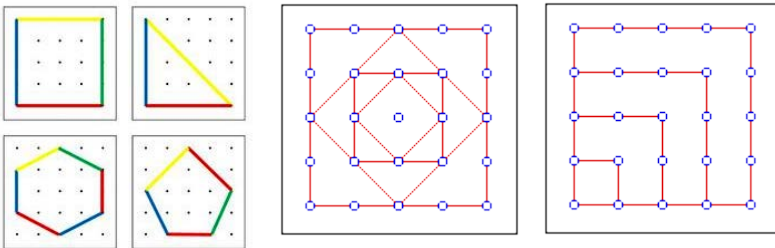
An assortment of nuts can be laid out in various designs on the glass of a photocopier and copied. Match the nuts to those on the copies. Mount the photos on poster board for added durability. Nice!

Photo: [Post-Apocalyptic Homeschool](#)

Geo Boards



A **Geo Board** is a sheet of wood or plastic with screws, nails, pushpins, or other protrusions sticking out of it in a precise grid pattern. Stretch rubber bands over the pins and you can make all kinds of plane shapes and figures. **Above left:** An inexpensive plastic geo board like [this one](#) or [this one](#) will work very well. **Middle:** a small homemade geo board using a piece of wood and 9 nails. **Above right:** a homemade design from [Kindergarten & Mooneyisms](#). This is a sheet of soft wood with pushpins pressed into it.



After your child is familiar with the Geo Board, make up pattern sheets using the **printable masters** below for her to copy with rubber bands.

[Geo Board master sheets printable PDF](#)

Digital Geo Boards



Left: Geo Board (iPad) is a very nice free app that provides fun experiences creating shapes.

Right: Mosaic HD (iPad) is a pegboard type app that also makes a great digital Geo Board. Your child will have fun with this one.

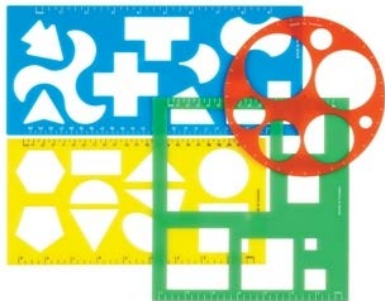
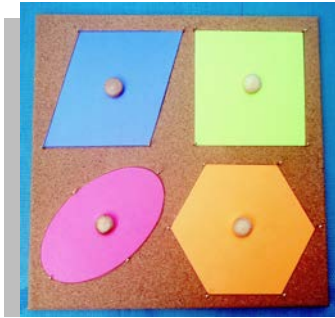
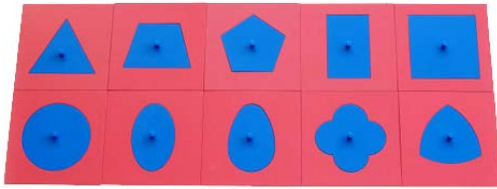


Video: [Child forming shapes on a Geo Board](#)

[A virtual Geo Board that can be extended into math games](#)

[An incredible page of interactive Geo Boards and Pattern Block games](#)

Tracing Shapes



Top photo: The [Montessori Metal Insets](#) are used in Montessori schools to give children direct experiences with shapes by tracing them onto paper. They are too expensive for most parents for home use, however, so we need alternatives.

Second photo: on page 213 are instructions for making these geometric shapes from illustration board. These can be traced with two fingers and a pencil, just like the Montessori inset shapes.

Videos:

[Presenting the Insets in Montessori school](#)

[Not Just Coloring!](#)

[Tracing insets at Oak Haven Montessori](#)

Third photo: These plaques and shapes are available at most crafts stores. The oval and rectangle shapes in this photo allow tracing the shape around the inside of the inset, as with the Montessori insets.

[DIY inset shapes at Living Montessori Now](#)

Fourth photo: [Geometric Template Sets](#) like these can often be found online or at crafts stores. These provide inside border tracing, as with the Montessori insets. This is easier at first than tracing the outside of a shape.

Bottom photo: Embroidery rings make great curved edge tracing shapes. Other common items like cookie cutters can also work well for tracing.

Tracing also prepares your child for writing letters and numbers.

Touch

These experiences help educate a child's sense of touch. They include activities involving **recognizing and matching objects by feel, temperature, and weight**. Focusing attention on these sensations, and making comparisons and decisions based on them, assists a child in the important work of organizing his brain nerve architecture.

Tactile qualities of objects



Top: A basket of objects to handle and identify as *hard, soft, rough, smooth, large, small, solid, spongy, firm, elastic, compressible, star-shaped, heart shaped, spherical, rubber, glass, fabric, tile, organic, inorganic, light, heavy, square, etc.*

"Don't touch!" How un-Montessori



Above: **Theme treasure baskets from *Counting Coconuts***. These nice baskets isolate tactile qualities in a Montessori way for younger children. L to R: **rings, wood, soft, brushes**.



