STEAM: ART WITH SCIENCE & MATH

@ARTSCORPS
#MAKEARTANYWAY
**Activity 1: Polyhedrons**

You will learn to make two different polyhedrons out of cardboard. The first polyhedron is called a tetrahedron, the second one is called a cube.

**Activity Opening:**

Polyhedrons are made up of faces, edges, and vertices. The ones we are working with today are called regular polyhedrons. Let's start by building two different polyhedrons.

The first one is called a tetrahedron.

**Steps/Instructions PART I: Tetrahedron**

1. I'm using a butter box and a cookie box for this project. Start by breaking down the box. Cut the flaps off then cut along the edges to separate the sides.

2. Save any scraps, we'll use those in another project.

**Materials:**
Cereal Box
Scissors
Tape
Marking Pen
Ruler

**Vocabulary:**
Polyhedron: a 3D shape (PAWL-ee HEE-dren)
Face: a side of a polyhedron
Vertex: A corner of a polyhedron; plural-vertices (VER-TI-SEES)
Tetrahedron: a polyhedron with four sides. (TET-truh HEE-dren)
Cube: a polyhedron with six sides
**Activity 1: Polyhedrons**

*Discipline:* Visual Arts  
*Duration:* 1 - 2 hours  
*Age Range:* Grades 3 - 5  
*Creator:* Adam Collet  
*Contact:* integration@artscorps.org

*Materials:*  
Cereal Box  
Scissors  
Tape  
Marking Pen  
Ruler

*Vocabulary:*  
Polyhedron: a 3D shape (PAWL-ee HEE-dren)  
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Tetrahedron: a polyhedron with four sides. (TET-truh HEE-dren)  
Cube: a polyhedron with six sides

3. Cut strips of cardboard about 3/4 of an inch wide (3/4”). For this project I'll need six (6) strips for the tetrahedron and twelve (12) for the cube. These strips will be the edges of our polyhedrons. All the pieces should be about the same length.

4. Fold the pieces in half the long way.

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**Why do we do this?**

Fold one piece and compare it to an unfolded piece. Which one is more floppy? Which one is more rigid (doesn’t bend)?
**Activity 1: Polyhedrons**

*Discipline:* Visual Arts

*Duration:* 1 - 2 hours

*Age Range:* Grades 3 - 5

*Creator:* Adam Collet

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- Cube: a polyhedron with six sides

5. Let’s start our build by taping two pieces together. Try putting a piece of tape sticky side up on the table, then stick one of the edges to the tape with the fold facing down.

6. Next, we’ll add another edge to make a triangle.

7. Let’s add one edge to each corner of our triangle.
ACTIVITY 1: POLYHEDRONS

Duration: 1 - 2 hours

Age Range: Grades 3 - 5

Creator: Adam Collet

Contact: integration@artscorps.org

Materials:
Cereal Box
Scissors
Tape
Marking Pen
Ruler

Vocabulary:
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Cube: a polyhedron with six sides

Steps/Instructions PART I: Polyhedrons
8. Next, we'll bring two edges up and tape them together.

Now, tape the third edge to the first two.
9. Does your shape look like this? Congratulations! You've just made a tetrahedron!

Steps/Instructions PART II: Cube
1. Let's use this same method to make our next polygon. We need 12 edges to make a cube.
### Activity 1: Polyhedrons

**Duration:** 1 - 2 hours  
**Age Range:** Grades 3 - 5  
**Creator:** Adam Collet  
**Contact:** integration@artscorps.org

**Materials:**  
- Cereal Box  
- Scissors  
- Tape  
- Marking Pen  
- Ruler

**Vocabulary:**  
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- Cube: a polyhedron with six sides

2. Take four edges and arrange them in a square. Place one piece of tape at each corner.

3. Add one more edge piece to each corner at an angle and set it aside.

4. Make another square just like Step 2.
# Activity 1: Polyhedrons

**Discipline:** Visual Arts  
**Duration:** 1 - 2 hours  
**Age Range:** Grades 3 - 5  
**Creator:** Adam Collet  
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**Materials:**  
- Cereal Box  
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**Vocabulary:**  
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- Cube: a polyhedron with six sides  

5. Now, let’s put our two parts together.

6. Don’t worry if your cube is a little wobbly. Cubes are like that!

**Background:** These are called regular polyhedrons. This means each one has its faces made from the same regular polygon (shapes that have equal length sides.)

