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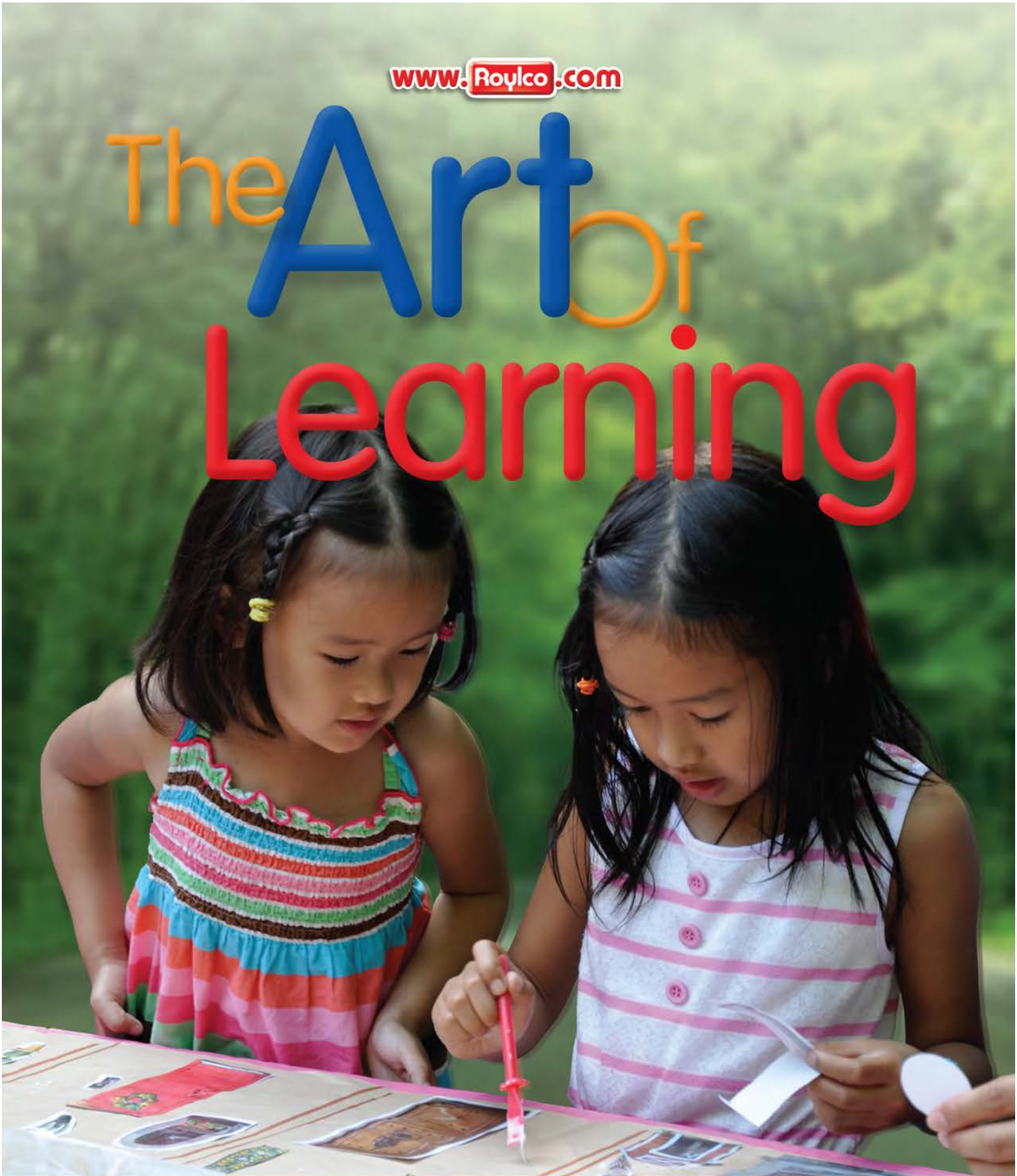
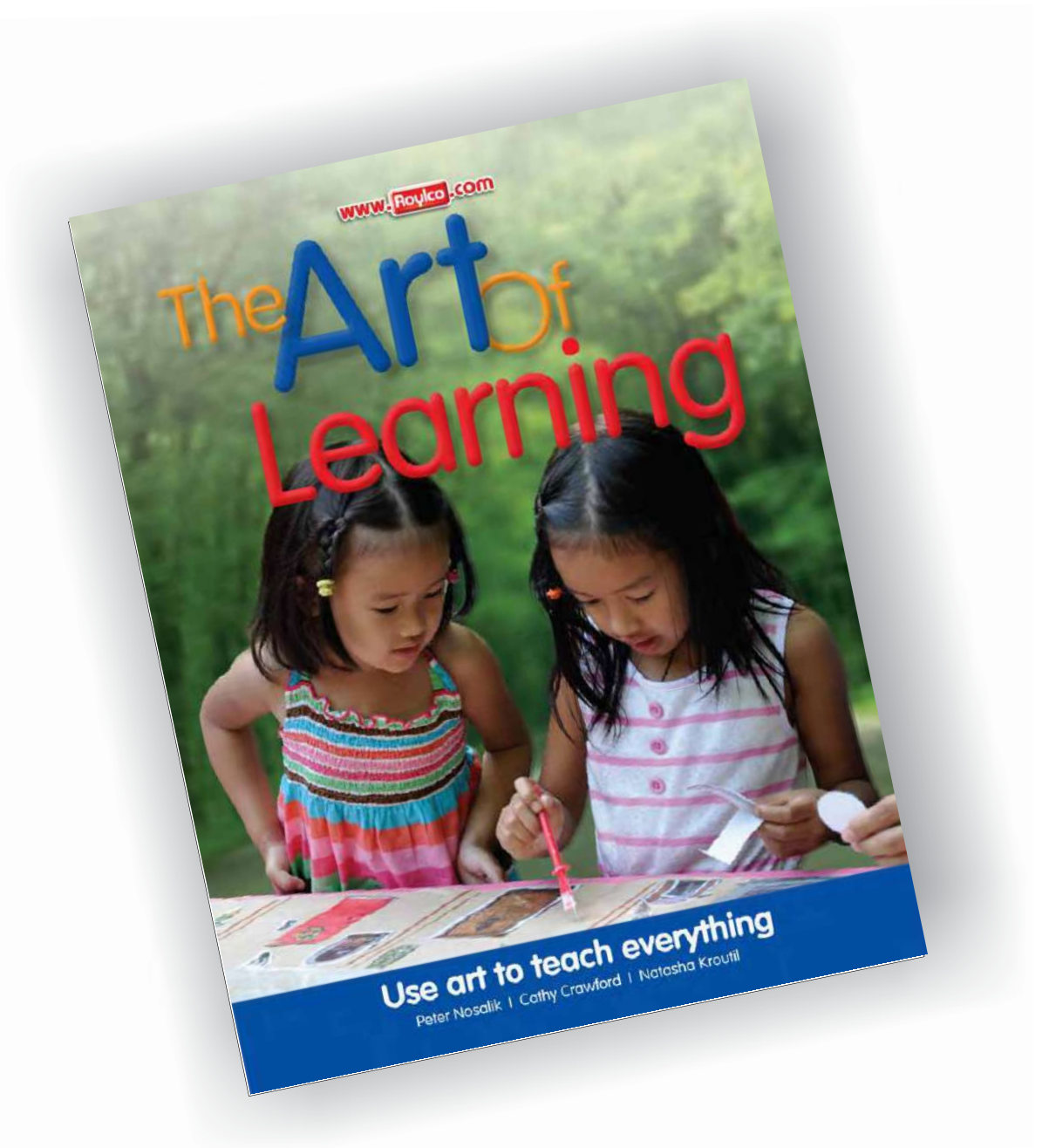
The Art of Learning



Use art to teach everything

Peter Nosalik | Cathy Crawford | Natasha Kroutil



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Welcome to the Art of Learning! I believe that almost anything, math, language, science and social skills, can be taught through art. More importantly, I believe that some children *only* learn through a hands-on exploration of materials and their environment. For these children, the art they produce is important for three reasons:

First, through art, children develop techniques such as drawing or sculpting that they can use to explore their world and their place within it. You empower children when you give them ways to explain and understand their world.

Second, children can grasp relatively complex concepts through art that would be extremely difficult to understand in any other way. I like to use the story of the Three Little Pigs to demonstrate this. The concept of planning ahead to avoid catastrophe is a challenging concept, yet children understand that almost completely through a work of literature that was first published a long time ago! Here is an example. You can teach how colors mix together to form new colors. While there is a great deal of science behind color mixing that deals with additive (light) and subtractive (paint) combinations as well as the rods and cones in your eyes that perceive light and the frequency of the waves produced by light, however, young children really need to know how to mix different colors. We can tell children that red plus blue equals purple, or we can give them a dab of red paint and a dab of blue paint and ask them to predict what will happen when the two colors are mixed together and then test our results. After a while, children will learn how to mix a whole rainbow of colors! It's easy and fun to learn this through art, but almost no child will learn this; through memorization. It's simply too abstract.

The third reason we use art to teach everything is simple. Children take their art home. Our greatest ally in the education of young children are the students' parents. We need to encourage them to continue the discussions we start in class at home. By sending meaningful artwork home, we give parents an opportunity to see what their children are doing and engage in wonderful, thoughtful and interesting conversations. The more parents understand about their children's potential, the more they will help explore this potential.

Let me come back to these reasons later and start by telling you about one of my teaching moments where I truly understood the potential lying inside children.

I began my teaching career at the W. Ross MacDonald School for the Deaf and Blind. Our school was a residential school where deaf and blind children from across the country would come and learn. One little boy named Grue had a difficult early childhood. He was born deaf and blind and had been institutionalized from a young age. Before he came to us, he had been in an institution that was meant for older people. They had a hard time dealing with a healthy young boy full of energy and curiosity. Instead of teaching him, they tried to limit the amount of mischief he got into. They did this by tying poor Grue to his bed.

Grue arrived at the school when he was around five years old. He could not speak, feed himself or get dressed on his own. He was still using diapers. He was energetic, curious and hard to handle.

You need to understand that blind and deaf people experience the world through their hands. As such, they can be very reluctant to touch and feel things that are unfamiliar and potentially dangerous. They must protect their hands! As a result, teaching these children sign language is really about trust. They need to trust me in order to place their hands in my hands to learn different signs for different objects.

For a young boy like Grue who never developed a trusting relationship with an adult and experienced much neglect, learning to sign is a challenge. Learning to trust an instructor is even harder.

Everyday we would start the same way. I would hold his hands and sign my name. At the time I had very curly hair and because my name is Cathy, the sign I used as my name was a 'C' repeated three times over my forehead. C represented my name and when repeated it also represented my curly hair. I let Grue feel my hair to understand the difference between my curly hair and his straight hair.

We repeated this day after day. Sometime it would be fine, but mostly it was a struggle. Each day I wore a special microphone that amplified my voice so that Grue could hear me through the special earphones he wore. Although he was legally deaf, he could hear some sound through these devices.

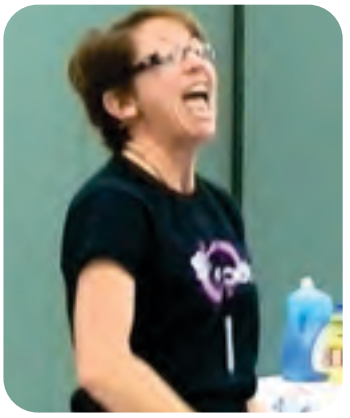
One morning I entered the classroom and called out to Grue. He turned to me and "called" out my name with the three repeated C's over his forehead. He did this as if he had done it a thousand times before, but it was the first time he had addressed me by name. He was blind so he could not see me crying, but even now, when I think back on it, I realized that here was a bright, good natured, clever boy who had been locked away without a voice and without much of a thought. He was now on the path to a lifetime of achievement and communication. He had taken his first step into a bigger world. It was a breakthrough moment for Grue, and it was a breakthrough moment for me. Children have all the potential in the world. All we need to do is give them a chance to explore it. I've chosen art as a way to start the exploration because it is something children want to do naturally and it can be customized in so many ways to teach so many things. Let's get to it!

+ ART =

I want to start this presentation with some interesting statistics. I recently talked to some math teachers and I asked them what's the biggest challenge they have in the classroom. One teacher replied and the rest agreed. She told me that her students *and their parents* don't think that the math she was teaching had any *real world* application. I hear that all the time from high school students, "But, when am I ever going to need to know this?" Young children are different, but I've seen over and over again that many of them get irritated or bored by math at a very young age. It's so simple to say, "I can't do it."

The arts are different. No one says that they can't do it. In fact, in a recent poll in American attitudes, a whopping 93% of respondents said that they believe an arts education is needed to produce well rounded students. Here's some more interesting facts. Students who study art in school are four times more likely to do well academically than students who do not learn about the arts. Similarly, they are three times more likely to win attendance awards than their non-arts studying friends. With those three facts in mind, I want to suggest that using art to teach all aspects of the curriculum is the best way to encourage well rounded students to tackle academic challenges and stay motivated in school.

Let me tell you a story:



A few years ago I attended a big presentation by Lisa Murphy, the Ooey Gooey Lady. She's a wonderful presenter and one of my all time favourites. She is a firm believer in process over product and effort over end result.

Lisa's focus is not on sending beautifully assembled artwork home with the children. Instead, her goal is to give students the best possible experience in the classroom.

At the end of her presentation, she opened the floor to questions. One teacher raised her hand and asked with concern, "But when do you send artwork home to the parents?"

Lisa responded patiently, "Art is not a receipt." I love that statement. It sums up both the importance of process and the reality that parents want to see something at the end of the day in order to judge what their child has learned and prove that the money they spent on daycare is worthwhile. That must be very frustrating for teachers like Lisa Murphy.

I agree, "Art is not a receipt." That being said, there are times when parents rightfully want to see what their child has done. Likewise, there are opportunities for us to engage parents through a discussion of the artwork that their children produce. Art isn't a receipt, but it can be and should be a visual representation of classroom learning.

Many times, especially when a parent isn't coming in to pick up their child, the child's artwork is the only thing they see. It's great when they look at their child's artwork, but it's even better when it sparks a conversation. That is one of the goals of this presentation. Let's help spark conversations between parents and their children through art.

Foundation Philosophy

Let your students soar through creativity!

In creating these activities and exploring our ideas, we kept these principles in mind:

1. We are seeing that more and more is expected from younger and younger children. While that may be the way education is going these days, it can be frustrating for teachers, especially when they believe that socialization or learning through play is the most important thing young children need to learn. I want to show you how we can develop good socialization skills while learning curriculum related material through art projects.
2. I hear over and over again from teachers that they hate teaching science, math or even art. I am going to show you ways to teach all these subject areas and more through art projects that are easy, quick and inexpensive to prepare and conduct.
3. In my experience, there are two types of children: Those that want to create art and those that want to finish their art as quickly as possible so they can move on to the building block area or out to the sand box. I want to give you ideas that will engage all of your students with specific projects that are geared towards their interests.
4. Our economy is changing. Some skills that used to be important are becoming less important while other skills, like design, photography, writing…almost anything that deals with social media, is becoming more important. I view design, photography, etc., as an important literacy, almost as important as reading, writing and math. We want to introduce some of these newer skills to younger children.

We want to engage parents in the education of their children. I strongly believe that sending artwork home with children gives parents an opportunity to talk to their child about what they did at school and through these conversations, parents will start to reinforce what you're doing in the classroom.