When your child is familiar with objects in a treasure basket, Try this **stereognostic** activity. Your child close her eyes while you put 2-3 objects in a Mystery Bag. Describe each object **using as many terms as possible** and have your child bring it out. Repeat using different objects as long as your child is interested. Be sure to switch roles and let your child describe objects for you to pull out.

Digital Life



Bottom right: *Discovery Days & Montessori Moments*, Other photos: *Shutterstock*

"The most important thing is a person. A person who incites your curiosity and feeds your curiosity; and machines cannot do that in the same way that people can."

Steve Jobs

"Our students have changed radically. Today's students are no longer the people our educational system was designed to teach." "...the most useful designation I have found for them is 'Digital Natives'. Our students today are native speakers of the digital language of computers, video games, and the Internet."

Marc Prensky



You Tube and **Vimeo** have videos on almost any topic a child would be interested in. As our children become "*Show me, don't tell me*" learners, **videos are becoming a primary teaching tool**. Their typically shorter lengths concentrate information and prevent extended passive watching. Videos usually focus on one topic or experience.

It is easy to set up favorites and playlists on You Tube so that your child can watch videos of special interest multiple times. You can set up a family channel and post your own videos with your child as the star. Use them to relive special trips and other meaningful experiences. Take advantage of these resources for your home early learning program.



An **Apple TV** unit (\$99), or a **Roku 2 HD** box (\$79), let you easily stream educational You Tube videos, and all kinds of cable-free television programming, right to your TV using your home internet wifi system.



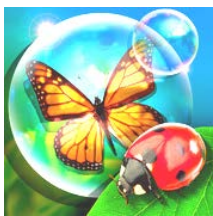
Lots to Learn is You Tube's own collection of preschool early learning videos.

Turtle Diary is a free site with all kinds of educational, animated videos.



Multi-purpose Tablet Apps

Good apps are recommended throughout this book, especially in the Sensorial, Reading and Writing, Geography, Science, and Math chapters. Below are examples of great apps that teach multiple skills, and that most young children will enjoy.



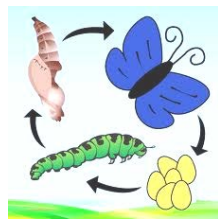
Bugs and Bubbles (iPad) by **Little Bit Studio** is a beautiful, thoroughly engaging app. Gorgeous graphics and a variety of perfectly interactive games revolving around a bubbles theme make this a must-have app for every preschooler with an iPad. These folks are good.



Bitsboard (iPad) from **Grasshopper Apps** is just about the only object - color - shape - word - sound - animal - number or anything else you want to identify app your child will ever need. Replaces a hundred lesser apps. These folks create wonderful apps with real world images.

- [The Children's Garden at Chasing Cheerios](#)
- [Gardening with Children - Colorado State University](#)
- [Gardening with Children - Earth Easy](#)
- [Gardening with Small Children - Renee's Garden](#)
- [Family Gardening at KidsGardening.org](#)

Photo: *Chasing Cheerios*

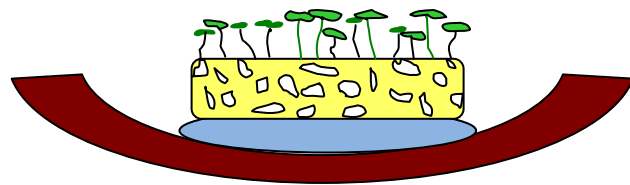


Left to right: Good plant apps. [Parts of Plants](#) (iPad). [Gazzili Science](#) (iPad) has a fun plant interactive. [Life Cycles](#) (iPad, **android**) is an 'edutainment' app, suited for 5-6 year olds who will listen to a presentation. [Seed Cycle](#) (iPad) is a nice interactive. [Parts of a Plant](#) (iPad) is a good app a younger child can use alone or with a parent.

Sponge Salad

Materials

- A new, rough textured sponge
- Cress seeds
- A dish



What to do

Rinse the sponge several times with clean water and lay it in the dish. Sprinkle cress seeds over the top of the sponge. Add some water to the dish. In about a day the seeds will crack open. They will start to root in about three days, and probably by the next day will have leaves. When they get big enough, trim them off with scissors and eat. Sponge farming!

