



Stars Align Extension Activities!



Paper Mâché Constellations



Cetus, the Whale

Prior to making paper mâché constellations, students select a constellation to study and write a short description of the constellation. Kids explore the constellation's story, where it's seen, and potential cultural interpretation to accompany the display.

Paper mâché time!

Supplies:

- Newspaper
- Masking tape
- All-purpose white flour
- Water
- Bowl & whisk
- Vinyl gloves
- White paint
- Various night sky paints – black, blue, purple
- Mod podge gloss
- Large piece of cardboard as a work space
- String or fishing line



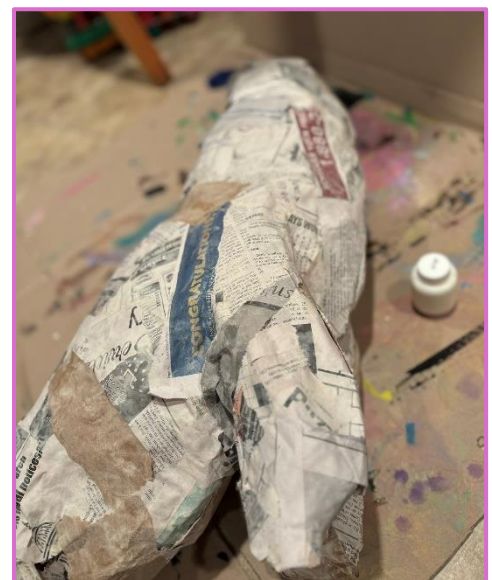
Steps:

Constellation prep:

1. Identify a constellation picture you would like to make! (i.e. Leo the lion, Ursa Minor the bear, or Lupus the wolf)
2. Begin by creating a shape of the constellation creature out of balled up newspaper with masking tape to hold in place in the shape you wish to make.

Paper mâché time!

3. Prepare the paper mâché materials by creating numerous small and medium strips of newspaper. Set aside.
4. Next, prepare the paper mâché solution. Mix 1 part flour to 2 parts water and whisk together in a big bowl. 1 cup of flour to 2 cups of water is a good starting point.
5. Place the constellation creature on your large cardboard workspace. This area may get wet, and the project will sit here to dry.
6. With gloves on, take a strip of newspaper and submerge it into the solution. Let excess drip off. Place your wet strip of paper on the taped newspaper creature and overlap some each time



as you cover the entire object. You may need to cover half and let dry, then flip and do the other side. Apply 2 coats of paper mâché for durability letting the first layer dry completely before applying the second.

Painting & Detail:

7. Once your creature is dry, gently paint the entire thing in white paint.
8. When the white paint is dry, paint your creature with your space colors!
9. When that is dry, take the white paint and draw stars or circles where the constellation is located and paint lines connecting the stars. Add extra painted stars nearby for embellishment. Again, let one side dry before painting the other.
10. When the paint is dry, apply mod podge gloss paint over the entire project to seal and shine!
11. When the entire project is dry, gently attach your fishing line around the object and hang in a desired spot or display on a shelf. There you have it! A one-of-a-kind paper mâché constellation.



Dancing Under the Stars

A Kinesthetic Comet Activity



Great for a class activity to demonstrate how a comet moves and enters the Earth's atmosphere.

Supplies:

- Blue, Yellow, Gold Paper cards
- Silver cards with silver ribbon taped to them
- Large space such as a gym or outdoors

Steps:

1. Several students form a large circle to represent the Earth. Each student has a blue card they hold up.
2. Several other students create a larger second circle further away and hold yellow cards that represent the sun.
3. Other students form a line outside of both circles and represent Comet Thatcher while holding gold cards. Several students at the end of this line also hold silver cards. (Make sure there are enough students as they will be the breakaway comets!)
4. Students on Earth begin to “dance” in a circle to represent the Earth’s rotation and also walk around the sun’s circle, if room allows.
5. Next, the line of Comet Thatcher students begins to make their orbit around the sun and approach the Earth while walking in an oval around the sun several times. As Comet Thatcher students approach Earth, each time on their orbit, or walk, the students at the back of the line with silver cards one by one begin to dance quickly away from the line and towards or around Earth. The silver ribbon from their cards

should fly with them! This represents the parts of the comet that break away as they enter Earth's atmosphere and can be seen as a shooting star Earth.

Explorer discussion questions to ask after the exercise:

Thought: Ask students to review what each card color in the activity represents.

The blue cards represent Earth, yellow cards represent the sun, gold cards represent Comet Thatcher and silver cards represent parts of the comet that break away as they enter Earth's atmosphere.

Thought: What happens when the students with silver cards start to dance quickly away from the line towards or around Earth?

This represents the parts of the comet breaking away and entering Earth's atmosphere, appearing as shooting stars.