Build on our foundation by adding your unique perspective.

Make Your Own Kazoo

I want to start today with something that we can all do together. Let's make a kazoo! Here's why I love this project.

- It is simple to do.
- It is inexpensive to make.
- Unlike many "homemade musical instruments, it works beautifully.
- There are variations which allow you to make different sounds.
- We can use it for other activities like "play along songs" or even exercise activities.
- Playing a kazoo is a fun indoor activity and even better outside.
- We can use it to identify scientific principles.
- Finally, students can take it home and demonstrate how it works and explain to their parents *how* it works. It's a great activity/craft that will set the tone for all other work you send home to parents. It demonstrates how crafts and art projects can lead to conversations.

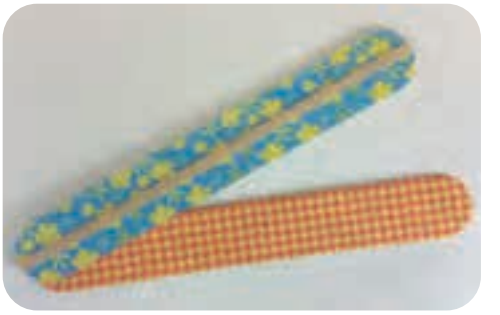
To start, you need two craft sticks such as our R39101 Fabric Print Craft Sticks or R39100 Wild Animal Craft Sticks. You can replace these with tongue depressors or large craft sticks. Additionally, you will need one thick elastic band and two thin ones and 3 small pieces of thicker paper, like our R15314 Super Slick Craft Paper. Cut the paper into squares about 2 x 2" (5 x 5 cm).

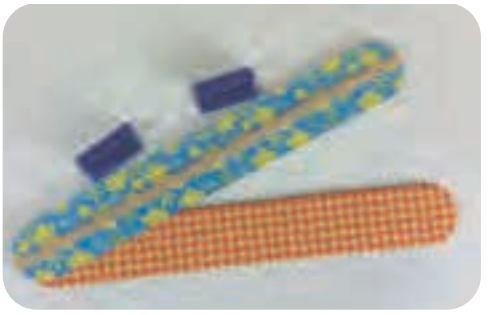
Start by stretching the thick elastic band over one of the craft sticks from end to end. Next, fold two of the paper squares in half and then in half and finally in half again. Place one of these square under the elastic band as close to one end of the craft stick as possible. Repeat with the second folded square and slide it under the opposite end of the elastic.

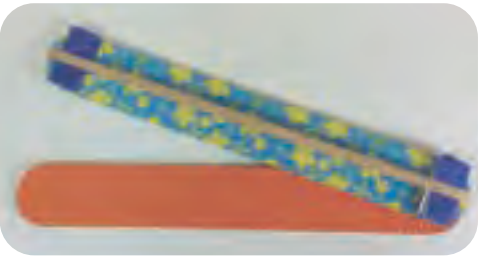
Place the second craft stick over the first to make a sandwich with the thick elastic and the two folded squares in the middle.

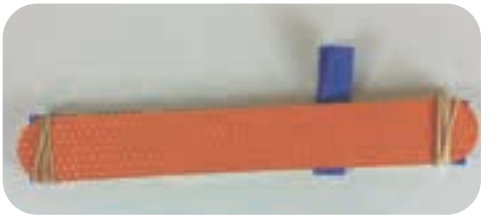
Finally, wrap the two small elastic bands around either end of the craft stick sandwich directly above the folded squares of paper.

Blow through your kazoo. If you are not happy with the sound you are making, fold the third paper square in half or in quarters and insert it near the middle of the kazoo. Try blowing again on either side of the middle paper. Adjust the middle paper strip by sliding it closer to one end. Try blowing again. What happened? The tone changed.









Let's explore the science of kazoos!

Sound waves are produced by vibrating a membrane. For humans, the membrane is our vocal chords. We are experts at controlling the air that flows over these chords and as a result we can sing, speak, shout, laugh and whisper.

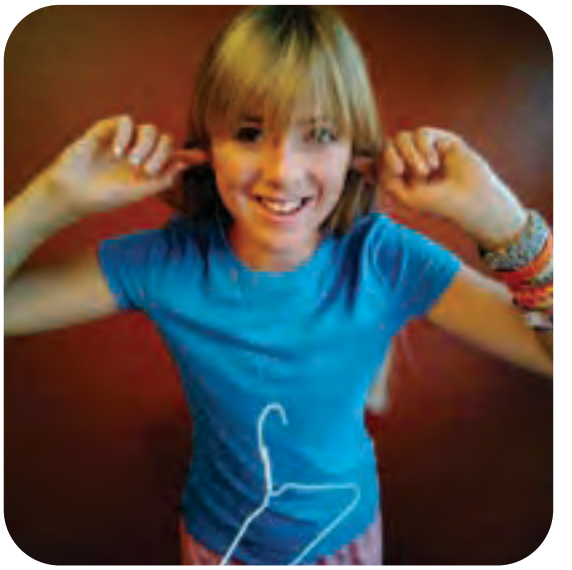
In our kazoo, the membrane is the thick elastic band. We need to separate it slightly form the craft stick underneath it, so that's the reason for the folded up squares of paper. The harder we blow, the faster the elastic vibrates. The slower we blow, the slower the elastic vibrates.

To change the pitch, all we need to do is change the position of the third folded piece of paper. When we move it closer to one end, the elastic is shortened and produces smaller vibration which results in a higher note. When the paper is positioned closer to the other end of the craft stick sandwich, the elastic is longer and produces longer vibrations resulting in a lower tone. Try moving the paper as you blow through the kazoo.

Here's what you can tell your students to tell their parents:

The sound of our voice is made through vibrations. Short vibrations make high notes. Long vibrations make low notes. I can use my kazoo to demonstrate!

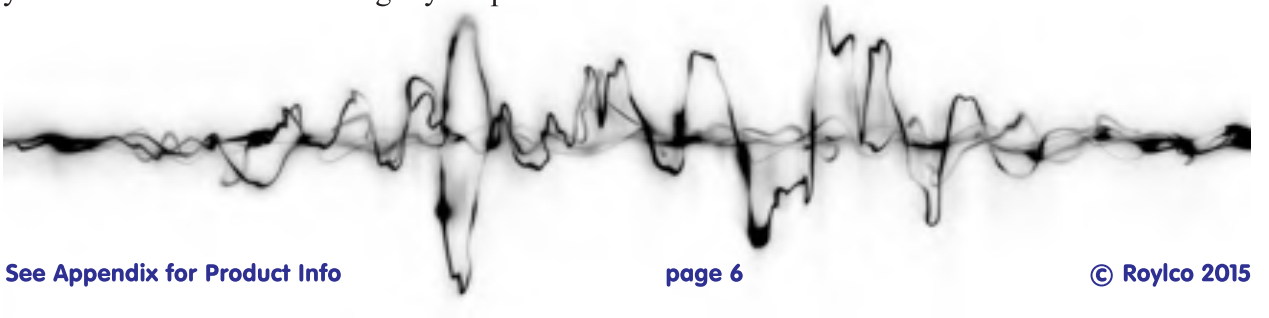
Here is a bonus experiment you can do with your students. All you need is a wire hanger and some string or thread.



Start with a length of thread about 3' (1 m) long. Wrap the ends around a child's index fingers on both hands. Ask them to stick their fingers in their ears. Can they hear anything? Probably not. Now, take the hook of the hanger and suspend it from the thread. Can you hear anything now? Maybe, but what happens when you tap the hanger with a pencil? Now you can clearly hear a beautiful bell sound. Tape the hanger with different objects. Does the sound change?

Here's what's happening. The hanger is vibrating at such a short vibration that we really can't hear it. The thread or string conducts these vibration directly to the ears. We can now hear the hidden music of a coat hanger!

Repeat this experiment with different objects. Try a wooden or plastic clothes hanger. What do you expect will happen? Conduct the experiment and observe what actually happens. After recording your results, try to determine why you got the results you did. Try other objects such as metal washers, glass Christmas ornaments, wooden pencil, etc. The more objects you try, the more data you will collect and the stronger your predictions can become.



Socio-Emotional Development

Children learn from their environment. They are constantly soaking up information wherever they go, and experimenting with their ability to communicate. They become little social scientists!

As they grow, children learn to build their personalities, and interact with others to create and sustain relationships.

By building their own personalities, they are learning things about themselves: What things do they like, what don't they like, how they are feeling at certain moments, or how they manage themselves when things don't go their way.

At the same time, children are learning things about other people through interaction, such as how people respond or react to various situations.

It's important for us as educators to foster this self-awareness through activities and discussion, so I've put together a series of ideas that are designed to do just that!

"All About Me"

Let's start with an All About Me Book. This combines art with literacy and social/emotional development.

I like to start and finish the year with this project. By comparing the two books, the one created at the beginning of the year and the one created at the end of the year, parents will see, in a concrete way, how much progress their child has made over the course of a year.

This is the kind of project you can do throughout the year by simply changing the theme. Start with something like, "My Favorite Things" and focus on the colors a child likes, favorite foods, pets, games, sports, clothes, places to travel, etc.

To make a simple book, cut out "gingerbread" people from plain or coloured paper. Stack the shapes together, then staple one side. Alternatively, you can simply trace the gingerbread people shapes onto sheets of paper and ask students to write their facts on the insides of each tracing. For a quick and easy way to make these shapes, try our R51448 Paper Doll Pad. Hand out 5 pages to each student and ask them to draw pictures or write words that indicate the things they like best.

One of our newest products is our R49143 All About Me Book. This large kid-shaped book features five accordion-folded pages that students can use to write and illustrate their stories. The books are perfect for combining art and literacy as well as exploring All About Me facts.

Incorporate science by relating students' favourite things to vari shaped pages of their books. For instance, draw a picture of favourit stomach. Draw favourite sports in the hands. Illustrate a swatch of c favourite colors.

I'm always amazed at what young kids know. When I first starte kids to write because I assumed that they knew only how to spell th words. Early in my career, when repeating this exercise of drawing various parts of the body, one girl drew a peculiar thing in the stom a seagull, so I asked her to clarify and she stated that it was the lette Learning from this experience, I often ask students (including early facts onto the All About Me pages. I now read their stories through

Learning About Emotions with Macaroni

Early years students are just developing their socio-emotional sk of projects, you can help them become more aware of themselves ar

Students are more willing and determined to foster good relatic them when they have a good base of socio-emotional skills. One o learning to recognize and respond to emotions.

Some basic human emotions that some students may identify are happy, sad and angry. There are more feelings to explore, but you can tailor this activity to incorporate as many emotions and feelings as you'd need.

Use a sheet of card paper as the base for gluing down macaroni shapes in the likeness of various facial emotions. Provide your students with different noodle shapes or use our R2111 Art-a-Roni® Colored Noodles in all the different shapes and colors. Provide white glue and a glue spreader.

Draw a basic face onto a paper plate or Roylco's R51449 Face Pad with eyes and a mouth to indicate the first emotion. Ask students to identify the emotion and then share an experience when he or she had felt this particular emotion.

Instruct your students to arrange the macaroni on the card sheet to copy the emotion on the plate or even come up with their own! Once the students have an idea where they would like to place the macaroni, lift up each individual piece and dab a bit of glue onto the card. Press the macaroni down on top and leave to dry.

What is Your Super Power?

It is tricky to teach children about an abstract concept. By that I mean something like design. What is design? What does it mean to you? To young children, design is a foreign word that they have yet to learn. But by asking students to think critically about their art, we are teaching them concepts of design—about placement, thoughtfulness and meaning behind the art!

This isn't to say that the process isn't important—it most certainly is. However, for students to build a full arsenal of critical thinking skills, they have to think about not only the process, but the end result.

In other words, we as educators have the duty to plant the seeds in our students that behind every design there is meaning. This activity helps you do just that!

Notice the difference between the bottom mask (drawn first) and the top mask (drawn after)!

First, start with Roylco's R52097 Superhero Masks. Give your students markers, crayons and collage materials and ask them to start designing their personalized masks anyway they like. While they are actively decorating their masks, take a moment to wander around and observe some of the artistic decisions taking place. Ask your students to clarify why they chose a specific color or pattern for their mask. A typical response might be, “It's my favorite color!” In that case, you can continue the conversation further by asking your student his or her favourite superpower.

After you hear a response, ask them how the colors or patterns he or she chose might be related to their superpower. This is a question that gets students to think more critically about their art. It plants the seed for next time they make decisions on how to decorate their art.

Encourage students to roleplay their superpower. When they go home, they can explain to their parents all about their superpower!

Emotion Exploration

This is a great activity for working in pairs! Set up students with Roylco's R4959 Mix and Match Emotion Masks and let the fun begin!

The masks feature a variety of different expressions using eyes and mouths. Use the handles to hold the masks up to your face and instantly change your mood. Students can use the masks to learn about emotions.

You can even make up your own emotion using an unexpected combination of eyes and mouth expressions! Alternatively, go online or search through magazines to find a variety of different expressions.

Once your students have found an emotion they would like to keep, take pictures of the kids holding the masks up to their faces. In addition, students can draw the emotion onto Roylco's R51449 Face Pad or a paper plate.

At the end of the day, children can take their artwork home and explain the emotion they have illustrated to their parents.

Finger Puppet Fun

Make a finger puppet theater! This puts you at center stage to tell stories while focusing kids' attention. Making the puppets is easy. Here is a technique to create a craft that you'll want to use over and over again.

You will need a round plastic food container that's been thoroughly cleaned and has its lid removed, a stretchy woven glove (from the Dollar Store), felt, pompoms, googly eyes, scissors, masking tape and a hot glue gun. Start by cutting off the bottom of the plastic food container (about 1/4 of the way up). This will allow your hand to get through and into the puppet, and acts as a frame for the puppet. Line the cut edge with a strip of masking tape to prevent the plastic from scraping your hand. Pull the glove over top of the plastic container.

Each glove finger can be designed to look like a character using the felt and pompoms or you can make them into generic characters for a wider range of stories you make up yourself. Since I wanted to be able to retell any story with the finger puppet theater, I turned the puppets into little puppies! I cut almond-shaped ears from the felt and glued the pompoms and wiggly eyes to the center of the each glove finger. In addition, I really wanted the puppies to look like puppies, so I bought baby-sized hair elastics and wrapped them around the glove fingers. This made the puppies look like they were wearing collars! When you wiggle your fingers, the puppies move. It's both dynamic and very cute.

In addition, make a full class set of finger puppets featuring your students' class photos! Use the finger puppets to tell stories, sing songs or introduce fun lessons during circle time. You can either keep the original photos or photocopy them. Cut sheets of Roylco's R15243 Fabulous Fabric Craft Paper into strips about 3-4" (7.5-10 cm) wide across the short side of the page. Roll the short sides of the paper strips together and secure with tape. This will make your basic puppet shape. Cut students' faces out from the photos and tape to the front of each puppet. I don't worry about adding in arms or legs as the puppets are too small to add in these features.

If you would like students to make their own finger puppets, photocopy their photos into black and white. Give them crayons or markers to color in their hair, eyes, lips and face. When finished, glue or tape onto the finger puppet. Students can use their finger puppet to present five of their favourite things to the class!

Use the puppets in the classroom or send them home with students. Encourage students to put on a puppet show for their parents!