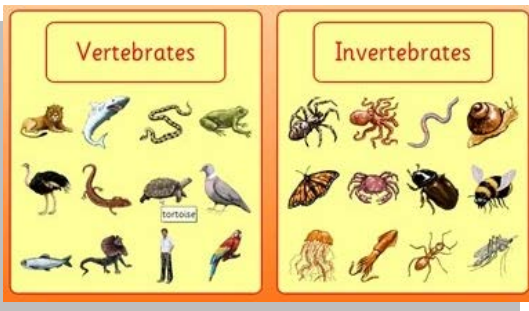




Montessori style, self-contained dinosaur materials from [Counting Coconuts](#). Left: Free **Dinosaur information cards** from [Montessori Print Shop](#). Middle: Punching dinosaur outlines with a pushpin. Your child can cut these with scissors if she is ready. Get free dinosaur, and other, outlines at [Enchanted Learning](#). Right: Cleaning a dinosaur.

These are great examples of creating language, fine motor, and Practical Life materials around a theme. You can do the same with many themes - holidays, other animals, plants, family trips, almost any subject your child is interested in.

Vertebrate or Invertebrate?



Review with your child that our bodies have **backbones and a skeleton**. Tell her that animals that have these, including us, are called **vertebrates**. Animals that do not have a spine and a skeleton are called **invertebrates**. The word **vertebrae** refers to the bones that line up to make the spine.

Help your child feel the points of her spine, and yours, with her fingers. Print out either or both of the activities below and help your child as needed to sort the animals out as vertebrates or invertebrates. Google fish, dog, bird, horse, frog, and other skeletons to show your child examples of the similarities of their bone structures to ours. They have **heads, spines, ribs, and extremities with appendages**, like our fingers and toes.

[Vertebrate / Invertebrate sorting printable \(under Science\)](#)

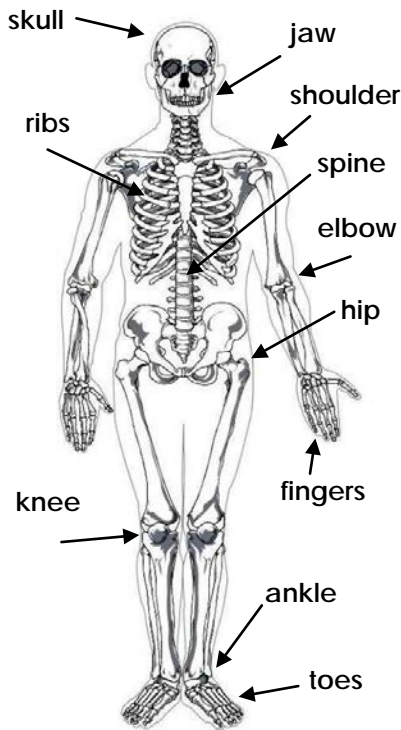
[Vertebrate / Invertebrate sorting cards](#)

[Animal skeleton printables](#)

Video: [Vertebrates and Invertebrates 1](#)

[Montessori Print Shop sorting material](#)

These Bones of Mine



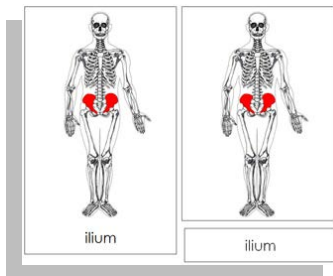
All you need is a **picture of a human skeleton**. Title a sheet of paper 'Bones of mine that I can feel.' Have your child start with the **fingertips** of one of hand. She can squeeze her fingers one by one, feeling for the **bones** under the skin. Some bones are easier to feel – like the **knuckles** where bone sections join. Have your child bend a finger and feel each knuckle. Repeat with other joints like the wrists, elbows, shoulders, hips, knees, and ankles.

Have him (or help) write the names on the sheet and draw an arrow to the bones he finds. Help your child as needed to find her **fingers, knuckle, wrist, forearm, upper arm, shoulder, chin, jaw, head, sternum, ribs, spine, hip, knee, ankle, foot, and toes**. Do the same bones on each side feel the same?

Bones of mine that I can feel	
fingers	chin
knuckles	sternum
hand	ribs
wrist	hip
forearm	knee
elbow	ankle
shoulder	foot
jaw	toes
head	spine

Have your child feel for bones down one side of her body and then the other. Include the same spots on each arm and leg, as well as the skull, jaw, sternum, and ribs

If your child is writing well now, have him write down a list of all the bones he can feel on the sheet of paper. Do this for her if she is not quite ready yet. Save this sheet and use the words as practice sight words when your child gets to that point in the Reading Sequence.



A great set of 25 **Skeleton Three Part Cards** (left) is available from **Montessori Print Shop**. See page 96 for directions on using these.