**Free build time!**

Before we get started, try this: Gently wobble each polyhedron back and forth. Which one is more stable? Why do you think this is?

OK. Let’s try to build something. See if you can build a dome or tower. Do you have an idea for something you would like to try?

**Activity Closing: Now What?**

- Count the number of faces, edges and vertices for each polyhedron.
- How many regular polyhedrons do you think there are? And how many sides do they have?
- Can you build any other polyhedrons? Can you build something using the polyhedrons we’ve already discovered (tetrahedron, cube)?

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*When sharing this resource, please cite Arts Corps and any authors, artists and creators listed.*
**ACTIVITY**

*Discipline:* Visual Arts  
*Duration:* 1 hour  
*Age Range:* Grades K - 8  
*Creator:* Maria Luisa Guillen Valdovinos  
*Contact:* integration@artscorps.org  

*Materials:*  
Liquid Watercolor or Food Coloring  
Mixed Media Paper  
Dropper or Spoon  
Plastic Container or Jar  
Vegetable Oil  

*Vocabulary:*  
Liquid  
Fluid  
Mixing  
Drops  
Pattern  

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**2: WATERCOLOR OIL DROPS**

With the visual exploration of movement and patterns we will witness how the vegetable oil binds with the watercolor to create a beautiful variation of colors!

**Learning Goals:**

- You will experiment with oil and water.  
- You will explore using water as a material in visual arts.  
- You will create patterns.

**Activity Opening:**

This fun lesson will focus on how we, as creative thinkers, can explore movement and patterns in nature. We will explore how oil and water can mix to create beautiful visuals and patterns through drop dot art!

**Steps/Instructions:**

1. Use a small plastic container and fill it up halfway with water. Then pour a teaspoon of vegetable oil in. What do you notice? Do the two liquids combine? Which one is on top of the other?
2: WATERCOLOR OIL DROPS

2. Put 3 - 4 drops of liquid watercolor into the water and oil mixture. You can add up to 5 different colors into the mixture.

3. Mix the liquid watercolors, oil, and water in the small container. What do you notice? What do you see happening to the 3 liquids we combined?

Materials:
- Liquid Watercolor or Food Coloring
- Mixed Media Paper
- Dropper or Spoon
- Plastic Container or Jar
- Vegetable Oil

Vocabulary:
- Liquid
- Fluid
- Mixing
- Drops
- Pattern
**ACTIVITY**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades K - 8

**Creator:** Maria Luisa Guillen Valdovinos

**Contact:** integration@artscorps.org

**Materials:**
- Liquid Watercolor or Food Coloring
- Mixed Media Paper
- Dropper or Spoon
- Plastic Container or Jar
- Vegetable Oil

**Vocabulary:**
- Liquid
- Fluid
- Mixing
- Drops
- Pattern

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**2: WATERCOLOR OIL DROPS**

3. Use the dropper or spoon to grab the mixture and begin dripping the drops on the paper. You will see that the oil binds with the liquid watercolor to retain its color! Use the sponge to spread the drops if you want to create a pattern. What happened to the water?

![Image of watercolor oil drops activity]

**Activity Closing: Now What?**

In this lesson we witness the power of water as a tool for artists and the intersections of how we can apply science in our daily creative lives. To challenge yourself, you can draw an image with a water resistant black marker, then create beautiful colors and patterns on your graphic!

![Image of watercolor oil drops activity]

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**ACTIVITY**

**Discipline:** Visual Arts  
**Duration:** 1 hour  
**Age Range:** Grades 3 - 5  
**Creator:** Adam Collet  
**Contact:** integration@artscorps.org

**Materials:**  
Marker  
Paper  
Pencil  
Two Tetrahedrons from Activity 1

**Vocabulary:**  
Row: a collection of objects (or spaces for numbers) arranged side to side  
Column: a collection of objects (or spaces for objects) arranged up and down  
Sum: the answer to an addition problem  
Array: a collection of objects arranged in rows and columns

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**3: POLYHEDRAL DICE GAMES**

Dice are a common part of games. The most common dice are six sided, like a cube. Hopefully you built a cube or tetrahedron in the last project. Let’s go ahead and build another tetrahedron for our first game. Refer to the directions in Activity 1 if you need help.