Kente Weaving

African Kente is an important part of Ghanaian culture, dating back to the time of kings. The original Kente designs were made of baskets woven with colorful raffia. In fact, that's how the name of the woven design "Kente" came to be used to describe this practice as it means "basket." This practice later progressed to making long lengths of cloth. Each rectangle of color woven into the cloth represented something, meaning that as the colors were woven together, the cloth could be read like a story or history lesson!

Roylco makes paper that is modeled after the principles of Kente, R15273 African Textile Paper. Use the paper to make paper dolls or headbands for students in celebration of Black History Month! To make your own Kente design, use Roylco's R15314 Super Slick Paper. Each person can choose various colors to represent him or herself. For instance, if a student's favourite color is blue, her favourite food is a carrot and her favourite sport is soccer, the student may choose blue as the base for her weaving mat, and orange, black and white for the weaving strips. Alternatively, students can go home and ask parents and siblings for their favorite colors and incorporate them into the weaving projects.

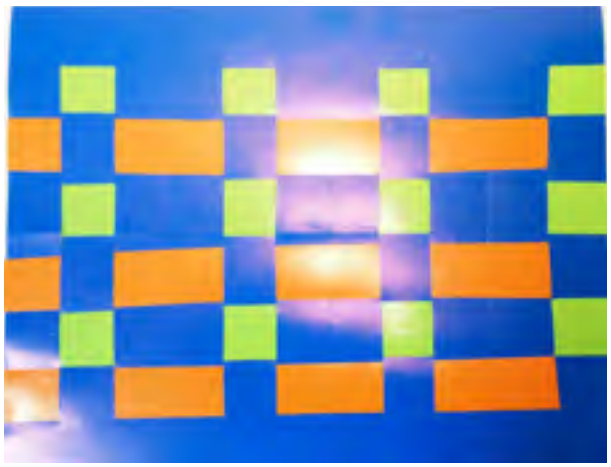
Fold in half and cut slits 3/4 from the fold line.

Pick sheets of Super Slick Paper in your favorite colors and cut into weaving strips.

Choose another sheet of regular construction paper or Super Slick Craft Paper as the weaving mat. To make an easy weaving mat, simply fold the paper in half and cut slits from the fold side to about ¾" (2 cm) towards the edge of the sheet (don't cut all the way across!).

Weave the strips over and under the weaving mat slots. With the next row, alternate the start of your weaving and continue alternating to the end of the weaving mat or weave in patterns such as ABBA or AAB AAB, etc.

When kids present this to their parents, they can tell them what the colors signify and the history of Kente in Africa.



Big Weaving Projects

Weaving is a wonderful activity to help develop both fine and gross motor skills at the same time as developing pattern recognition. I wanted to find a way to create weaving activities that could be done on a big scale and with a small budget. I was inspired to create this activity when working with some customers in England where they do up to 40% of their classroom education outside of the classroom and in the school yard. My challenge was to create a big weaving structure that would engage both boys and girls on a limited budget and could be done both indoors and outside.

Many of you may have used chain link fences as weaving structures. Using a fence is a great way to stretch your resources. All you need is some ribbon or yarn and a chain link fence and away you go.

It is easy and quick to do, but it doesn't always produce the most exciting art. I did some online research and found a wonderful image of a young girl who had made giant butterfly wings out of garden stakes that are used to keep tall flowers from drooping over. I think this is fun and beautiful, but it also looks a little fussy to me. I know a few boys and a couple of girls who would destroy this in no time!

The same kind of garden sticks can be arranged to make a more sturdy structure. I really love this hut. I know the kids would love crawling and playing inside. The challenge is that again, it's a little fussy and time consuming to make. I was looking for something easier but effective.

Then one day I was at our local Dollar Store and found some crazy Halloween decorations that looked like long, colorful springs. I bought them without knowing what I was going to use them for.

When I was looking for a large scale weaving project I remembered those Halloween-colored springs and thought they might work well with our Straws and Connectors™.

In the past I used our Straws and Connectors™ to create large scale, but simple weaving projects. We would stack cubes on top of cubes and use wide rolls of colored paper to weave through these cubes. It was a challenging project, but not overly engaging to the children. I like the idea, but we needed to "fun it up" a bit.

I hauled out our well used box of Straws and Connectors™ and I showed the kids how to make a cube and then weave the long spring-like material through. They were intrigued.

We went outside and the children used the directions in the box to make a hut and then started weaving the springs through. They really enjoyed making the hut, but the weaving was a challenge. I could tell they were getting frustrated so I intervened and asked how we could make it easier. One of the boys simply said that we should cut the springs. We tried that and it worked perfectly. To my surprise a number of things then happened.

We were outside and the day was moderately windy. The roof on the Straws and Connectors house was just placed on top. The kids wanted to hold the roof on more securely so they used the long string strips and wove the roof securely in place. I noticed that both boys and girls were really getting into it.

I noticed a few other things, too. There was one girl and one boy who usually preferred to work on their own, yet in this activity, they eagerly worked with the other kids and shared their ideas. I'm not exactly sure what brought them into the conversation when they had been so reserved at the beginning of the year, but I think it had a lot to do with their comfort level. The boy loved building so he contributed to the hut and then must have felt a certain level of pride so he continued with the weaving. The little girl, on the other hand, hadn't engaged in building but was eager to weave. I loved the fact that it was her suggestion to "weave" the roof onto the hut and all the other children thought it was a great idea. I feel that experience gave her confidence so later she suggested *not* cutting the long springs and challenged the other kids to weave the entire strip through. She even came up with the idea to fold the long length of spring in half to make it easier. Again, all of the other kids took her direction and started weaving. In no time they had easily accomplished something that had been impossible only a short time before. Now they could easily weave a strong structure.

Then one of the boys started to color coordinate his weaving to the color of the straws. It was fascinating to watch. Not only did they make a stronger structure, but it was also more beautiful. Overall, this activity was a big success and it showed me once again that children can engage in activities and bring their own strengths to them in meaningful ways. I knew that the two children who had been reluctant to engage with the other students would be more willing to participate in the future. All it took was finding the right activity!

Simple Weaving Projects

Weaving is a great activity to develop children's hand/eye coordination while introducing patterns. You need to teach children how to weave, so it is a great opportunity to start giving students instructional lessons.

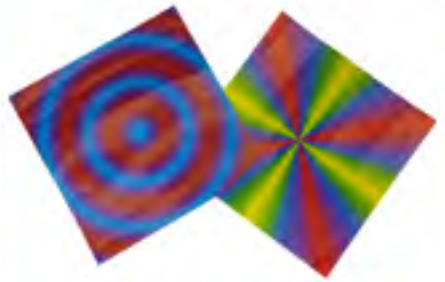
You can use construction paper, but I find that it is just a little too thick. Weaving is easier if the paper is thinner, the sheets are relatively small and the paper is shiny to reduce friction.

Our R16004 Rainbow Weaving Mats are perfect. They are only 7 x 7" (18 cm square) and are easy to work with. The fun, bright patterns are attractive for young children.

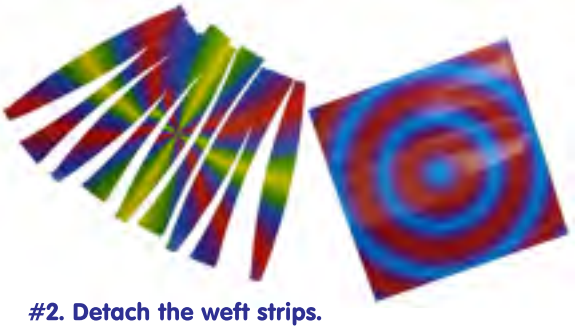
To practice weaving, I ask the students to "weave a quilt." Some children don't know what a quilt is. That's too bad because paper quilt making has lots of potential in classrooms for teaching patterns and even math. You can tell your students that a quilt is a large blanket made up of smaller squares or you can bring in an example or look for examples online.

Give each child two squares for the Rainbow Weaving mats. One square is the warp (one entire sheet of paper) and the other is the weft (the individual strips of paper). Ask the students to separate the weft strips out of the full sheet by simple ripping the connecting pieces at two ends of one sheet of paper.

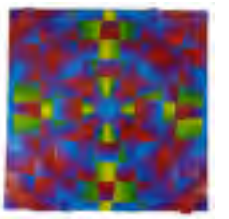
Weave the weft strips through the warp sheet.



#1. Select your sheets



#2. Detach the weft strips.



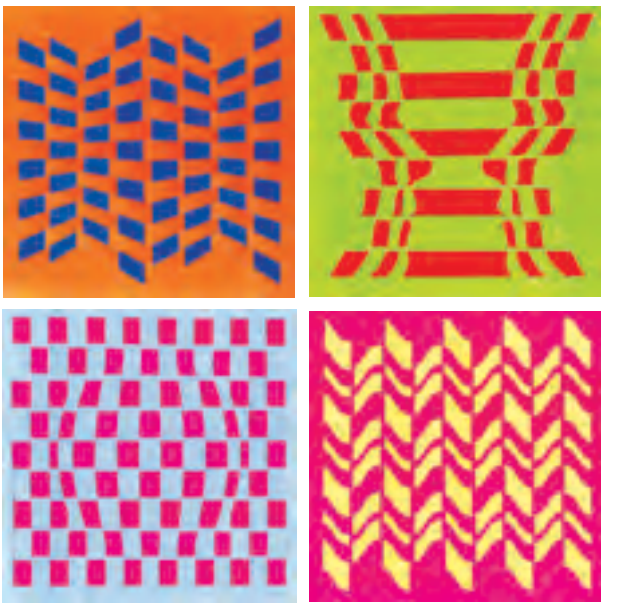
#3. Weave the weft through the warp.

Once your students are comfortable with the process, work on larger projects. Try weaving a classroom quilt! Each child gets two sheets of the Rainbow Weaving Mats or some other square weaving project. Each child weaves their own quilt block and then as a class, make one large quilt. We used our straight R60160 Constructa Clips to assemble the quilt. These clips use rubber teeth to hold paper or thin cardboard together at different angles. It is the perfect tool for the classroom quilt because it's easy to assemble and won't crease or in any other way destroy the children's projects. It's as simple to take apart as it is to put together. Leave the quilt on display for several days before returning the artwork to the children to take home.

For a different take on the project, ask children to draw their faces or add a photograph to the weaving projects. It personalizes the craft and helps transform a simple paper project into a treasured keepsake.

Simple Weaving Projects, continued

Try fancy weaving! Cut out wavy, zigzag or scalloped lines in your weaving mats and let children weave through straight paper strips to create interesting papers. It is easy to do on your own or you can use Roylco's R16018 Op Art Weaving Mats.



Make your own fun friends! Use weaving to make clothes on large size people weaving mats. You can make your own by folding a sheet of paper in half. Cut out a "gingerbread man" shape along with slits in the body to use to weave the paper strips or you can purchase our R16006 Little People Weaving Mats.

Weaving a basket sounds like a difficult challenge but if you start with a fruit basket, available from the grocery store when you buy strawberries, tomatoes and blueberries, or use our R16003 Classroom Weaving Baskets, it's much easier.

These baskets are easy to use and produce beautiful results. Young children can simply weave through the thin strips printed with a rainbow of colors while older children can make patterns or try out different techniques such as weaving strips of paper through other strips of paper, not just the plastic slats. Our kit comes with plenty of rainbow paper strips or you can buy the plastic bins on their own and create your own paper strips.

Make a beautiful hanging lantern! Start with one of Roylco's R16019 Placemat Weaving Mats. Fold it in the middle and then fold each side down towards the center fold. Unfold and roll into a tube. Weave the paper slats through the slits in the top and bottom of the lantern. Tape the tube closed and add a pipe cleaner hanger. Your lantern will bob nicely in the wind!

Round Weaving Mats

After your students are familiar with simple paper weaving, give them a challenge with Round Weaving Mats. Take a look at our reproducible artwork (following two pages) for templates to cut out. You can use any paper you want, but try to find something smooth, strong and bright! The paper should be strong without being too thick (thick paper is harder to weave than thin paper). I used our R15314 Super Slick Paper because it is easy to weave and produces beautiful results.

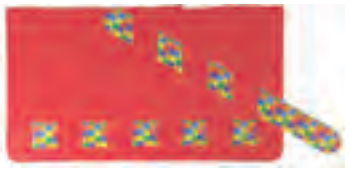
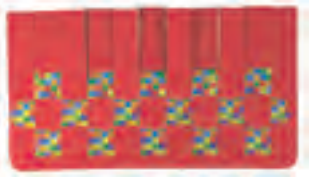
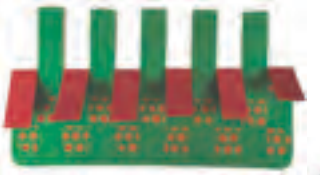
Each child needs two sheets of paper. The spiral-cut sheet will weave into the straight-cut sheet. If you are cutting these out, you can stack several sheets of paper together and cut with scissors.

Integrated Weaving Projects

Once you are comfortable with weaving, it's time to move on to a more complicated craft. Let's weave a hot air balloon! I love this project because it incorporates techniques that children will be able to use for other projects while still keeping weaving in the forefront. After all, what is a hot air balloon without a woven basket to carry people!?!



1. Start with 1 sheet of R16019 Placemat Weaving Mats. Cut off 1/3 of the sheet (for the basket).
2. Take the other part of the sheet and curl it into a tube. Tape shut overlapping one strip of paper.
3. Tape opposite strips together. Gather all of the paper loops and staple them at the top to make the balloon.