[Learning about the skeleton in Montessori school.](#)

[Get a free, large, printable skeleton here](#)

[Skeleton unit at Living Montessori Now](#)

[Online skeleton labeling game](#)

[Make a Q-tip skeleton](#)

[Cool paper skeleton to print out and assemble](#)

[Free printable skeleton](#)

Make your heart beat faster

	Rest	Active	After 3 min. rest
Me	82	138	84
Dad	68	132	76
Mom	72	128	80

What happens to the heart rate when we exercise? Find out with this simple test, most suited for older children. **Take your heart rate for one minute at rest.** Now, **run in place rapidly for 3-5 minutes** and then stop and take it again. **Sit down for 3 minutes** and take your pulse again. Fill in the results as shown at left. What do these numbers tell you about your hearts?

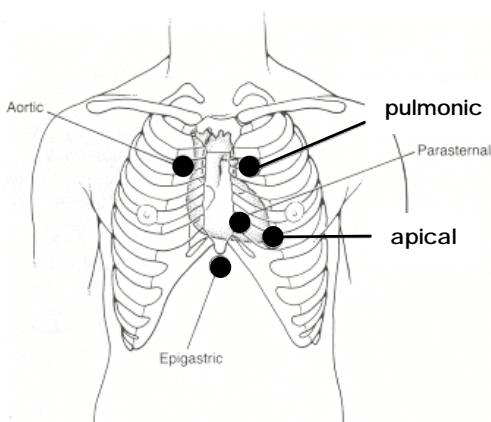
First, each resting heart rate above was in the normal 60-90 range. Five minutes of vigorous activity raised everyone's pulse - why? When you exercise, your body uses more oxygen. Oxygen is carried to your body in your blood, so the heart has to pump faster, and your breathing has to increase, to get more oxygen into your body. After you rest, your body's need for oxygen goes down again, and so does your heart rate and breathing.

Note: How rapidly your heart returns to its resting heart rate after exercise is one good indication of whether you are in good shape.

Listen to your heart



Doctors and nurses use a **stethoscope** to hear what is going on inside people's bodies. With an **inexpensive stethoscope** like the one at left, you can listen, too. Before **using the stethoscope**, always **bend the earpieces slightly forward**, toward your face, before inserting them in your ears. Tap on the large face of the stethoscope to be sure it is working properly. Nurses uniform shops also have stethoscopes.



Take turns listening to your hearts by placing the **large face of your stethoscope over bare skin** at any of the points shown at left. The **Pulmonic and Apical (or apex)** points will probably work the best. Make sure the room is quiet and don't talk. Press the face of the stethoscope pretty firmly on the skin between the ribs at the points shown and find the point where you hear the heart beats most clearly.

Electricity without wires

Static electricity makes for all kinds of fun. Do the activities and learn new words. When your child is a little older, she can learn about positive and negative charges and how they interact.

Materials

- A few balloons
- Plastic Comb
- Tissue paper
- Your own hair or a wool or nylon sweater
- Water faucet
- An aluminum can



What to do

1. Lay the can on its side. Rub the balloon 20-30 times on your hair or a carpet. Hold the balloon a little ways from the can. the can should roll toward it.
2. Turn on the water faucet so it has the smallest stream of water that keeps its shape as a single stream. Comb your hair 20-30 times. Put the comb up close to the water at right angles to the stream and watch the water bend toward the comb.
3. Tear off a few very small pieces of tissue paper and lay them on the countertop. Comb your hair 20-30 times. Place the comb above the paper pieces and watch them jump up to the comb.
4. Inflate a balloon. Rub it up and down against your hair, a wool sweater, or a carpet. Hold it a few inches from your hair. Did your hair stand out straight? Do it again and stick the balloon against a wall - it should stick to the wall.
5. If you have carpet in your house, put on socks and walk while rubbing your feet against the carpet, then touch a metal doorknob. Did you get a spark?

Video: [bending water with static electricity.](#)

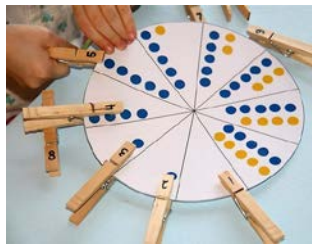
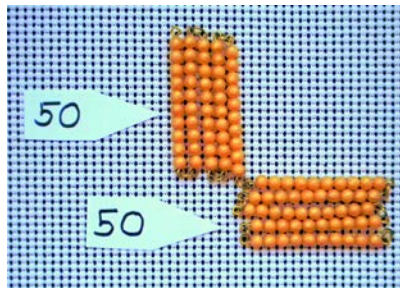
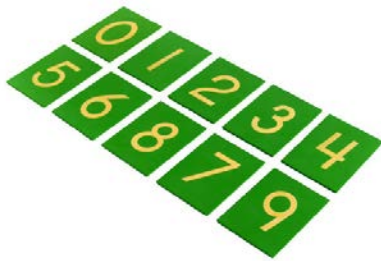
For more information on why these things happened, here are some good web sites:

[kids-science-experiments](#)
[science made simple](#)

[enchanted learning](#)



Mathematics



" Children of three years already know how to count as far as two or three when they enter our schools. They therefore very easily learn numeration, which consists in counting objects. A dozen different ways may serve toward this end, and daily life presents many opportunities; when the mother says, for instance, "There are two buttons missing from your apron," or "We need three more plates at the table."