For the first game we'll use two tetrahedrons.

**Steps/Instructions:**

1. Label each corner of your tetrahedron with the numbers 1, 2, 3 and 4.

2. Do the same on the other tetrahedron.

3. Congratulations! You just turned your tetrahedrons into dice.

4. We’ll use the array below to play a game for two people. You can draw your own array on a blank piece of paper.

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
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</tbody>
</table>

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MAKE ART ANYWAY  
#CreativeSolidarity
**ACTIVITY 3: POLYHEDRAL DICE GAMES**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:**
integration@artscorps.org

**Materials:**
Marker
Paper
Pencil
Two Tetrahedrons from Activity 1

**Vocabulary:**
Row: a collection of objects (or spaces for numbers) arranged side to side

Column: a collection of objects (or spaces for objects) arranged up and down

Sum: the answer to an addition problem

Array: a collection of objects arranged in rows and columns

**Rules:**
- Toss your dice in the air.
- When they land, add up both numbers shown.
- When we add two numbers the result is called the **sum**.
- Write the sum on the array. So if you roll a 2 or 3 your array will look like this:

<table>
<thead>
<tr>
<th>+</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</tbody>
</table>

- Don’t forget to fill in all the squares you can.
- Remember the sum of 2+3 is the same as 3+2.
- If you roll a double (1+1, 2+2, 3+3, 4+4) take another turn.
- When your turn is over it’s the next players’ turn.
- First player to fill in their array wins!

Let’s take a look at our array.

Do you see any patterns?

What sum is the most common?

What sum is the least common?

Can you figure out why?
**ACTIVITY**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:** integration@artscorps.org

**Materials:**
Marker
Paper
Pencil
Two Tetrahedrons from Activity 1

**Vocabulary:**
Row: a collection of objects (or spaces for numbers) arranged side to side
Column: a collection of objects (or spaces for objects) arranged up and down
Sum: the answer to an addition problem
Array: a collection of objects arranged in rows and columns

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**3: POLYHEDRAL DICE GAMES**

What would happen if you replaced the + (addition) symbol with x (multiplication)?

**Bonus Game:** Bingo! Here’s a Bingo board I made.

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<table>
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</tr>
</tbody>
</table>

Let’s make two or more Bingo boards, one for each person playing. Fill it in with the numbers from 2 to 8 by rolling two tetrahedron dice and writing in the sum in any box on the board until it is full. Each board should look different.

**Gameplay:** for TWO or more players

1. Players take turns rolling two dice.
2. Each turn, all players put a scrap of paper over the sum on their board one time.

*Example:* I just rolled a 3 and a 1. The sum is 4. Everyone covers one of the 4’s on their board.

3. First player to cover 5 sums in a row, column, or diagonal is the winner. Bingo!
ACTIVITY

WORD BANK

3: POLYHEDRAL DICE GAMES

Activity Closing: Now What?

• See if you can invent your own game using dice.
• What will the rules be?
• What will the board look like?

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4: BUTTERFLY WINGS

We will be making hand crafted, beautiful, pleated paper butterflies to decorate any space you want. Paper is one of the essential tools in the arts and it comes from nature itself!

Learning Goals:

• You will make art with a piece of paper and string.
• You will practice the subtle art of handcraft and folding paper.
• You will create a beautiful visual for your space.