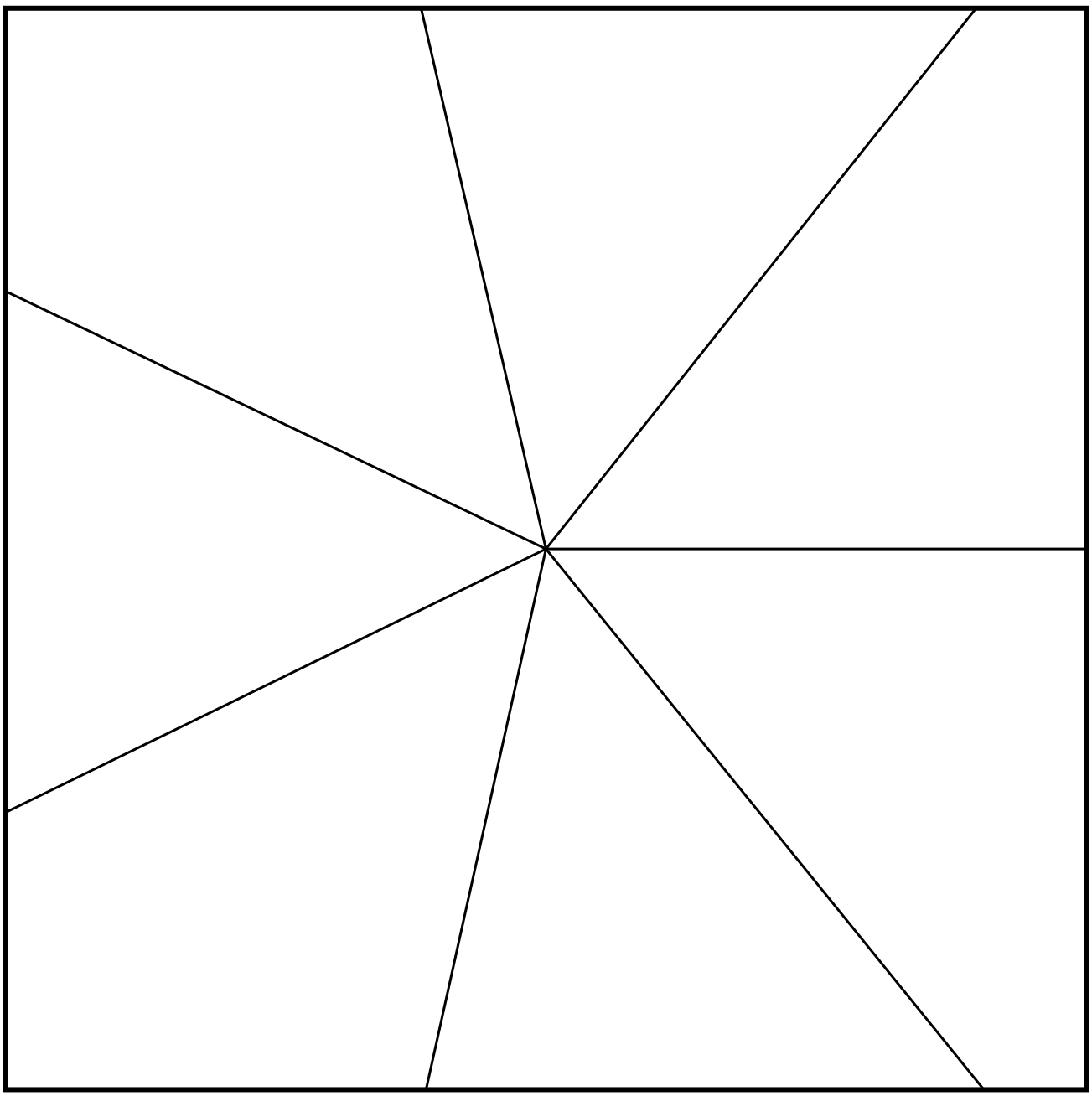




4. To make the basket, weave three strips of paper through the remaining section of the weaving mat. Note: This is a very simple method for weaving.
5. Fold over the remaining unused paper strips and tape down.
6. Fold the basket in half and tape closed. Open the basket and fold again in half to make a 4-sided cube.
7. To complete, tape the basket onto the balloon.



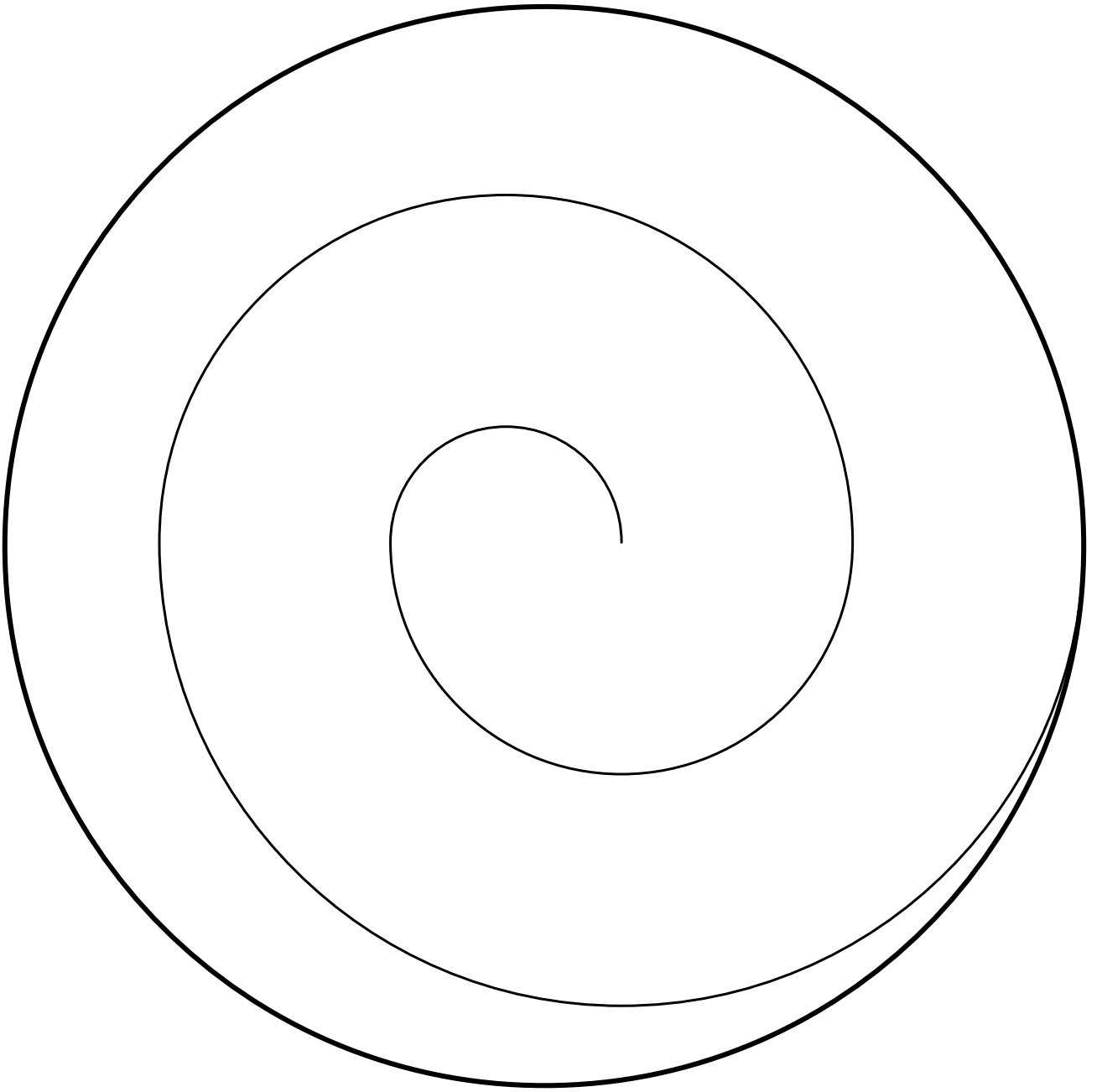
Round Weaving Mats

Reproducible Artwork #1



Round Weaving Mats

Reproducible Artwork #1



So I Hear You Like Science...

Children are natural explorers. Their brains are still developing, and as such, are constantly soaking in information. They are eager to explore their environment and eager to experience new things. Have you ever seen a child become mesmerized when witnessing something new? Her eyes grow wide and she stops everything she is doing to observe what will happen next. Perhaps if the spectacle is interesting enough, the child will say, "Do it again!" or shout out in surprise and excitement.

The best way to encourage this enthusiasm is by learning about science.

Before we begin, let's take a step back and think, what is science? Science is an all-encompassing term for how things work in the world. Everything from biology, the study of life, to geography, the study of the Earth, is part of science. From observation and experimentation, we understand how things work in the world. But for young children, everything is still relatively new and unknown. This is one of the many amazing aspects of teaching—we get to be a part of their explorations!

Paper Kid Bodies

Young children are interested in how their bodies work. Here's a great way to introduce the skeleton and organs of the body. You will need a large sheet of paper or Bristol® board cut into the shape of a human body, or use Roylco's R75401 Big! Huge! Fingerpaint Paper Kids.

Tell the students that you are going to explore what's inside their bodies on paper. Give your students references of x-rays and organs to draw onto the Paper Kids. You can locate these images online, but beware, as many images contain graphic depictions of things that can be a little disturbing. When you have selected the appropriate bone and organ images to use, print them out in black and white. Make sure you laminate the printouts to ensure that the laser ink won't scratch off when children use them.

Alternatively, you can use Roylco's R5911 True To Life Human X-Rays® and R59254 Look Inside Me MRI Scans, which are designed to have the look and feel of real x-rays and are protected by a special scratch-proof coating! Both products are the exact same scale so they can be used together. The X-Rays and MRI Scans can be used as a giant 5' (150 cm) puzzle to assemble the entire body of a young adult. You can discuss the various parts of the body as students draw in the details on their Paper Kids. Encourage students to name the parts of the body when they take their completed artwork home to show their parents.

Chromatography Magic

Chromatography is the term used to describe how a mixture is separated into its component parts through a special method. Even though that seems complicated, it's really not! To make things easier, use our R2440 Color Diffusing Paper Flowers or a coffee filter that you can cut into a flower shape to see science in motion!

Color the center of a Color Diffusing Flower with one marker color. Use any regular type of marker for this activity, preferably a color that is secondary or tertiary on the color wheel like purple, orange or green. Mix one teaspoon of Epsom or table salts with 1 cup of warm water. Stir until all the salt crystals are fully dissolved.

Next, pipette the solution onto the center of the flowers. Students will love watching the solution push the different pigments apart and reveal what kinds of colors were mixed together to make that specific color.

Tip: Roylco makes fun pipettes to use for science and art projects. Check out our regular R5449 Paint Pipettes, our wonderful R54460 Squiggle Pipettes or our cute R54470 Junior Heart Paint Pipettes!

To impress parents at home, ask your students to explain the process to their parents. Kids can tell their parents that lighter particles travel furthest. The colors around the edges of the flowers are made from the lightest pigments which travel the furthest. Students can tell their parents this when asked how chromatography works! When younger students use scientific terms, it is remarkable, but using comparative words such as "lighter" and "furthest" is the icing on the cake!

Sun Painting

This is a cool activity to try on a hot sunny day when paint is most likely to evaporate fastest. The final result looks almost like magic, but there is a simple explanation for this that you can teach your students and they can share with their parents and caregivers. To start this activity, you will need a paint tray, diffusion paper such as Roylco's R15213 Color Diffusing Paper™ or coffee filter paper, watercolor paints and some beads or buttons. Try Roylco's R2184 Manuscript Letter Beads to add a literacy component to this activity, R2185 Math Beads for a math-art crossover or R2131 Bright Buttons™!

1. Spray the paper with water.

2. Pipette watercolors onto paper.

3. Place buttons on top.

First, soak the paper in water. Hold up the paper over a paint tray to release any excess water. Lay the paper down onto a clean paint tray, then pipette the watercolor onto the paper until it is fully covered. Place various beads and buttons onto the paper. You can arrange the beads to spell a name or word. Once you are finished arranging the pieces onto the painting, set the whole project outside in the sun to dry. Check the paper often while it is drying. Drying times will vary depending on the temperature and the intensity of the sunlight. Alternatively, place the artwork underneath the direct light of a lamp and leave to dry for 5 hours. After drying, remove the buttons and beads to reveal a surprise! Underneath, you will notice that the spaces where the beads were placed are almost colorless. The surrounding area, however, is still saturated with paint! Why is that? Can you guess?

Water, especially in a thin layer, evaporates under the direct rays of sunlight. This is because the air doesn't have enough moisture in it, and as a result, draws water.

But why are the areas under the beads and buttons colorless? This is because all water on the painting must evaporate, even if it is trapped. As the water that is exposed to light evaporate, the water under the objects moves out from under the objects. This is called Capillary Action. As a result the paint flows out with the water from beneath these objects which results in white spots.

Although this explanation seems complex, encourage your students to explain evaporation to their parents by simply saying, “Sunlight evaporates water.”

Capillary Caterpillars

Use physics to create a beautiful bug! You'll need Roylco's R15212 Color Diffusing Paper™, watercolor paint or food coloring, plastic cups, scissors and markers.

Start by instructing the children to cut a strip of Color Diffusing Paper the full length of the paper and about 2" (5 cm) wide. Note: You can substitute a high quality paper towel for the Color Diffusing Paper, but it doesn't work as well. Fold the paper in half several times to end up with a small square of paper. Cut off the corners to make it almost oval shaped. Don't cut off the folds!

Unfold the paper and you have a long, scalloped strip of paper. This will be your caterpillar's body.

Next, partially fill three or four cups with paint or food coloring. Fill with additional water as needed so that the paper strip can be inserted in all three cups. Tip: Start by folding the paper strip in half and inserting the middle into the middle cup and then stick the two ends into the remaining two cups.

Let the paper absorb the paint. As it absorbs, the paint will draw up the paper strip. This is called Capillary Action. The water from the paint cups moves because the fibers of the paper absorb it. Water attracts more water so as the molecules of water are absorbed, they attract the molecules of water behind them which provides a chain reaction and continues to pull the paint along the paper strip. This same reaction occurs when you lay a paper towel over a spilled glass of milk or water.

This process takes some time. Start the experiment in the morning and continually monitor the progress of the paint over the course of the day. If possible, remove the paper strips at the end of the day and allow them to dry overnight. Add some caterpillar details with markers and take your new friend out into the garden!

Paper Bag Puppets

Making paper bag animal puppets is a great way to introduce animal characteristics to children. The study of animals is called Zoology and children love it. Use Roylco's R15256 Amazing Animal Paper™ or draw animal details onto the paper bags.

Cut simple shapes out from the Amazing Animal Paper™ or any appropriately colored paper. Cut out circles and triangles and glue onto a paper bag. Make eyes, ears, noses and mouths from these basic shapes. Encourage students to research fun facts about their particular animal either through the internet or using reference books.

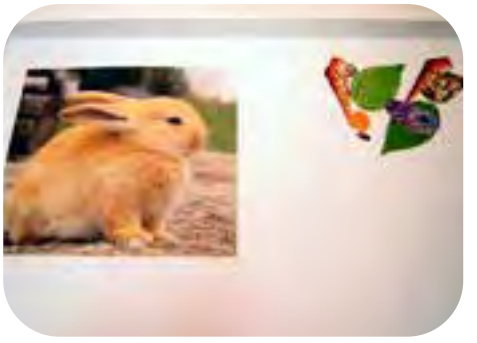
Students can present their findings to the class in character as their specific animal. Make up a name, voice and personality for the animal character, and present the fun facts as if the animal were talking about him or herself.

Ask your students to share these interesting facts with their family and friends!

Nature Collage Problem Solving

Have you ever been on a nature walk and noticed familiar shapes in the foliage or the clouds? That's because our brains are programmed to find familiarity in the images we see. Sometimes, a piece of bark on a tree can look like a bird or a squirrel when actually, it is only a piece of bark! Roylco's R15290 Nature Craft Paper presents a plethora of nature-inspired images, such as leaves, twigs, shells, flowers and so on. Students can use the Nature Craft Paper bits to make illustrations of familiar things.

Give students a theme, such as faces, animals or vehicles. Have reference photos available. Ask them to pop the Nature Craft Paper pieces out from the backing paper. Alternatively, you could provide students with old magazines to cut shapes from. Sort them according to similar shape and color. This is a great way for students to organize their workspaces before they get started on a project. In addition, it helps students to think critically and decisively about the shapes and colors they are using.



Ask students to recreate an image you have selected or come up with their own representative picture. Use the cut out pictures or the elements from our Nature Craft Paper and arrange and glue down their designs onto paper to take home.

While students are busy creating the artwork, tell them about the nature of "collage." The terms comes from French, *coller*, which means to glue. Artists have been creating beautiful collages for a long time. Probably the most famous collage artist was Henri Matisse.