Maria Montessori, The Montessori Method

Preparing your child for Math

Counting & Groups

The best preparation for math is **counting groups of objects**. How many fingers and toes? How many cars are in the parking lot? How many people in line? Pepperoni slices on the pizza, socks in the drawer, grapes in the bowl, books on a shelf; encourage your child to **practice counting often**.

The **Practical Life** and **Sensorial** activities are the foundation of Montessori for children under six. They encourage **counting** and **grouping objects**. Pieces of food are organized into a group on the plate. Objects are sorted into groups based on their characteristics. The **Three Dimensional Shapes** activities use groups of objects that change in size as they are manipulated. All these offer many great opportunities for counting.



1:1 Correspondence & Careful Counting

When your child counts, help as needed to get her to **slow down** and **say each number right at the moment her finger touches each object**. Children often get their verbal counting and touching of the objects out of synch. **One to one association** of a single spoken number with each object is a very important math concept. **Be sure your child has mastered careful, accurate counting before proceeding with the Math Sequence.**



Materials like the **Marbles & Golf Tees** (left, p.139), and the **Marbles to Soap Holder Transfer** (right, p.127) help a child learn about **1:1 Correspondence**

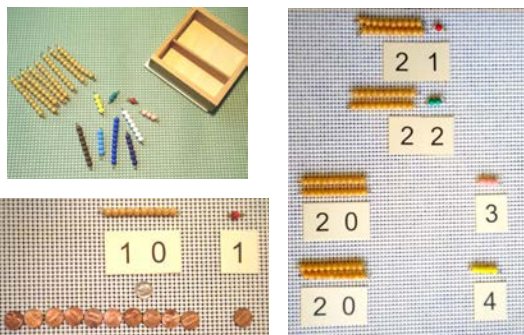


Amounts & Numerals 0-100

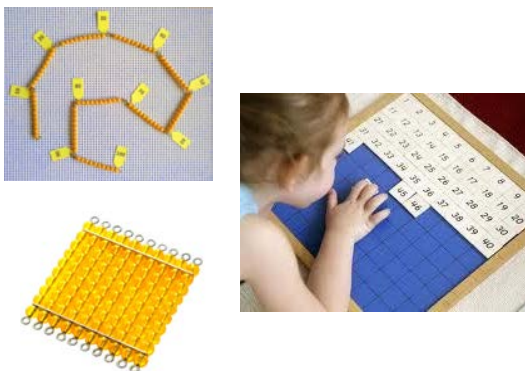
The Math Sequence starts by getting your child thoroughly familiar with amounts and numerals from zero to one hundred. This is done using a sequence of hands-on materials in a logical pattern. A summary of this process is shown below. As you follow this sequence of activities, you will find suggestions for branching off into other math materials that teach writing numerals, operations with numbers, telling time, and other skills when your child is ready. This will allow you to do a variety of math activities at the same time and keep things interesting. The chart on page 351 shows how this works.



0-10. Using coins and straws, Three Step Lessons, and the Sandpaper Numerals, you will first teach your child to **recognize amounts from 0-10 and to match these amounts with their corresponding numerals.** Then you will move to:



11-100. With Montessori Bead Bars, coins, and cards for making numerals from 11-100, you will next teach your child to **recognize amounts from 11-100 and match them with their corresponding numerals.** Next comes:



100 Practice. The 100 Golden Bead Chain, Hundred Board, and the 100 Golden Bead Square will provide your child with many experiences that reinforce the relationships between numbers up to 100. This is the perfect preparation for learning the Decimal System.

Online Hundred Board Games

Find and paint numerals on a Hundred Board

A good skip counting board

Say numbers, find, and 'splat' them

'Mend' the board by placing numerals correctly

Find the correct number from a verbal cue

Finding dog bones on the board

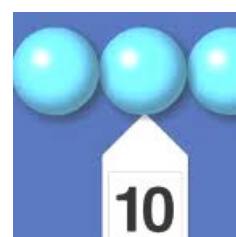
Type in numbers to fill in the blanks on the board

Hundred Board puzzles and worksheets



At **The Education of Ours**, They made a Hundred Board layout on kitchen floor tiles.

Hundred Board & Skip Counting Apps



Left to right: **Hundred Board** (iPad) is a decent app, but should offer more - like a free work option - for \$2.99, IMO. **100's Board** (iPad) is another basic hundred board app that provides good practice. **Skip Counting** (iPad) provides practice in this important number skill. **Montessori Bead Skip Counting** (iPad) offers another way to skip count.