Steps/Instructions:

1. Fold a square origami paper, or square paper, in half, press with fingernail to form the crease.

2. Cut through the crease.

3. With one half of the piece of paper, make a small fold lengthwise and then flip the paper over to fold it back onto itself, continue with the accordion folds until you fold the entire length of the paper and it resembles a small fan.
**Activity 4: Butterfly Wings**

**Duration:** 1 hour

**Age Range:** Grades K - 12

**Creator:** Maria Luisa Guillen Valdovinos

**Contact:** integration@artscorps.org

**Materials:**
- Origami Paper Pattern Paper or any square piece of paper
- Piece of String
- Black Waterproof Pen

**Vocabulary:**
- Handcraft
- Accordian Folds
- Crease

4. Take the other piece of paper that you cut and fold it in half lengthwise. Open it up and fold the four corners in towards the crease line. Flip the paper over and start making accordion folds on each side of the crease.

5. Bend both pieces of pleated paper in half. Place one piece above the other and tie them together with a string at the center. Then pull the pleats gently to open up the wings!
ACTIVITY 4: BUTTERFLY WINGS

Discipline: Visual Arts

Duration: 1 hour

Age Range: Grades K - 12

Creator: Maria Luisa Guillen Valdovinos

Contact: integration@artscorps.org

Materials:
Origami Patter Paper
Piece of String
Black Waterproof Pen

Vocabulary:
Handcraft
Accordian Folds
Crease

Activity Closing: Now What?

After you have created your butterflies you can hang them on a string or ribbon to drape in your room or glue them on a piece of paper and make a 3D art wall piece! There are so many ways we can creatively bring the natural world into our home.

*When sharing this resource, please cite Arts Corps and any authors, artists and creators listed.*
**ACTIVITY**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:** integration@artscorps.org

**Materials:**
- Paper
- Pencil
- Ruler
- Scissors
- Tape
- Paper Clips (Optional)
- Markers or Crayons (Optional)

*If you don’t have plain paper, see if there is some other paper you can reuse. An old envelope or a page from an old notebook can work.

**Vocabulary:**
- Auto: Self
- Rotating: Turning
- Auto-rotating: Self-turning

**5: PAPER HELICOPTER**

**Steps/Instructions:**

1. Using a ruler or free hand let’s start by measuring and cutting a 2-inch-wide piece of paper.

   ![Step 1 Image]

   Do not worry if yours does not look like my example. You’ll have a chance to try again.

2. Draw a dotted line halfway across. This is Line 1. This is a fold line. We will use dotted lines for lines we fold. We will use solid lines for lines we cut.

   ![Step 2 Image]

3. Draw a solid line down the middle until you come to the dotted line. This is Line 2.

   ![Step 3 Image]
**Activity**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:** integration@artscorps.org

**Materials:**
- Paper
- Pencil
- Ruler
- Scissors
- Tape
- Paper Clips (Optional)
- Markers or Crayons (Optional)

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**Vocabulary:**
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5: Paper Helicopter

4. On the left edge of the paper measure about ¾ inch down from Line 1 and draw a solid line ¾ inch long. This is Line 3.

![Image of a paper with lines drawn and a ruler]

5. Now do the same on the other side. This is Line 4.

6. Next, we are going to draw dotted lines down from Lines 3 and 4.

![Image of a paper with dotted lines drawn]

Draw your dotted lines all the way to the bottom of the paper. These are Lines 5 and 6.

7. Get your scissors. It’s time to cut.

8. First, let’s cut solid lines 2, 3, and 4. Remember, just cut these lines and don’t cut any more than the line you have drawn.
**Activity**

*Discipline:* Visual Arts

*Duration:* 1 hour

*Age Range:* Grades 3 - 5

*Creator:* Adam Collet

*Contact:* integration@artscorps.org

*Materials:*
- Paper
- Pencil
- Ruler
- Scissors
- Tape
- Paper Clips (Optional)
- Markers or Crayons (Optional)

*Vocabulary:*
- Auto: Self
- Rotating: Turning
- Auto-rotating: Self-turning

*If you don’t have plain paper, see if there is some other paper you can reuse. An old envelope or a page from an old notebook can work.*

9. Then we will fold dotted Lines 5 and 6.

Try to crease it so it lays almost flat.

10. Finally, we will fold dotted Line 1. We want to fold one half of the line towards us and the other half away from us.

11. Hopefully your helicopter looks a little like this now.

You can also put a little piece of tape on this part to keep it closed if you want.