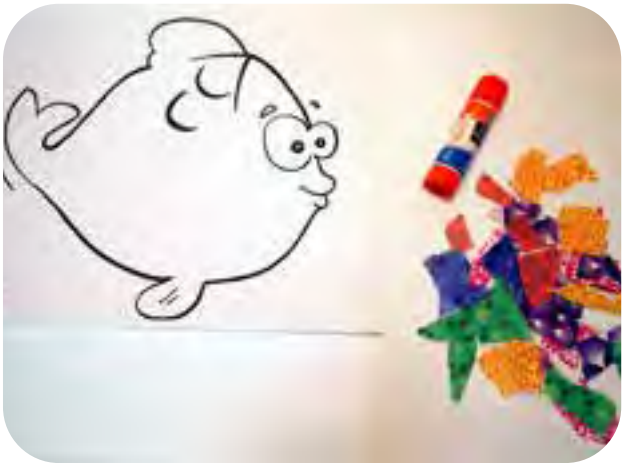
Tearing Paper Shapes

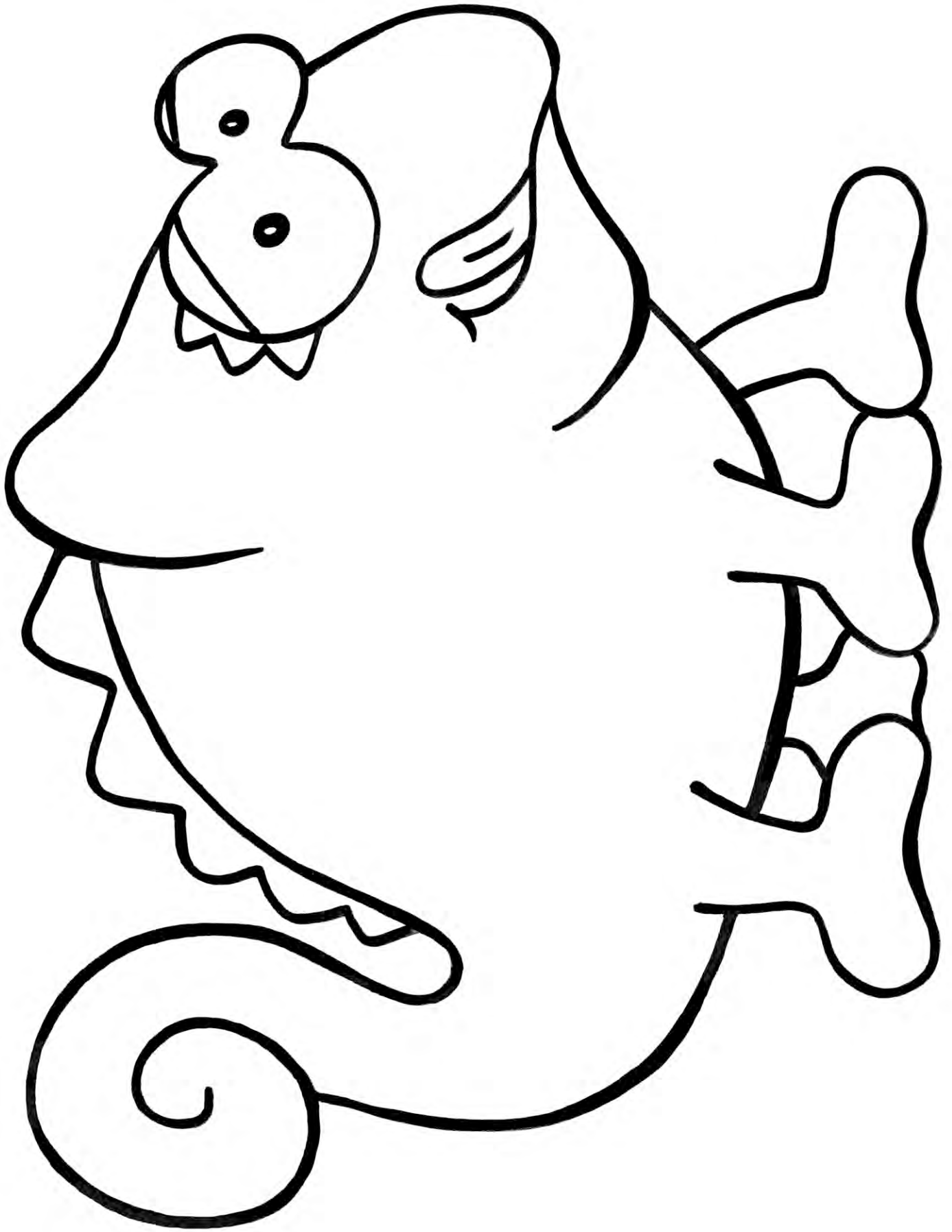
Even though the title of this activity may appear a little unexpected, it's a perfect way to encourage students to create purposeful, sensory-rich art. Use the reference images provided in the next few pages as a starting point for this activity. You can find similar images online.

Photocopy the images and provide them to your students. The objective of this activity is to fill in the image with torn pieces of colored paper that relate to the image. You will need decorative paper, such as Roylco's R15203 Decorative Hues Paper or R15204 Economy Origami Paper and some glue.

I suggest giving your students reference pictures so that they can see what kinds of colors are incorporated into the animal imagery. You will be surprised at how colorful some animals can be! For instance, a regular frog is a dark, muddy brown or green color whereas a tree frog has rich markings. As students tear their material, they will be engrossed by the sound and sensation of the tearing action. After some time they will focus on tearing exactly the right sized pieces to fit inside of the image outline. Talk about the variations in colors and pattern as students work on their creative designs.

This is a great activity to use up scrap pieces of paper! At the end of the day, students can take home their artwork and describe the animal they are representing to their parents.





Animal X-Rays

Roylco's R5910 Animal X-Rays© feature 14 images of animal skeletons and their matching picture cards. The x-rays are covered with a scratch-proof coating so they look and feel like real x-rays! This beautiful set of x-rays is a wonderful classroom resource for teaching animal science. Alternatively, you can try to locate certain x-rays online, print them off and laminate them for future use. You will need to find accompanying full color images of the animals so students are able to identify them. With this in mind, let me show you a wonderful activity that your students can do with the x-rays.

For this activity, I only bring out the x-rays and save the full color pictures for later. Hand out the x-rays to your students and let them explore the images over a light source, such as a window, light table or Roylco's R59601 Educational Light Cube. The glow of the light source will shine through the clear parts and help them see the details in sharp contrast. Ask your students to imagine what the animal looks like with skin, fur, feathers or scales on top of the bones.

You can further ask students to compare the bones between various animals. Do they have similar or different spines, hips, shoulder blades, skulls and so on? Which are bigger, smaller or just different? Hand out sheets of copy paper and pencils and ask them to put the x-rays up against the light source and sketch the outline. Later, students can fill in the outline with crayons or markers.

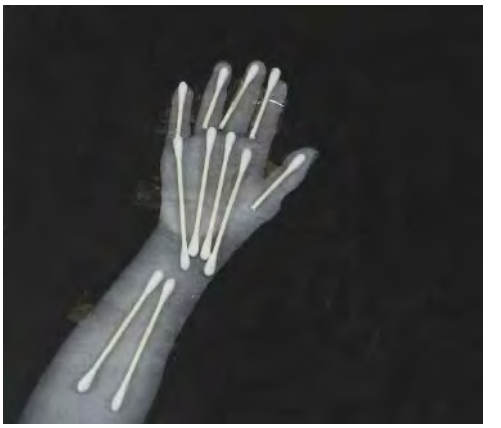
After reviewing the photos, I was truly amazed at the skill level that students demonstrated in their drawings! They looked closely at the body structures and were able to identify the animal without the pictures.

Along with their drawings, students will be proud to show their knowledge by describing the animal they have drawn to their parents and caregivers.

Human X-Rays

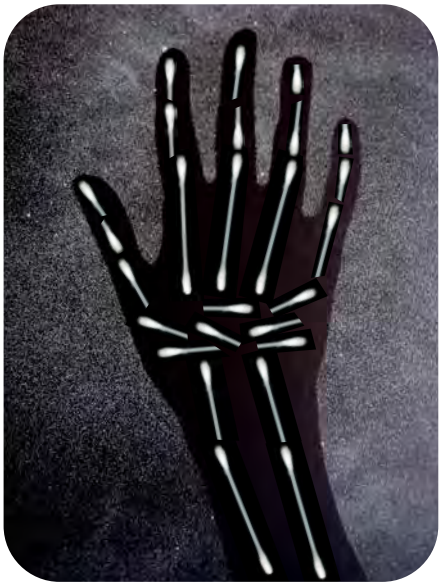
The human body is a fascinating subject to explore in science class! Kids love learning about their bodies, inside and out. Roylco produced R5911 True to Life Human X-Rays® as a classroom resource to teach children about the process of getting your x-ray taken, but they are perfect for studying anatomy.

The x-ray sheets are life-sized and printed with a scratch-proof coating for years of use! Remove the sheets from the package and hand them out to your students. Ask them to first figure out what part of the body is depicted in each x-ray. Compare hands to feet, knees to elbows and shoulders to hips. You can even compare them alongside Roylco's R5910 Animal X-Rays. What similarities and differences do your students notice between the x-rays?



Here's how to make your own x-rays! First, place your hand onto a sheet of black construction paper. Fill one of Roylco's R5419 Paint Bellows with a bit of white paint. Squeeze the bellows to release the paint across the paper and over your hand. If you have students who prefer not to get their hands messy, try this technique! Trace your hand or a friend's hand onto a sheet of 8½ x 11" paper. Cut the outline out and place onto the black construction paper and spray with the paint. Repeat the steps with the Paint Bellows. Let dry overnight.

Alternatively, simply photocopy your students' hands and arms. Encourage them to make polite hand signs. Tip: Integrate this activity with an introduction to American Sign Language.



To finish this last step, you will need a pack of cotton swabs and some white glue. Use the Human X-Rays as reference to recreate the bones in your hand. Glue down the cotton swabs to make knuckles and finger bones. You can even cut the cotton swabs down to a smaller size, if needed.

Students can take their "handmade" x-ray home and show their parents a few of the bones in their hands!

Stained Glass Artwork

Roylco's R15257 Stained Glass Craft Paper is a translucent, brightly colored pack of papers that are perfect for decorating paper Stained Glass Frame projects! For this activity, students will learn about the properties of color and light to create their own unique stained glass images.



First, you will need to grab a sheet of contact paper. Cut into smaller squares and peel the backing off. Students can cut the Stained Glass Paper into various shapes. You can use sheets of colourful tissue paper in place of the Stained Glass Paper. They can either illustrate a picture or arbitrarily place the shapes onto the contact paper, but I love to encourage students to think about shapes and make geometric art. Guide students to overlap the shapes into each other and cover as much of the contact paper square as possible.


When the activity is finished, ask students to observe the areas where the special paper overlaps. What has happened to the colors in this area? It may be helpful to hold the sheets up to a light source such as a window, light table or Roylco's R59601 Educational Light Cube. Students will notice how the overlapped colors make new colors. This is a great exercise for students as they can then identify the names of the colors they are seeing.

Ask your students to explain to their parents that when they overlap two different colors, they create a new color! This is a beautiful craft to display prominently in a window.

Paper Airplanes

In this activity, we will be making paper airplanes and measuring the distance they fly! Even though this sounds like a math activity, we are really focusing on the science of flight. Experiment with different folding techniques and paper airplane designs to make the fastest or highest-flying airplane of them all!



You can use Roylco's R15263 Tie Dye Craft Paper, which features lovely tie-dye designs in a variety of bright colors, or use regular construction paper. Paper airplanes are super easy to make, but this will perhaps be the first time your students are introduced to this activity, so you'll need to work as a class to fold up all the planes. Take your time and make sure that every student is following the steps correctly.



At the end of the activity, organize everybody into a line and take turns throwing the airplanes into an open space. Encourage students to use vocabulary words to describe the trajectory of their aircraft's flight, such as “it curved to the left/right,” “it swooped down,” “it shot up so high” or “it plummeted to the floor.” To add a math element to this activity, measure how far each of the planes fly from the point where students are standing. At the end of the year, repeat the activity, but write messages inside the planes for their parents to read. Call these messages, “Airmail!”

Leaf Projects

Let's continue our study of science by exploring leaves. In our part of the country, leaves are a plentiful resource that children love. Whether it's watching the leaves come out in the Spring or jumping into piles of brightly colored leaves in the Fall, children are strongly attracted to Nature and leaves are the perfect partner.

Use leaves to introduce several scientific concepts to your students. Here are a few ideas:

• There are two kinds of leaves: broad leaves such as the ones we find on maple trees and that drop in the Fall. Conifer leaves are small, needle like leaves found on pine trees and stay on the branches all year long.

• Use leaves to talk about the changing seasons. As the world's axis tilts in the Fall, days become shorter and trees go into a hibernation state and they can no longer support the energy needed to retain the leaves. As a result all of the nutrients drain out of the leaf and they turn colors and drop off.

• Take a look at a world globe. Not everyone experiences seasons at the same time. While the northern hemisphere has Fall starting in September, the southern hemisphere is experiencing the beginning of Spring. People living in a band close to the equator don't experience Fall at all! Instead they have rainy and dry seasons. On the Fall and Spring Equinox, days and nights are almost the same length of time, about 12 hours. After the Fall Equinox, days become shorter. After the Spring Equinox, the days become longer.

• Leaves are green because they contain chlorophyll. Chlorophyll absorbs all colors of the spectrum except green. The leaves appear green because they reflect back the green light from the spectrum. The chlorophyll converts the energy of the sun along with the nutrients that the roots pull up from the ground to produce food for the tree. Tree sap, like the sap used to make maple syrup, is the food the tree needs to survive the long winter and prepare for the busy Spring season when it produces a whole new set of leaves.

• While leaves are producing food for the tree, they also produce oxygen as a by-product. We breathe oxygen, so the more trees we have, the more oxygen is produced.

The challenge to using leaves in art projects is that they simply don't last. They dry out, crumble and look terrible in a very short amount of time. We will talk about preserving leaves shortly, but for now, let's examine using leaves as a printmaking tool!

Leaf Painting

Making prints with leaves is easy. All you need is a fairly large sized leaf, some good quality paint (fingerpaint and acrylic paint works well), and some paper. Start by laying a leaf in a paint tray or cookie sheet. Trays help reduce the amount of mess you need to clean up after the project. Cookie trays are perfect because they are very stable, but they are also expensive and sometimes they aren't as easy to clean as they should be. We use our R7512 Fingerpaint "No Mess" Trays™ to make clean up easy. Leaves have two different sides. The top is shiny and smooth. The underside tends to be paler and has prominent veins. You can use either side.

Leaf Painting, continued

Give children a variety of paint colors. I like giving them a section of both bright and dark green paint in the Spring and Summer and red, orange and yellow in the Fall. Children can paint the leaves by swirling their fingers over the veins or they can strategically dab on paint one finger at a time. While this latter method is slower, it can produce some beautiful results, especially when mixing different colors.

If you have students who don't like finger painting, provide them with small rubber gloves or let them paint with brushes and sponges. More and more often we are finding that there are some children who don't want to get messy or parents don't want their children coming home with soiled clothing. That's a shame. If required, use paint smocks or simply ask parents to send their children to school in clothes that can get stained.

When the paint is still wet, help children lay a sheet of paper over top of the wet paint and gently, but firmly, tap down all areas of the paper. Lift off to reveal your print. Rinse the leaf with water and reapply the paint as often as you want. A healthy leaf will last for hours in the classroom before it starts to shrivel up.