Bonus Step: Going from 100 - 1000

The Hundred Square



The **Hundred Square**, around \$3, is another great Montessori material to have at this point. It reinforces the relationship between 100 objects in a concrete way for moving beyond 100, and leads into Decimal System work. To move beyond 100, use the **100 Square**, your **Teen Bead Bar Box**, and **Hundred Squares** from the **printout** on page 481.

Now we will do amounts and numerals activities as we did to get to 100. This will probably be a faster process as your child continues and sees the sequences repeat.

Division

Be sure your child has practiced and has a firm understanding of addition, multiplication, and subtraction before attempting division. Division is a less intuitive operation, and requires a solid understanding of the other ways of manipulating amounts and numerals. These activities take your child into simple division with numbers that are **equally divisible** by other numbers, without remainders.



"We have 9 pennies to split between 3 children. We need to divide up the pennies between the 3 children. How many will each one get?" Have your child put **one penny in each cup**. Point out that there are more pennies left, and have your child do it again, and then again. **Each cup now has 3.**



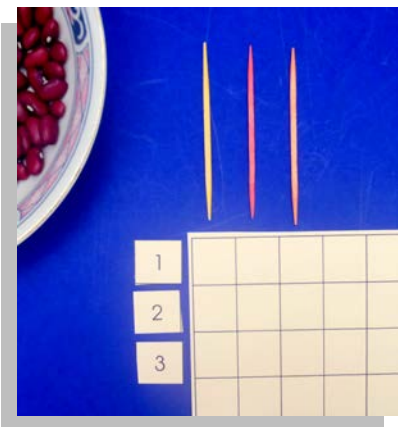
"Division means to separate into groups."

Write out the equation and say, "9, divided into 3 groups, equals 3 in each group."

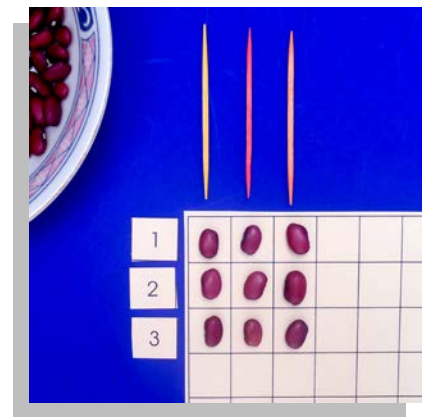
$$9 \div 3 = 3$$

Repeat the above exercise with other **equally divisible amounts** of 10 or less beans: 4 cups and 8 beans; 2 cups and 4, 6, 8, or 10 beans; 3 cups and 6 beans. When your child is ready, introduce the **Division Board**.

Video: [The Montessori Division Board](#)



Use your blank hundred board. The toothpicks represent the children in the above activity. this time they are getting 9 beans to plant. **Your child counts out three beans for each 'child', top down in each column**, until all the beans are divided between the children.



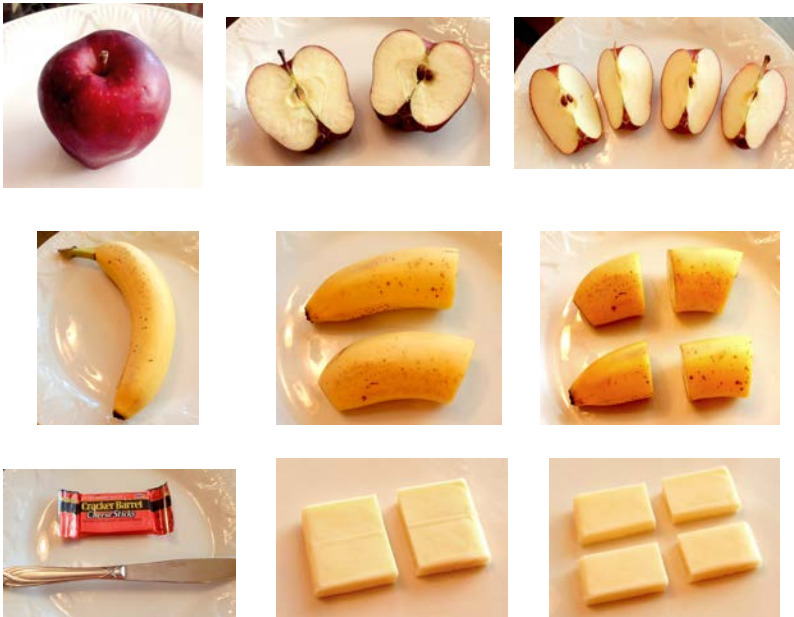
$$9 \div 3 = 3$$

Repeat with the same combinations listed under the first activity.