**Next Page for Image**
**Activity 5: Paper Helicopter**

*Discipline: Visual Arts*

*Duration: 1 hour*

*Age Range: Grades 3 - 5*

*Creator: Adam Collet*

*Contact: integration@artscorps.org*

*Materials:*
- Paper
- Pencil
- Ruler
- Scissors
- Tape
- Paper Clips (Optional)
- Markers or Crayons (Optional)

*If you don’t have plain paper, see if there is some other paper you can reuse. An old envelope or a page from an old notebook can work.*

*Vocabulary:*
- Auto: Self
- Rotating: Turning
- Auto-rotating: Self-turning

Try making the propeller into a T or Y shape.

I think we’re ready for a test flight!

Hold your helicopter up high like in the picture above and drop it.

**Observations:**

Did it spin?

Did it rotate by itself?

Do you remember what that is called?
Activity: Paper Helicopter

Duration: 1 hour

Age Range: Grades 3 - 5

Creator: Adam Collet

Contact: integration@artscorps.org

Materials:
- Paper
- Pencil
- Ruler
- Scissors
- Tape
- Paper Clips (Optional)
- Markers or Crayons (Optional)

*If you don’t have plain paper, see if there is some other paper you can reuse. An old envelope, an old envelope, or a page from an old notebook can work.

Vocabulary:
- Auto: Self
- Rotating: Turning
- Auto-rotating: Self-turning

Activity: Paper Helicopter

• See how long it takes for your helicopter to land. Measure the time by counting or using a watch, phone, or the second hand on a clock.

• Draw a bullseye on a piece of paper and put it on the floor. See if you can land your helicopter on the target.

• Decorate the blades with different colors and designs. Notice how the colors mix together when the propeller rotates.

Activity Closing: Now What?

What would happen if your helicopter had longer or shorter propeller blades?

Try experimenting by making another helicopter or cutting the blades shorter on the first one.

What would happen if your helicopter was heavier?

Try adding a piece of tape or paper clip to the shaft. What happened?

*When sharing this resource, please cite Arts Corps and any authors, artists and creators listed.
activity

**Duration:** 30 minutes

**Age Range:** Grades K - 8

**Creator:** Maria Luisa Guillen Valdovinos

**Contact:** integration@artscorps.org

**Materials:**
- Tissue Paper
- Pipe Cleaner
- Glue Stick
- Pencil
- Scissors
- Cardboard
- Paper

**Vocabulary:**
- Flowers
- Emulate
- Perspective
- Botany

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**6: TISSUE PAPER FLOWERS**

In this interactive hands-on creative exercise we will explore flower **botany**! We will create and emulate flowers through the artist perspective.

**Learning Goals:**
- You will draw inspiration from **flowers**.
- You will use paper, art, and textures to create paper flowers.
- You will use your hands as an instrument of creation.

**Steps/Instructions:**

There is so much we can learn from the natural world. This interactive lesson is focused on flowers through an artist **perspective** and how we can emulate and be inspired by plants!

1. Take one tissue paper and prepare it by folding it to resemble an accordion.
**ACTIVITY**

**6: TISSUE PAPER FLOWERS**

*Discipline: Visual Arts*

*Duration: 30 minutes*

*Age Range: Grades K - 8*

*Creator:* Maria Luisa Guillen Valdovinos

*Contact:* integration@artscorps.org

*Materials:*
- Tissue Paper
- Pipe Cleaner
- Glue Stick
- Pencil
- Scissors
- Cardboard
- Paper

*Vocabulary:*
- Flowers
- Emulate
- Perspective
- Botany

2. Cut the edges of the folded paper with scissors.

3. Add the stem (pipe cleaner) by twisting it in the middle of the tissue paper and fold over the tissue paper.

4. Peel open the layers & separate the tissue paper sheets. You can use a pencil to fold & mold the petals.

**NEXT PAGE FOR IMAGES**
Activity 6: Tissue Paper Flowers

Duration: 30 minutes

Age Range: Grades K - 8

Creator: Maria Luisa Guillen Valdovinos

Contact: integration@artscorps.org

Materials:
- Tissue Paper
- Pipe Cleaner
- Glue Stick
- Pencil
- Scissors
- Cardboard
- Paper

Vocabulary:
- Flowers
- Emulate
- Perspective
- Botany

5. Use green paper to cut out leaves and glue onto the stem.
Activity Closing: Now What?

In this interactive fun paper art project we made flowers with tissue papers and created art inspired by plants. Nature itself is a form of art and has been inspiring humans for centuries! Try to find some real flowers on a nature walk that can inspire your paper flowers.