To make higher quality prints, use our R54480 Paint Pad and Tray. Apply a thin layer of acrylic paint to the surface of the gel-like pad. Press a leaf over the paint. Leave the leaf in place and cover it, along with the surface of the pad with a sheet of paper. Press firmly down. Lift off the paper and you will see that the paint around the leaf has transferred onto the paper and has made an interesting silhouette print. If there is still paint left over, cover with a second sheet of paper and lift off to remove almost all of the paint.

Carefully lift off the leaf. You should see an image left over of the details of the leaf on the gel pad. Press a sheet of paper over the wet paint, rub gently and lift off the paper to reveal the leaf print. Let the paint dry. Add details or leave the print as a complete work of art. Send artwork home to parents and ask your students to explain the role of leaves in making food for trees to their parents.

This technique works with all kinds of textures and objects. Try making shell prints or use vegetable slices to make beautiful prints. It's fun, easy and produces amazing results.

The Paint Pad is easy to clean. Use a spray bottle of window cleaner or pre-moistened baby wipes to clean the surface of the pad. It will last for years.

Preserving Leaves for Crafts

Fall is a great time to do nature inspired crafts with children. It's the perfect time to talk about the changing seasons and introduce science topics such as the Earth's rotating on its axis to explain why we have seasons. Leaves are in abundance and easy to gather. Using them in crafts takes some preparation, but if you don't have extra time, you can use our R15334 Crafty Leaves or R15335 Spring and Autumn Leaves.

Start by gathering leaves. There are two popular methods of treating leaves. Martha Stewart loves leaves. Here is her preferred method of preserving leaves:

Cut branches from trees. Branches with lots of yellow leaves work best. Other leaf colors will change when preserved.

Smash the cut end of the branch with a hammer.

Fill a large pail with half a gallon of distilled water. Add 2 cups plus 2 tablespoons of glycerin to the water. The leaves will absorb the glycerin which will preserve them from the inside out. To help the branches absorb the glycerin add a few drops of surfactants such as Spreader Sticker (available at garden centres).

In a cool, dark area, stand the branches in the water and leave them to absorb the glycerin. After 5 days, test the feel of the leaves. They should feel supple. Some "woodier" branches, like Magnolia, will take up to 6 weeks to preserve.

After the leaves are supple and preserved, they will last for months. These types of leaves are perfect for wreaths, leaf arrangements in flower vases and mobiles, but they do not glue well.

The second method is a little harder to do. Start by selecting leaves and placing them between sheets of paper towels and pressing them in a leaf or flower press. After a few days, the leaves should be dry and flat. Place a towel on an ironing board and cover it with a sheet of wax paper (wax-side up). Sandwich a leaf between another sheet of wax paper (wax-side down) and press with a hot iron. Use a craft knife to cut out the leaves.

Alternatively, you can use our R15334 Crafty Leaves. They are printed on both sides with a very wide range of real leaf images.

Once you have your leaves prepared, here are some craft ideas.

Leaf Mobile:

One of my favorite things to do with leaves, especially the glycerin-preserved leaves or our Crafty Leaves, is to make a mobile. Either cut out a large spiral from heavy card or use our R51302 Nature Mobile Maker. Our Mobile Maker is nice because all you need is some thread. You don't need glue or tape. We have added clever notches that allow you or your students to attach the thread without gluing it. Decorate the mobile with crayon or paint and hang the leaves. It makes a beautiful piece of art for the children to hang in their bedroom.

I like using two different techniques for painting the spiral Mobile Makers. The first technique teaches children about color mixing. Start with yellow paint and add a drop of blue. Let the kids mix the paint colors to produce a bright green. Paint a section of the mobile and then add a couple more drops of blue paint to the bright green. The students can continue mixing, painting, adding more blue, etc., until they get a beautiful, graduated green mobile. Leave the opposite side white or decorate with crayon.

Leaf Mobile, continued:

The second technique teaches students about shades and tints. A tint is a solid color mixed with white to produce a lighter version of the original color. A shade is when you mix a color with black.

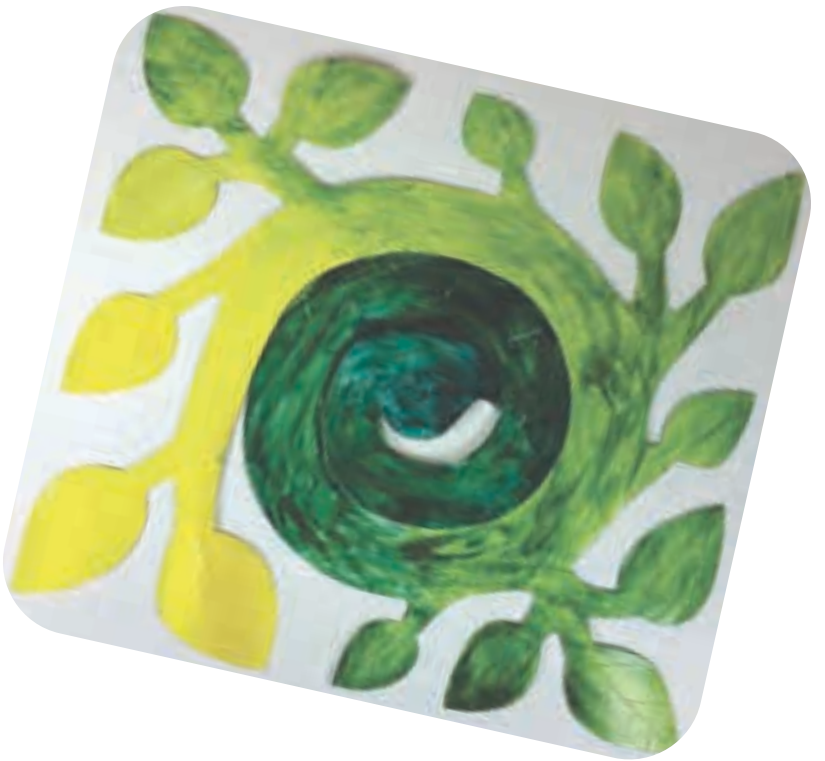
Squirt a small amount of green paint onto a paint pallete such as a paint tray or paper plate. Ask student to paint a small portion of the mobile with the paint.

Next add a few drops of white to the green and ask students to mix the two paint colors together to produce a lighter green. Continue painting.

Add a few more drops of white and mix well. Continue painting. Repeat this process until the entire mobile has been painted. This is a great way to demonstrate important paint techniques such as color mixing, hues and tints.

To string ornaments onto the mobile, simply cut a length of thread or thin string to the approximate length you need. Tape one end to the ornament. Pry open one of the notches and slide the thread through. Press down on the notch to hold the thread in place. Here's a tip: Be conservative with your thread length. The longer the thread is, the more likely it will get tangled up.

Besides leaves, hang other objects from the mobile. Try small acorns, pine cones and chestnuts. Hang pictures of family or friends.



Walnut Sailboat

Make a fun sailboat. All you need is a paper clip, ½ of a straw, half of an empty walnut, a leaf or one of Roylco's R15334 Crafty Leaves, some tape and a paper clip.

Bend the narrow inner loop of the paper clip up. Wedge the paper clip into the empty walnut. It should fit snuggly into the walnut so you don't need glue. If it fits loosely, try gluing the paper clip down.

Tape the leaf or Crafty Leaf onto the cut straw. Insert the bottom end onto the raised loop of the paper clip. Your boat is now complete.

Take it out for a sail. Objects float on water if they are less dense than water or if they are filled with air. The walnut should float. If it doesn't, then the added weight of the leaf sail is making it heavier than water. If this happens to you, try a different and smaller leaf as a sail or make the water more dense by mixing in salt. The more salt you mix into the water, the more dense the water becomes. As a result, more things will float in dense water than in fresh water.

Fun Fact: The saltiest naturally occurring water is in the Dead Sea which borders Israel, Palestine and Jordan. People have fun swimming in the Dead Sea because everyone floats. In fact, the water is so dense, a bowling ball will float in the water!

The water of the Dead Sea is so salty that nothing can live in it. There are no plants or fish!

By creating your own Dead Sea, you can try out sink/float experiments all over again with different results. Ask students to help you mix the salt into the water. It takes time and patience, so encourage students to help. If necessary, use warm or hot water to help dissolve the salt.

Leaf Embossing

One of the beautiful aspects of leaves is their shape and their wonderful vein pattern. It is easy to emboss paper and tin foil and children love using their embossed paper to make greeting cards. Paper embossing is a great Fall activity.

To emboss paper, all you need is some good quality paper like our R15314 Super Slick Craft Paper, some paper towels and a fresh, veiny leaf or a pack of our R5815 Leaf Rubbing Plates.

Start by taping the leaf or rubbing plate, vein side up, onto the back of the paper. You want the prominent veins to be pressed up against the paper. Lay the paper on the floor. Cover with the paper towels and step on top. Start by pressing delicately. Check out the results. If the paper is not as deeply embossed as you would like, place the paper on the floor again and cover with the paper towels. Step on it again. If necessary, jump on the paper to increase the pressure on the paper. It's fun!

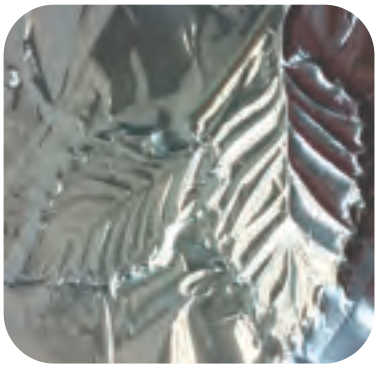
Once you have embossed the paper as deeply as you can, cut out the embossed leaf and decorate a greeting card or craft.

Embossing tin foil is very easy. The tin foil itself is fairly strong, but it is also easy to rip. Children need to be careful. This is a great lesson on how to regulate their behavior. If they are too rough or forceful, the tin foil will rip. If they are too delicate, they won't achieve the right results. Tin foil is inexpensive. You can buy a generic brand. It does not have to be thick. Let students experiment with the process to achieve the result they want.

Tin foil "banners" make great classroom decorations. Start by giving kids a strip of tin foil and ask them to lay out the rubbing plates so they fit under the foil. They need to compare the width of their pattern to the width of the foil. This sounds easy, but I don't give a lot of direction and let them discover how to place the rubbing plates to get the best results.

Once they have the pattern, they lay the tin foil over top and then, after removing their shoes, walk carefully over the tin foil to emboss the designs. It's wonderful to see how carefully they walk over the foil in one direction and then go over it again to emboss any missed spots. This method works beautifully, even if the rubbing plates shift slightly. The shifting images add visual interest.

After they have completed their embossing, I encourage them to cut out individual leaves or we work as a class to display the strip on a wall, bulletin board or door. It's a great classroom decoration.



Leaf Paper Making

Children love to make their own craft paper. Over the years we have experimented with all kinds of ways to make fun paper designs. Making paper in a traditional way is time consuming, messy and slow. It involves saving good quality paper scraps, shredding them in a blender and adding an adhesive. Finally, you need to spread out a thin layer onto a material like felt and place the pulp in a press and wait and wait and wait for it to dry.

I wanted to find a simpler solution that didn't take as much time while still producing wonderful results.

My solution started with replacing the high quality paper pulp with something easier to get. I tried all kinds of materials from dryer lint to paper towels and found that regular, inexpensive facial tissues work beautifully.

Next I experimented with all kinds of adhesives to bind the tissue paper and get nice details. Just when I found the perfect adhesive that was both inexpensive and safe, the manufacturer discontinued it. I had to start over.

And then by accident I found a great solution. All I needed was tissue paper, water and Roylco's rubbing plates. The plates are made of plastic so they are easy to use and don't require any real clean up.

I used a sponge to apply just a little bit of water to the top of the rubbing plate and then laid one sheet of tissue paper over the wet plate. I used the same sponge to completely dampen the tissue so I could see all of the detail.

Next, I placed another sheet of tissue over the first at about a 60 degree angle so the sheets wouldn't line up perfectly. We need the fibers of the tissue paper to be at different angles for each layer to increase the strength of the paper. I dabbed the tissue with a damp sponge to emboss all of the details.

Finally, I repeated the process with a third and final sheet of tissue paper. The paper takes a few hours to dry, so I like doing this at the end of one day so it is ready for the next day.

You can mix watercolor paint in with your water to add colour to your paper. Note: You can't paint the paper after it is dry because the details will be lost.

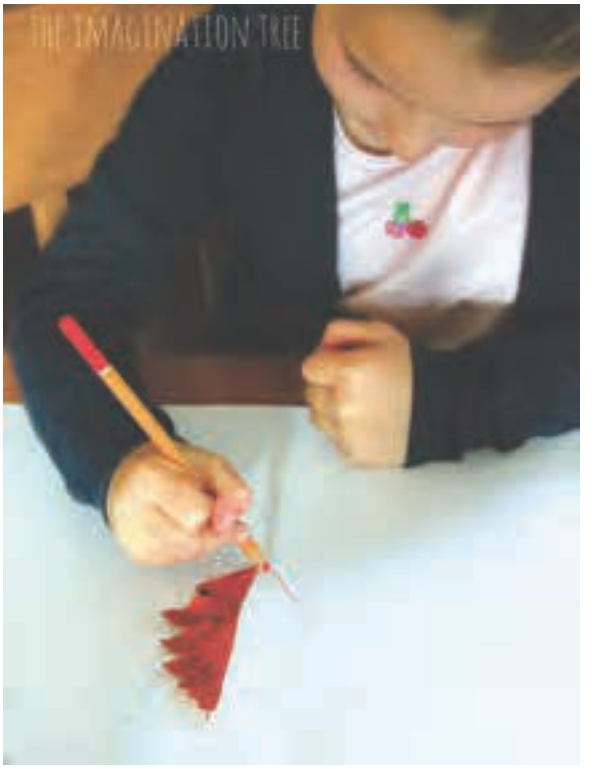
To make an even stronger paper, start by mixing two parts of water with one part white glue. It should resemble the consistency of milk. You don't need a lot of glue. Spread this mixture over the rubbing plate and use a sponge dipped in the milky glue to apply a thin layer to the first sheet of tissue paper. Add another layer of tissue and use plain water to emboss the details: You don't need to use the glue mixture again. Add one final sheet and let dry completely. Not only will your paper be stronger, it will also have a shiny finish that is very attractive. My favorite part is peeling it off the rubbing plate. It is a very nice sensation.

Make a great gift greeting card! Use the above technique, but add a few small flower seeds between the layers of tissue. When dried the paper can be glued onto a greeting card and children can explain to parents, friends and grandparents that the paper can be detached from the card and

Mirror Leaf Drawing

Mirror drawing is a classic art activity. It requires children to keenly observe an object and then, while using half of it as reference, draw the other half. It gives children strong visual cues while helping them develop their fine motor skills. When used with natural objects like leaves, it helps us explore the different parts of a leaf, the veins, the edges and the stem. We further develop an appreciation for these elements when we recreate them on paper.

While this is a classic art activity, I found a great example on theimaginationtree.com site. This is a great site for activities and resources.



Fall is a great time to do this activity because there are lots of leaves lying around and they are beautifully colored, which adds another dimension to your art project.

Gather up as many different types of leaves and work with your students to organize them in piles of different varieties. Sometimes children will separate the leaves by shape or size and sometimes by color. Anyway you want to organize these leaves will work, but always take an opportunity to discuss how students achieved the results they did.