Fractions

And now for something totally different, we learn how to **divide one thing into smaller parts**. Fractions are placed here in the sequence, but children can usually start working with fractions once they are doing multiplication.

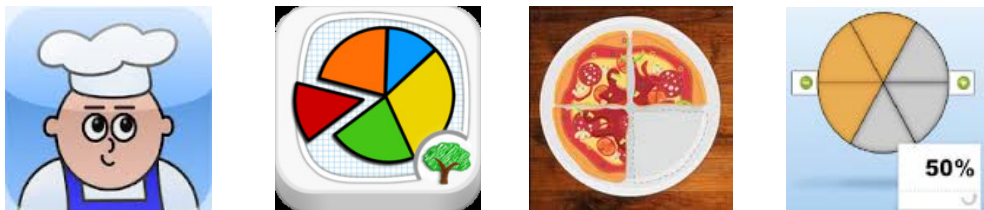
Food Fractions



The next time you are cutting fruit or cheese, ask your child, "*Where should I cut to make two pieces that are the same size?*" Let your child estimate and try it. Try again with more fruit until you get two pieces that are the same size. Tell your child, "*We cut the fruit in half, each piece is **one half**.*" Repeat the process to make **thirds** and **quarters**.

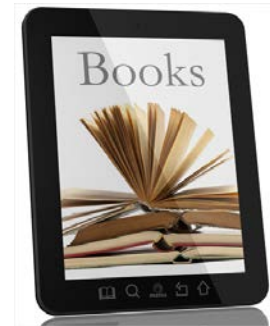
Show your child that by putting two halves of fruit back together, that "*One half plus one half equals one.*" Repeat this with thirds and fourths.

This is one of the best introduction to fractions for preschoolers. Look for opportunities to repeat this activity when you can. When your child is pretty familiar with dividing food this way, introduce apps and the fraction printouts.



Left to right: [Pizza Fractions](#) (iPad) is a nice starter app. [Fractions App by Tap To Learn](#) (iPad) uses tutorials and videos, and tests your child's knowledge. [Match the Fraction](#) (iPad) lets your child practice identifying fractions. [Fractions Circle](#) (android) is a clean, simple app. Choose the $\frac{1}{2}$ type numerals, percentages come later.

Reading & Writing



"...the muscular sense is most easily developed in infancy, and this makes writing exceedingly easy for children. It is not so with reading, which requires a much longer course of instruction, and which calls for a superior intellectual development, since it treats of the interpretation of signs, and of the modulation of accents of the voice, in order that the word may be understood. And all this is a purely mental task while in writing the child...materially translates sounds into signs, and moves a thing, which is always pleasant for him. Reading...is the interpretation of ideas from graphic symbols..."

Maria Montessori, The Montessori Method



In Montessori, everything a child does with the **Practical Life** and **Sensorial** materials prepares her for math, writing, and reading. Practical Life materials help a child develop **fine motor control** so that he may execute a **writing grasp** when he starts learning to read and write. She learns to **concentrate**,

and is exposed to **words** on labels and cards. The Sensorial materials educate a child's senses to focus more closely on **line and form**, to arrange objects from **left to right**, and to use **graphic printed materials**. They encourage the **passage into abstract thought** required for **decoding** the graphic symbols we call numerals and letters. If a young child has sufficient opportunities to work with Practical Life and Sensorial materials, then learning math, writing, and reading is natural and stress-free.

Children usually enter a **Sensitive Period for reading and writing around age four**. If we take full advantage of this time of increased interest and ability, children surprise us with how fast they learn. **Many children struggle with reading because they start too late**. If a child has little experience with early learning materials and no one helps him learn to read until kindergarten, the process can be slower and sometimes difficult. Most children eventually do fine. Many more, however, could be excellent readers with high comprehension and a love of reading much earlier, with less effort and more joy.

The **Reading Sequence** (p. 411) will guide you and your child with a series of activities that have been used very successfully to teach children to read. Watching a young child experience success with learning to read is fun and gratifying. To do it with your own child is an extraordinary experience, not to be missed.

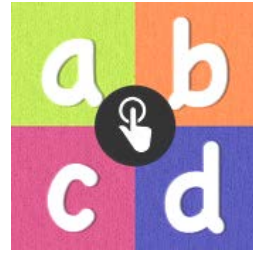
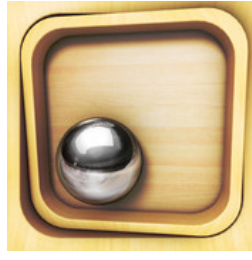
This Reading Sequence vs the Montessori Method

The **Reading Sequence** (p. 411) presented here is more streamlined and focused on learning to read quickly than the traditional Montessori method. Montessori developed a fairly complex series of materials that also teach grammar and parts of speech.