*When sharing this resource, please cite Arts Corps and any authors, artists and creators listed.*
ACTIVITY

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:** integration@artscorps.org

**Materials:**
- Crayons
- Drawing Paper
- Scissors
- Cardstock or Thin Cardboard

*Sometimes it’s easier to remove the paper from a crayon if you put it in the freezer for a while*

**Vocabulary:**
- Collage: Art that is created from parts that were made separately
- Texture: The look and feel of a surface

---

7: SHAPE RUBBING COLLAGE

“Collect” found shapes and textures around your house or make some new ones.

**Steps/Instructions:**

1. Let’s look around our house. We are looking for textures. Here are some at my house.
Activity: Shape Rubbing Collage

Duration: 1 hour

Age Range: Grades 3 - 5

Creator: Adam Collet

Contact: integration@artscorps.org

Materials:
- Crayons
- Drawing Paper
- Scissors
- Cardstock or Thin Cardboard

*Sometimes it’s easier to remove the paper from a crayon if you put it in the freezer for a while

Vocabulary:
Collage: Art that is created from parts that were made separately
Texture: The look and feel of a surface

2. We’ll collect texture samples by placing our paper over the texture and gently rubbing the top with the edge of the crayon. Hold the paper with one hand and gently push the crayon away, across the paper.
ACTIVITY 7: SHAPE RUBBING COLLAGE

Duration: 1 hour

Age Range: Grades 3 - 5

Creator: Adam Collet

Contact: integration@artscorps.org

Materials:
Crayons
Drawing Paper
Scissors
Cardstock or Thin Cardboard

*Sometimes it’s easier to remove the paper from a crayon if you put it in the freezer for a while

Vocabulary:
Collage: Art that is created from parts that were made separately
Texture: The look and feel of a surface

3. Here are some texture rubbing samples. Can you match the rubbing with the object that made it?

4. Next we’ll cut out some cardboard shapes. Here are a few pieces I have. I’ll cut out some simple shapes first. Square, circle, triangle.

5. Here are what some of my other shapes look like.
7: SHAPE RUBBING COLLAGE

6. Let’s try and combine some of our textures on the same page to make a collage.

In my second collage I used different colors and overlapped the shapes and textures.

**Activities:**

- Try using different colored crayons.
- Try overlapping textures and shapes.
- When you are done with your collage you can draw or paint on it to add more color.

**Activity Closing: Now What?**

- Are some textures easier to collect than others?
- Do some colors work better than others?
- What happens if you turn your shape?
- What happens when you flip your shape over?

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ACTIVITY 8: TELESCOPE & PLANETARY ORBITS

Duration: 1 hour

Age Range: Grades K - 8

Creator: Maria Luisa Guillen Valdovinos

Contact: integration@artscorps.org

Materials:
Markers
Cardstock Paper
Cardboard Tube or Roll of Paper
Glue

Vocabulary:
Imagination
Sky
Glue
Exploration

This creative project is to fuel our imagination and think about the sky. We will create an instrument we can utilize and decorate creatively!

Learning Goals:

• You will use your imagination.
• You will make an instrument to view the sky.
• You will make art with an empty roll of paper.

Steps/Instructions:

Imagination and observing the sky is something humans have been fascinated with for centuries! This lesson focuses on the sky and making a telescope with materials we use daily.