Next, cut a few leaves in half and tape them securely onto paper. Hand out these sheets to students along with crayons or colored pencils. Ask the students to draw in the missing half.

I've seen children approach this in different ways. Some start with the outline and some start by coloring in the leaf. I think this is impressive. Some kids see the shape while others see the colors. Who is to say which approach is "right" and which approach is "wrong?" I say, let children decide what works the best for them.

This activity works especially well when you repeat it several times. Kids will get better at it once they discover a system that produces the results they like. Luckily, there are lots of leaves in the Fall and lots of different shapes to experiment with. Repeat this as often as you want, but do it at least three times to see the value of developing techniques.

When you have completed this project, be sure to tell students that when they take their artwork home, they can tell their parents that leaves are symmetrical, the same shape on both sides!

Math CAN Be Fun . . . Here's How!

I know, I know! When you think of math, you think it's hard or intimidating. I don't want to stress you out, but the greatest indicator of future math success is early math development. In other words, the better your students do now when you are introducing math, the better they will do in high school when it becomes much more challenging and a lot less fun. You will set your students on a path towards math success and you can do this through fun activities!

On this note, I've formulated the following projects to help make math engaging and fun. Each project is grounded in a subject that we all know and love—art! Not only will this make it more exciting for students to do, it will also make it easier for you to teach. Your students' parent will love seeing the math-art their children come home with at the end of the day.

Don't let math get you down!

Let's make it fun!

Tessellations Mural

In this activity, challenge students to use basic Pattern Block-inspired shapes and fit them together like pieces in a puzzle.

Cut strips of paper 6" wide by several feet long. Tape multiple strips together if needed. For the puzzle pieces, you can either trace and cut out Pattern Block shapes from construction paper or purchase Roylco's R15664 Tessellations Mosaics for a full range of pre-cut colors and shapes for creating wonderful tessellations designs. Paste one of the shapes, such as the hexagon shape, on the left side of the strips of paper. This will be the starting point. Students can select a specific number of pieces, maybe 3 or 5 depending on your class size. Each student takes a turn connecting one shape to the previous shape using glue. They must take care to match up the edges of the shapes without overlapping them.

After you complete the mural strip, add details with marker to make a caterpillar or cityscape! Repeat this activity at another time, but ask the students to pick just one color or one shape to fully develop their discerning abilities.

This is a great activity to use to describe shapes. Each of our shapes has sides and vertices (the point where two sides come together). Ask students to count the number of sides and vertices for each shape. At the end of the day, encourage students to describe the attributes of their shapes for parents.

Building and Patterning with Beads!

I've found that boys don't generally like beading or have the patience for it, but combining beads with building is something unique that will capture their attention! This activity focuses primarily on using beads to build upwards. Build a tower as high as you like, then measure it or count the number of beads used! To complete this activity you will need beads, such as Roylco's R20201 Super Value Building Beads and a bamboo skewer, thin dowel or drinking straw. Make sure you cut off the sharp end of the skewer before giving it to your students.

Give your students some play-dough to roll up into a ball. Flatten it slightly on the surface of a desk, then press the skewer, straw or dowel into it. This is the structure for the tower. Tell your students to start with one type of Building Bead shape, such as the disk or flower shape. Students must search for this shape, then thread it onto the skewer. When the first shape is placed onto the tower, tell your students to choose a second type of shape. Start with a simple combination like this and ask your students to repeat it.

Try other patterns such as ABB or AAB and so on. Older students can come up with their own patterns! Once finished, measure the height of the tower or take pictures of the structure to send home to parents!

To turn this activity into a classroom resource, take pictures of finished patterns, then print them off and laminate them. Show students in future classes so they can recreate the same patterns for their designs.

At the end of the day, you can encourage kids to bead their patterns onto yarn or string to wear it home. Depending on your budget, I like to ask the kids to bring back their beaded patterns so we can reuse the beads. Remember to ask your students to describe their patterns to their parents. They can simply define a pattern by telling their parents that patterns contain objects that repeat, or they can describe their patterns technically by saying it is an ABAB or AABBAABB or ABCABD pattern.

Pattern Tree

Children love this activity. While some children, mainly boys, can grow bored with an activity like stringing beads onto colored string, this project gives them a different focus for their stringing.

First, talk about the importance of patterns. We can find patterns everywhere in our day to day life. From the tiles on the floor, to the beat of our favourite songs, patterns are essential to how we communicate with each other and how we respond to the environment. Patterning is fundamental to our understanding of mathematics. For teachers of young children, our goal is to help children recognize, extend, create and copy patterns.

When children see a pattern they must recognize the similarities and differences between the objects. Pattern recognition is the act of becoming aware of regularities. Pattern recognition allows people to form generalizations and make predictions. Being able to see patterns as young children increases the likelihood that they will be successful in mathematics.

Now that we know why patterns are important, let's have some fun with them! Start by gathering up some fallen branches. I like to use the thinner twigs that fall from the trees after rain storms. I gather up a large handful and insert them into a plastic flower vase. I then add some play sand to give the structure some stability.

Next, I give the children as many different types of beads and buttons as possible. Each child gets a string and some beads. To make things easier, use a piece of masking tape to hold down one end of the string. Use a second piece of tape to wrap around the end of the string or try one of Roylco's R5601 Plastic Lacing Needles and tie it to the end of the string. These needles are easy to use because the eye is flexible. You can pry it open with your fingernail and then pinch it closed once you have threaded the string through.

Pattern Tree, continued

Children lace up their patterns using some recognizable similarities in the beads and buttons. If you want to start with something simple, use our R2152 Straws to String and encourage the kids to string up patterns based on color. For a bigger challenge, use our R2170 Brilliant Beads™. They have large holes to make stringing easier and come in a range of bright colors and fun shapes. The most challenge type of bead is our R20201 Building Beads. These beads represent one half of a larger bead. Children can make their own bead configurations. Try one type of bead or use a combination of all of them.

Once your students have created their pattern strings, ask them to explain what their patterns are. You are looking for patterns that are recognizable and can be extended. You should be able to ask the student, "What bead comes next?" and they should be able to answer.

When a student has successfully created a bead pattern, remove the string from the table and tie off the end. Kids can then take their string and add it to the Pattern Tree. This is a fun addition to your math center. One year I found that children started stringing the beads directly onto the thin twig branches of the tree itself. It was a fun discovery. Once one child started, everyone else wanted to get in on the fun!

Practice Patterning

Explore patterning as a group. Before undertaking any pattern project, work as a class to understand what patterns are.

I like to give each student a number or a letter. We then make a pattern using these numbers and letters. I might have one 'A' child stand at the front of the room followed by a 'B' child, followed by another 'A' child, etc., to achieve an ABABABAB pattern using children. Once everyone is standing at the front of the room, I ask each child to shout out their letter one at a time. It's a fun activity and can be extended into different patterns. Try: ABBABBABBABBA or ABAABAAABAAAABAAAAAB. There are many, many opportunities to develop patterning skills with this activity. Tip: Use our 49620 Dry Erase Tunics or R5905 "Hands Up" Dry Erase Answer Boards to organize students.

Once children are good at creating patterns as a group, ask them to create patterns individually.

Incredible Shrinking Tower

Often I have students who don't want to participate in "messy" art, but when they see how much fun it can be, these same students are more eager than ever to try for themselves. Here's a sensory art experience that will engage all of your students. Start with 2 parts foamy shaving cream and mix with 1 part glue. Be careful not to over-mix! Instead, “fold” the glue into the foam. Use Roylco's R57015 Junior Goo Spreaders or a Popsicle stick to apply foamy glue to small round cardboard discs. Our R15653 Paper Circle Popz work great. To protect desk surfaces, use a paint tray to contain the shrinking towers.

Start with a disc. Hold it up and scoop up some foamy glue and apply with the Goo Spreader or Popsicle stick. Set down onto the paint tray. Pick up another disk and add a splotch of foam glue. Layer on top of the previous circle. Keep going until the tower is finished, then measure the finished tower.

Leave the sculpture to dry for about 3 days. During that time, you will notice a dramatic change in the tower… it starts to shrink! Each day, measure the differences in height and compare the differences. At the end of the third day, the tower will have completely compacted and hardened so that it can be lifted as one solid piece. The shrunken tower makes a great take-home craft! Students can describe the process to their parents and even give them the numbers to further explain what happened.

100 Days of School Balloon Painting

The first few days of school can be intimidating for children, especially younger children who are just starting to learn their numbers and letters. You can help to make it easer with Roylco's R75423 100 Days of School Fingerpaint Paper. The goal of the fingerpaint paper is to celebrate the first 100 days of school by decorating it. Our goal is to teach children how to count to 100 by the 100th day. To complete this activity you will need a bowl of paint, air-filled balloons (or even air-filled latex-free rubber gloves available at the drug store) and paint.

Press the balloons into the bowl of paint and make a print on the fingerpaint paper. To add more interesting effects to the paper, squirt a secondary color into the center of the first paint color inside the paint bowl and dip the balloon into it. Keep making prints until you reach 100!

An alternative way to decorating the 100 Days of School Fingerpaint Paper is by encouraging students to dip their thumbs into the paint and make 100 thumb prints on the paper. This will help them get accustomed to counting up to 100 while decorating.

Make it easier for younger students and ask them to count to 10 ten times. This is an important concept because it introduces addition and multiplication.

Growing Measurement Skills

Kids love working in pairs, which is why this is a great activity for developing cooperative learning. In this activity, students will be measuring their heights and comparing the results to the overall class. Choose a wall in your classroom to designate as the "measurement wall." One student stands up against the wall while their partner places a hand on his or her head to indicate the correct height. Next, the students can work together to measure, cut and apply a length of masking tape up the wall.

Note: You may need to help the first one or after a while, they will for themselves.

was measured can then partner and measure the students have measurements, they portraits on sheets of Roylco's R51449 Face finished artwork at the Early years students may want to stop there, but if they wish to add arms and legs, give them sheets of paper to cut out more details and tape onto their measurement line or use the masking tape to make giant stick people.

When students are finished decorating their measurement lines, give them badges with numbers drawn on them. Make as many badges as there are students in your class and label them 1 to 20 or so. Students can work together to place the badges onto the measurement lines in order from shortest to tallest or vice versa.

When all the measurements have been sorted out, write them down and locate the median or middle point of the whole list. Finding the median is great for young students because it is very simple to do and clearly visible when looking at the entire row of stick figures. Finding the average is more complex as it requires a formula and is an abstract concept that younger children may not fully grasp. Plus, the word "median" is easy to remember because it is close to the word "medium" which can mean "in the middle." Knowing this, students can go home with a photo of all of the stick figures and tell their parents, "I am taller/shorter than the median in my class."

Straws and Connectors™: Exploring Quantities

When kids build structures with building blocks, they are creating temporary art. A child can spend all day in the building center, but unlike traditional art that is illustrated on paper and can easily be taken home, their achievements go unrecognized. That is why I am a firm believer in the power of taking photographs. Photographs can be posted up on a blog or emailed to parents to show them what their child has accomplished.

One of my favourite types of building toys are Roylco's Straws and Connectors™, not only because the concept is so simple but the kit encourages cooperative play.

There are several ways you can encourage students to use the materials: First, let them build organically. Maybe they already have their own scenarios in mind! Second, give them a scenario and let them as young architects and engineers create a solution. For instance, you could say something like, “Imagine you are going to live on the moon... What kind of house would you build?” Let students become their own architects! As they think about the shape and structure of their moon house (jungle house/underwater house or whatever scenario you come up with!), hand them a box of Straws and Connectors™ and let them explore their materials.

If I have a smaller group of kids, I like to give them a special challenge. It starts out small then gets bigger and bigger. The bigger the challenge, the better results you'll get from your students! It goes something like this. First, give your students a box of Straws and Connectors™. Ask them to form an outline of a vehicle. It doesn't have to be three-dimensional. Just a single outline on the floor is good enough. Ask your students to make a vehicle that is big enough to fit 3 kids inside. When they have finished this, ask your students to make one that fits 6 kids inside. How about one that's big enough for the whole class? What about two classes? And the teachers? The challenges can just keep going! This is a great exercise because it gives students a brief introduction to volume and capacity. Snap a photo of the vehicles as the children make them. Email these images to parents and ask your students to explain what they did as a group.

Reach for the Skyscrapers!

While we're on the topic of building, let's take a moment and look at all the amazing things you can do with Roylco's R60450 Skyscraper Building Cards! The building process is so simple: Take a blue card, fold it in half and stand it up sideways. Place a red scaffolding card flat across the top edges of the blue card. You can stack multiple blue cards together to make a sturdier base, or lay down multiple red scaffolding cards for greater surface area. Of course, our cards are wonderful, but you can achieve something similar by making your own out of cardboard.

Give students a task to complete using these cards. The objective could be to build as high as possible without toppling over. Once kids have finished building, they can knock the structure over, which produces a wonderful auditory effect.

We decided to take this one step further and challenge students to think critically about how they are building their structure, not just about reaching the end result (which is, admittedly, always the fun part!) To do this, we created a vibrating table.

Our R59630 Sensory Tray works great for this activity, but you can make a vibrating table out of a cardboard box and compact back massager. Just tape the massager onto the inside of the box and cover with a plastic tray like our R7512 Fingerpaint "No Mess" Tray. Cut a hole in the side of the box to access the massager and turn it on or off.

First, get your students to build a normal structure on top of the vibrating table. Using a stopwatch on your phone, time how long it takes for the structure to topple once the vibrating table has been turned on. Most likely, the structure will fall over almost immediately! Seeing

Challenge them to build tall or build wide. Time how long it takes for each structure to topple over after you turn on the vibrating table. Measure the height and width of each structure! Here are some other quick challenges for your students: How many storeys high can students make their structures? How many cards can they remove from a final structure before it topples over? How many cards does it take to build a structure?

At the end of the day, your students will enjoy telling their parents about the strength of their structures and how many seconds they survived the "earthquake!"

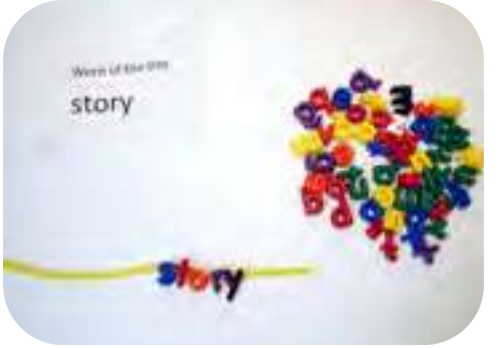
Love for Literacy

Foster natural reading and writing experiences in your classroom! Students will learn to expand their literacy skills while enjoying a variety of fun activities. There are many ways you can extend these activities. Simply encourage conversations with your students. When they are working away, always ask students to describe what they are doing and how they are accomplishing the task at hand. Something as simple as asking, "What letter is that?" or "Why did you choose these letters?" will inspire children to make connections about the letters, words and phrases they are exploring. The more often students retell and explain their ideas, the more their literary skills will expand!

Conversation is the pre-cursor to understanding written literacy. The more students use their words to describe things, the easier it is for students to learn to read and write. However, it is important to enrich students' literacy through other subjects such as art and physical education. This gives broader meaning to students' literacy skills.

Lowercase Letter Beads

Exercise your students' literacy skills everyday with Roylco's letter beads including R2184 Manuscript Letter Beads and R2186 Lowercase Letter Beads. Depending on your style of teaching, you may prefer to use either the uppercase or lowercase beads, but this activity can use both. A typical practice in most classrooms is to observe a "word of the day." For this activity, the word of the day will be the word students string up using the beads. Alternatively, students can string up their names.