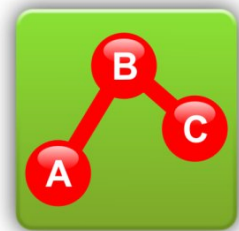
Implementing the full Montessori reading program is an unrealistic goal for most parents. It is also unnecessary for simply teaching a child to read. Young children are more exposed to graphics, words, and reading at an early age now than in 1905. Reading is now understood as an organic, genetic process which is more than the sum of its parts. Children are genetically programmed to learn to read. Using a focused, sequential approach that gives children quick success and moves them along fairly rapidly, they can

Apps for building reading skills

There are many apps that help preschoolers develop the **visual and thinking** skills required for reading. Some do this with really fun games. Here are a few:



Left to right: **Pick-up Sticks** (iPad, **Android**) develops visual acuity and discrimination. The excellent **Touch and Learn - Emotions** (iPad) encourages a child to focus attention on visual cues and develops visual discrimination while sparking conversations about emotions. **Labyrinth** (iPad, **Android**) requires visual concentration, eye tracking, planning, and fine motor skills. **Touch and Learn - ABC Alphabet and 123 Numbers** (iPad) reinforces letter and number recognition and listening skills. **Bitsboard** (iPad) is an incredible app that, IMO, should be on every preschooler's iPad. It has all kinds of customizable picture, number, object, letter, and verbal recognition activities. One of the best apps for kids.



Left to right: **Kids Connect the Dots** (Android) uses either numbers or letters to connect the dots (use lower case when using letters), and directs a child's visual attention to line drawings. **A Preschool Pattern Recognition Game** (iPad) helps establish left to right tracking while focusing attention on graphic forms. There is a kindergarten version, too. **Little Patterns Shapes** (iPad) is another patterning app that uses more abstract shapes. The great **Wood Puzzle Slider** (iPad) is a fun, engaging game with beautiful graphics. It requires visual focus, planning, and symbol recognition skills. **123 Domino** (iPad) is another beautiful game that requires increasing levels of color and pattern recognition.

Have your child use a **stylus** with these games to help her develop a writing grasp.

Learning to Write



Let's do writing first. **Practical Life** and **Sensorial** materials help a child develop the fine motor skills she will need when she becomes interested in learning to write. Transfers, Sorting, Dressing, Polishing, Nuts & Bolts, and other materials develop fine motor control, resulting in a **proper writing grasp**. **Drawing** and **Tracing** further refine a child's ability to use a writing instrument.

It can be frustrating for a child to move too quickly into writing if he has not developed the required skills. If you start Montessori at home when your child is 4 or 5, it is really important to **start with Practical Life and Sensorial activities first**. Spending more time with these materials will make writing easier and more enjoyable.

Reading is different. Your child can start the Reading Sequence whenever he shows an interest in letters and words and what they say. When you do the first Phonics activities, you will quickly see if your child is ready because the enthusiasm will be there. When you see it, proceed at your child's pace with **plenty of practice at each step**, just like Math.

Think of writing as developing in a sequence:

Developing a writing grasp → Drawing & Tracing → Writing letters & numerals



Left: a **proper writing grasp**. See page 124 for how materials like the **Transfers** develop this grasp naturally and gradually.

Below: Grip aids like this from **Draw Your World** help a child develop a writing grasp, but natural development is best. These are only *temporary* aids for 5-6 year olds if they need them.



If your child does not remember a word, simply tell her what it says and have her look at it and repeat it. Use words in sample sentences. Keep track of how many your child gets correct and come up with a reward system - like a favorite treat - if your child gets above a certain number right. Here are [Free Dolch Word Flash Cards](#).

Good sight word apps for tablet users:



Left to right: [Bitsboard](#) (iPad) has the largest catalog of photos and words available, all in an easy to use format. If you get only one app for sight words, get this one. The simple, convenient [Sight Words List](#) (iPad) has sight words grouped by age. [Abby Sight Words](#) (iPad, **android**) is a fun app with different activities. Use the lowercase letters option. [My Sight Words](#) (android) is a good basic sight word reviewer. The great [Kids Handwriting Grade K](#) (android) is a nice app that teaches sight words while providing writing practice. Writing words is a great way to remember them.

Note: Apps like Bitsboard (above), include many words that are not on the Dolch Words list. Introducing these is fine after your child has learned the more basic words on the Dolch list. Common sense dictates that we start with easier words first.

Memory Games

The classic '[Concentration](#)' **memory game** is always fun. Make up a set of small cards with the Dolch Words on them. Lay them out in a grid pattern. Have your child read each word. Flip them all over and play the memory game, turning two over at a time.

as	when	try	it
it	as	must	buy
must	buy	when	cold
play	cold	play	try