1. Decorate cardstock paper with markers. If you don’t have cardstock, that’s OK. What is the thickest paper you can find? Magazine paper can work great, too!
**Activity 8: Telescope & Planetary Orbits**

**Duration:** 1 hour

**Age Range:** Grades K - 8

**Creator:** Maria Luisa Guillen Valdovinos

**Contact:** integration@artscorps.org

**Materials:**
- Markers
- Cardstock Paper
- Cardboard Tube or Roll of Paper
- Glue

**Vocabulary:**
- Imagination
- Sky
- Glue
- Exploration

2. Roll cardstock paper over cardboard tube, hold with rubber bands then glue the edge of paper

3. Pull the tube to extend the telescope!

4. (Optional) if you have old reading glasses at home that no one is using, you can pop the lenses out of the frame, use one lens to put at the end of the INNER tube and use the second lens to put on the end of the OUTER tube. Use tape to secure the lenses on the tubes, notice how things will be magnified by adding these lenses.

5. Once you're done with your telescope you can go outside and explore the sky!

**Activity Closing: Now What?**

We were able to make telescopes with our creativity and materials that we can find at home. We can observe the sky and bring out our inner astronaut. Another activity you can do is to take a large piece of paper and draw the planets on it so that you can see them with the telescope!

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We will make a set of cards for building houses and other structures. I’m using a cracker box for this project, but a cereal box or even a few different types of thin cardboard boxes will work, too.

Steps/Instructions:

1. Cut apart your box. First I cut the flaps off the top and bottom. Set these aside. Maybe we can use them later.

2. Next cut all the way down one of the corners and lay your box flat. This will help give you an idea of how many cards you can make and what size you will want them to be.
3. Now we cut apart each side.

4. **Your cards can be any size you want.** They can even be all different sizes too. I’m going to try and make some the same size and some different sizes.

   I want some of my cards to be 3 inches long and 2 inches wide so I’m going to measure one of the skinny pieces and see how many cards I can make on it.

5. Next we need to cut little slots in our cards. The slots only need to be as wide as the thickness of the card.
**Activity**

**Discipline:** Visual Arts

**Duration:** 1 hour

**Age Range:** Grades 3 - 5

**Creator:** Adam Collet

**Contact:** integration@artscorps.org

**Materials:**
- Scissors
- Ruler
- Pencil
- Cardstock or Thin Cardboard

*Cereal boxes or other food boxes work really well for this*

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**9: Cereal Box Card Set**

This is the way we will connect our cards. Notice the little pieces I’ve cut out. Try and cut out a few by making a short cut then move the scissors and cut again. Try to make all your cuts the same length.

Here are some cards I made:

6. Put the cards together by lining up the slots. Here’s a structure I made out of four cards.

7. Now try cutting out some simple shapes. Here are some I cut out. Cut slots into them.

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MAKE ART ANYWAY

#CreativeSolidarity
ACTIVITY

9: CEREAL BOX CARD SET

Duration: 1 hour

Age Range: Grades 3 - 5

Creator: Adam Collet

Contact: integration@artscorps.org

Materials:
Scissors
Ruler
Pencil
Cardstock or Thin Cardboard

*Cereal boxes or other food boxes work really well for this

9. You're ready to build now. Try attaching the cards by putting the slots together.

Activity Closing: Now What?

See how tall of a structure you can build.

Make a building with different rooms.


Can you build a bridge over something?

What else can you use this slot building method for?

Here's a cardboard person I cut out. I used a slot in the foot to make it stand up.

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10: GRAPHIC OBSERVATIONS

Observation is a valuable skill in visual arts as we are often witnessing the world around us. In this creative exercise, we will develop our observational drawing skills that can be applied to different fields like biology, science, architecture, and engineering.

Learning Goals:

- You will learn to observe your scenery.
- You will learn to create a realistic image.
- You will learn to listen to your creative self.

Steps/Instructions:

1. Choose a scenery (city, desert, mountains, ocean, island, jungle, etc.)
2. Choose between a sunrise or sunset (sun or moon/stars.)
3. Think of the wildlife and plant life in that ecosystem (trees, rivers, cactuses, etc.)
4. Draw out your ideas into a piece of paper and with the brushes, markers, and sponge create the texture.
Activity 10: Graphic Observations

Activity Closing: Now What?

In this lesson we explored the importance of observing our surroundings as a technique to developing hand-eye coordination, methods & styles.
MAKE ART ANYWAY.