You will need pipe cleaners and a whole package of Letter Beads to complete this activity. If you have a class of 6 or 8 students, you will have enough beads for each student to make his or her own word of the day. If you have a larger class, students can pair up to make the words. Find the appropriate Letter Beads and thread them onto the pipe cleaners in order. Stringing in this way presents some challenges. Observe your students and correct them when needed! Take pictures of students holding their beaded words, and email them to parents. At home, students will proudly tell their parents the word of the day.

Uppercase Beads Scavenger Hunt

Students LOVE a good scavenger hunt, which is why it's so easy to incorporate literacy into this activity! Sort through a set of beads and select one entire alphabet. Tip: Roylco's R2184 Manuscript Letter Beads are perfect because they are small enough to be hidden, but large enough to be found. Hide the beads throughout the classroom. Be careful not to hide the beads too well. Kids are energetic, and will stop at nothing to find every single one (even if that means removing things off shelves)!

Before sending your students off to locate the beads, divide the number of letters by the number of students and present each child with his or her own list of letters to find. In a small class that's fewer than 10, some kids will need to find 3 or 4 different letter beads. To make it easy for students to remember their letters, you can give them their letters in alphabetical order. To challenge older students, randomize the letters!

Once students have found all the beads, gather at the center of the room and work together to form the alphabet from the Letter Beads. At the end of the day, students will be proud to tell their parents that there are 26 letters in the alphabet and which letters they found hidden in the classroom.

Words Scavenger Hunt

Introduce students to basic words made up of 3 to 5 letters. You can use popular words, words of the day, or even relate the words to books you read together during circle time! For this scavenger hunt, the letters are hidden throughout the room, but this time, students must find the correct letters to spell words on their scavenger hunt list.

You can group certain letters together to be found in the same spot. For instance, you may give one student the word “the” to spell, another student may be looking for the word “those” and yet another may have the word “them.” In total, you have 3 T's, 3 H's, 3 E's, 1 S, 1 O and 1 M. When you hide the T's, hide them together in the same spot; when you hide the H's, hide them together in another spot. This tests students' understanding of the letters that make up their scavenger hunt words. When they approach the pile, they must take care to only remove as many letters as they need to spell their words.

Encourage students to tell parents what letters they found and the word those letters spell.

Chicka-Chicka-Boom-Boom Tree

I love the story of the Chicka-Chicka-Boom-Boom Tree! The rhymes are a perfect blend of fun and informative! Kids love to follow along as all the letters of the alphabet attempt to climb up the Chicka-Chicka-Boom-Boom Tree. To supplement the story and give your students a visual aid they will love to use, students can make their own trees and letter friends!

You will need a sheet of 8½ x 11" (21.5 x 28 cm) paper or Roylco's R15294 Terrific Tree Craft Paper! This paper is double-sided, featuring prints of tree bark on one side and tree grain on the other side.

Lay out the paper portrait-style where the short sides are at the top and bottom. Cut 5 slits into the paper about ¼ of the way up. This will make 6 floppy strips. This is great for encouraging scissor skills in students.

Roll the rest of the paper into a tube and tape to secure closed. Cut smaller slits into the bottom and fold them out. This will serve as the base for your tree and make it easier to stand up.

Curl the strips at the top of the tree using a pencil or the blunt edge of a pair of scissors.

For the letters, use Roylco's R15632 Alphabet Pasting Pieces or draw letters onto the leaves. Tip: You don't have to incorporate all the letters of the alphabet. Instead, focus on a few letters that students already know, such as the letters in their names or a descriptive word from the sentence. Paste the letters onto the tree.

When children take their tree home, they can show their parents how their name is hidden within the branches of the lovely tree.

Letter Vests

Roylco's R4960 Letter Vests have an inspiring origin. A friend of ours, a teacher, wanted to create special “bibs” for students to wear, printed with the letters of the alphabet. She felt that this could be a way for students to understand the letters, rather than simply trying to memorize them. Roylco's design team worked with her to create special vests that were printed with a lowercase letter on the front and its matching uppercase version on the back.

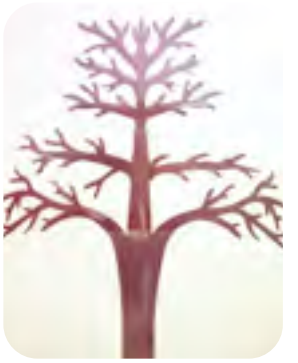
The first demos were ready to go in February, in the middle of the school year. By then, our teacher-friend had become sincerely worried that the progress of teaching the alphabet in her classroom was going very slowly and so, eager to try out the vests, she got to work right away.

As she was handing the letter vests out to students, she noted that she had her back turned to the majority of the kids and couldn't see what was unfolding behind her. When all the vests were handed out, she said that the level of chatter in the class had significantly dropped. She turned around to find all of the kids organized into the letters of the alphabet. This, she stated, was her proudest moment! All her efforts to teach the alphabet throughout the year, the efforts she thought had failed, had worked and her students, in fact, showed her that they knew more than she thought.

As a class, use these or other large letters to spell out words. There are multiple vests of the same letter, so you can spell out words with double consonants or vowels. Take photos of the words and email them to parents! I like to focus on organizing the students to spell out seasonal words, like Happy Mother’s Day or Thanksgiving.

Using their whole body to represent a letter in a word is an experience that will make students be proud to say, “I helped spell the words!”

Four Seasons Poet-Tree



This activity is centered on a concept that is meant for older children, but can be adapted for younger students. Roylco's R49132 Four Seasons Poet Tree features a large wall poster of a tree with refillable leaf cutouts. The teacher writes various vocabulary words onto the leaves and then displays them on the Poet Tree. Students use the vocabulary words to come up with their own poems.

It is a great kickstarter for vocabulary building exercises and creative writing! However, for the purposes of this activity, we will be using the leaf cutouts for something different.

If you don't have our Poet Tree, go online and find an image of a tree to paste up on your wall. Print the image out at 500% and use the "poster" option on your printer to print multiple pages as tiled parts of the single image. Piece the pages together and hang up on your wall. You can also photocopy leaf images and ask your students to cut them out. As an added bonus, this will help them practice their scissor skills! On each cutout, write a letter of the alphabet in one marker color. Give your students the leaf letters and ask them to choose a different marker color and trace over top of the letter. Once they are finished, ask them to repeat the exercise with another color. Once they have layered enough colors to make a rainbow letter, children can then paste the letter-leaves around the branches of the tree. Students will be excited to tell their parents that they created "Rainbow Letters."

Throughout the year, students can print their own letters and stick them up in place of the Rainbow Letters. You can eventually progress to names, phrases and vocabulary words! When the Rainbow Letters come down, send them home with the artist who created them. Parents will love to see the progress their child has made throughout the year.

Twist and Spell

I like using Roylco's R62017 Twist and Spell Cards to teach the alphabet, but I also like using the cards as an exercise for spelling vocabulary words. Some kids are more likely to learn when they use their whole body. By that, I mean through either gross motor or multi-sensory activities. In this lesson, we will be using the cards as letter flashcards. Kids will observe the card, and then attempt to mimic the shape of the letter with their bodies.

I find that these specific cards are the best for encouraging this because they feature pictures of children stretching their bodies to pose as the letters of the alphabet. It may seem a bit strange, but when I've held up a letter card and asked students to pose in that shape, none will attempt the pose! But when there is a picture of a kid on the card, the students don't even hesitate.

This is a great exercise because you can spell as many letters as there are students. Organize them into groups to make phrases. I like to take pictures of kids spelling special words. You can even pre-arrange the kids to spell phrases for special holidays. For instance, line the kids up and have them spell out the letters “Happy Mother's Day” with their bodies. Take pictures and send to parents on that specific holiday!

Children will be happy to describe to their parents how they can spell with their bodies!

Conclusion

The goal of this book is not to explain specific activities that you are meant to do in your classroom exactly the way they are described, but rather to give you ideas that you can customize specifically for your students. We want to give ideas that you can alter, transform or completely reinvent with your students. Our goal is to show you how art can be used to teach other subject areas. Once you are confident that art can and should be part of your academic curriculum, you are on your way to discovering a very satisfying, meaningful process that will inspire students while encouraging parents to become your educational partners. It's an exciting prospect.

Before moving on, I want to caution you against some bad habits that can get in the way of supporting creativity.

Creativity Killers

Surveillance: Sometimes teachers and parent volunteers can hover over students. Their intentions are to ensure students are getting the most of their artistic experience while preventing conflicts with other students, avoiding messy spills and concentrating student effort. However, when a teacher or adult is supervising childred in a manner that makes them feel self-conscious or interrupts their thinking and decision making process, they are killing creativity. By watching children too closely or correcting a child, teachers inhibit the creative process. If you have a concern about a child or an activity and feel that tighter supervision is called for, try asking, "Will it disturb you if I sit here while you create/draw/paint, etc.?" Reassure your student that you won't look at their artwork until they are ready to share it.

Evaluation: It's natural to show interest in a child's work, especially when they are showing it to you. Don't be tempted to ask, "What is it?" Try not to guess what it is. Remember that you are focussing on the process and not the end result. Children are notorious for asking our opinions about their work. When it comes to the art they produce, avoid passing judgment. Instead, speak to the child's use of line, color, texture, etc. Point out specific things and ask about the decisions children made when making their artwork.

Competition: Children are conditioned to compete and they want adults to enter into their peer rivalries. Stay neutral and comment on the fun they are having rather than supporting a race or competition.

Rewards: We live in a culture where winning awards is expected for everything. While some children will be motivated by this practice, others will have the opposite response. Look for ways to encourage student pride without giving them rewards such as stickers, food or privileges. The creative process brings its own rewards in the form of wonder, joy and fulfilment.

Rationing Resources: Sometimes limiting the choices a student has is a way to increase creative thinking. Students figure out how to use materials in unexpected ways, however, if there is simply not enough materials, children will spend more time fighting for these scant resources than actually creating. The struggle will set their mind into a defensive posture which is never good when trying to foster creativity. Make sure you have enough essential supplies to go around to avoid conflict and promote harmony.

Project Mismatch: Einstein once said, "Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing it is stupid." Art is a huge subject area. Some children may not be good at painting or drawing, but they enjoy sculpting and building. Work to find the right medium for your students. This may mean customizing specific activities for specific students. That means extra work for the teacher, but it also means success for the student. If you try to force a student to do something they are not good at, they will live in creativity-crushing panic. Relieve the panic by spending extra time with the student to help them develop techniques or alter the project so they can achieve the results they want.

Finally, I want to end my story where I began, with my friend, Grue. Grue was the little boy who brought me so much joy when he signed my name for the first time so many years ago. I want you to know that Grue worked hard and became proficient at sign language. He could dress himself and eat on his own. He could walk with a white cane used by blind people. He could even walk without the cane. Once you got him started, he didn't want to stop, so he learned to ice skate, roller skate and swim.

He graduated from school when he was eighteen years old. He went back to his home town where his mother still lived and thrived in a group home where he lived with other young adults. He had several jobs and I am confident that he performed his work well.

I had the pleasure of working with Grue for his first four years at our school. Those were his "early years." Between me and three other teachers, Grue was constantly being cared for and challenged. Grue participated in all of the activities that the rest of the students did. He played on a water table and a sand table. He used exercise equipment and loved the dramatic play area. Art was a huge part of each and every day for Grue. It was mandatory at our school that each child did art. Deaf and blind children need to develop their remaining senses, so art was fundamental to our curriculum. Art stimulated Grue's senses like nothing else. He loved art and it was the foundation for everything else he learned.

Grue faced so many challenges but many joys he had when he finger painted, glued and explored art material are a memories I will never forget. Grue showed me the potential that lies in every single child regardless of his or her limitations. Given the right tools and the right commitment from adults, every child's potential is limitless. Grue first taught me that important lesson. It has been reinforced many times over the years. I hope you've experienced this lesson, too. And I hope some of the ideas I shared with you will motivate you to continue exploring each child's limitless potential!

Roylco makes R75415 Finger Paint Sensations Kit. Each pack contains 10 different additives to mix in paint to give them different textures. Originally designed for blind students, this pack is appropriate and safe for all young children. Turn finger painting into something special! Ask your students to wear a blindfold while creating art! This will give them an appreciation and understanding of the challenges physically handicapped people have while having fun!

Product Information Appendix

We've listed items as they appear in the book. Some items are used throughout the book, but are only listed once. For more information about our products and to watch useful videos, please visit our website: www.roylco.com

Page#	Item No.	Description
4	R6085	Straws and Connectors™
5	R39101	Fabric Print Craft Sticks
5	R39100	Wild Animal Craft Sticks
5	R15314	Super Slick Craft Paper
7	R51448	Paper Doll Pad
7	R49143	All About Me Book
8	R2111	Art-a-Roni Colored Noodles
8	R51449	Face Pad
9	R52097	Superhero Masks
10	R4959	Mix and Match Emotion Masks
11	R15243	Fabulous Fabric Craft Paper
12	R14273	African Textile Paper
15	R16004	Rainbow Weaving Mats
15	R60160	Constructa Clips
16	R16018	Op Art Weaving Mats
16	R16006	Little People Weaving Mats
16	R16003	Classroom Weaving Baskets
16	R16019	Placemat Weaving Mats
20	R75401	Big! Huge! Fingerpaint Paper Kids
20	R5911	True to Life Human X-rays®
20	R59254	Look Inside Me MRI Scans
21	R2440	Color Diffusing Paper Flowers
21	R5449	Paint Pipettes
21	R54460	Squiggle Pipettes
21	R54470	Junior Heart Paint Pipettes!
22	R15213	Color Diffusing Paper™
22	R2184	Manuscript Letter Beads
22	R2185	Math Beads
22	R2131	Bright Buttons™
23	R15212	Color Diffusing Paper™, 12 x 18"
24	R15256	Amazing Animal Paper™
25	R15290	Nature Craft Paper
26	R15203	Decorative Hues Paper
26	R15204	Economy Origami Paper
30	R5910	Animal X-rays and Picture Cards
30	R59601	Educational Light Cube
31	R5419	Paint Bellows
32	R15257	Stained Glass Craft Paper
33	R15263	Tie Dye Craft Paper
34	R7512	Fingerpaint "No Mess" Trays™
35	R54480	Paint Pad and Tray
36	R15334	Crafty Leaves
36	R15335	Spring and Autumn Leaves
36	R51302	Nature Mobile Maker
39	R5815	Leaf Rubbing Plates
42	R15664	Tessellations Mosaics
43	R20201	Super Value Building Beads
44	R5601	Plastic Lacing Needles™
45	R2152	Straws to String
45	R2170	Brilliant Beads
45	R49620	Dry Erase Classroom Tunics
45	R5905	'Hands Up' Dry Erase Answer Boards
46	R57015	Junior Goo Spreaders
46	R15653	Paper Circle Popz
47	R75423	100 Days of School Fingerpaint Paper
50	R60450	Skyscraper Building Cards
50	R59630	Sensory Tray
52	R2186	Lower Case Letter Beads
54	R15294	Terrific Tree Craft Paper
54	R15632	Alphabet Pasting Pieces
55	R4960	Letter Vests
56	R49132	Four Seasons Poet Tree
57	R62017	Twist and Spell Exercise Cards