Thought: Why do the students holding the blue cards "dance" in a circle?

They are representing the Earth's rotation.

Thought: What are students with gold cards doing?

They are representing Comet Thatcher and making an orbit around the sun.

Thought: Why do you think comets appear to break apart when they enter Earth's atmosphere, based on what you observed in the activity?

The activity demonstrates how the gravitational forces and heat encountered as the comet approaches Earth cause fragments to break off. This suggests that comets break apart due to the stress of entering Earth's atmosphere and the intense heat generated by friction with the atmosphere.

Thought: How does the silver ribbon flying with the students represent the parts of the comet that break away?

The silver ribbon symbolizes the dust and gas particles that form a comet's tail when they break away and enter Earth's atmosphere.

Thought: How might the behavior of Comet Thatcher in the activity differ if it approached Earth from a different angle or at a different speed? What inference can you make about the factors influencing the behavior of comets?

If Comet Thatcher approached Earth from a different angle or speed, its trajectory and interaction with Earth's atmosphere would vary. This inference suggests that factors such as the angle of approach, speed, and proximity to other celestial bodies influence the behavior of comets in space.

Thought: Why is it important for us to learn about Earth's movement in space?

Understanding Earth's movement in space helps us understand seasons, day and night, and other natural phenomena on our planet.

Thought: What other celestial bodies could we represent in this activity?

We could represent other planets in the solar system, moons, asteroids, or even distant stars.

Comet on a Stick

Combining science and art, younger students can create their own star wands!



Comets are made up of chunks of ice, rock and gas as they move and break up in space. In this "comet on a stick," the tin foil is the nucleus of the comet. **One color of ribbon**

represents the coma of the comet which glows around the nucleus (and contains gas and dust). **A second color of ribbon** is the dust tail, and a **third color ribbon** is the gas tail. Have students present their comets and describe the various parts. Wave your comet around the room and watch it go!

Supplies:

- Two 12-inch squares of aluminum foil
- 3 different colors of metallic ribbon (or 3 different colors of pipe cleaners)
- Scissors
- Dowel – wood, colorful acrylic or popsicle stick

Steps:

1. Begin by cutting six different pieces of ribbon, 2 of each color and different lengths per color, about 8 inches, 13 inches, and 18 inches long.
2. Tie the ribbons around the sticks near one end of the stick. Lightly curl some of the ribbon carefully with scissors.
3. Next, cut the tinfoil and ball each one around the end of the stick with the ribbon to cover the knots.
4. Wave and play!



Interstellar Travel guide – A Class Activity

Travel through space in a scavenger hunt to discover clues and facts about the solar system. Students hunt for cards “riddled” with facts strategically located around the classroom, library or extension of the learning environment.

Students use an activity guide sheet and answer questions as they find cards – even in the dark with flashlights!

Topics explored include the constellations, meteorites, and star facts. Provided are 21 clues divided into 3 groups, for an example class size. Combine or divide clues as needed based on the number of students.

Supplies:

- Flashlights - 1 flashlight per student group or 1 per student
- Clue cards
- Tape
- Star guide worksheets
- Black poster paper – 1 per group
- Pencils
- Chalk markers in different colors
- Optional: mini battery powered lights, star stickers, glitter pipe cleaners, or additional materials to decorate star posters

Steps:

Preparation Before Students Arrive:

1. Create typed or written clue cards based on the clues provided for this activity. Number them to ensure they are in the correct order. Make different colored cards for each group.
2. Place the clues around the classroom based on the location they lead to. Suggested spots are provided.
3. Create worksheets for each group based on the star facts provided for each team. Students fill in the blanks as they go from clue to clue.
4. Have 1 large black poster per group. At the end of the scavenger hunt, student groups will create posters based on the information they learned during their scavenger hunt to display their learnings. Each group presents to the class. Keep these hidden until students complete the scavenger hunt.



Ready for the Activity!

5. Tell the students they will be going on a scavenger hunt to learn about stars. Explain that the classroom lights will be turned off and they will use flashlights to find clues.
6. Provide a star guide worksheet to each student. Each group receives a different worksheet that corresponds to a specific color of clue cards, noted on their worksheet. Students will only be looking for those color clue cards and if they come across a different color to leave it alone for other groups.
7. At each clue station, the riddle will provide an answer to a prompt on the worksheet. At the end of the activity, students will take the information from their worksheets and create a poster about stars.
8. Place the flashlights turned on in the middle of the room together. Turn off the classroom lights and close the shades to have a starry night atmosphere. Have each student select a flashlight or one representative from the group to grab enough for group members.
9. Pass out the first clue to each group.
10. Students embark on the scavenger hunt to find 7 clues and fill in their worksheets with information from each clue station. Students should go in number order.

11. After students locate the final card, student teams complete the team's star poster with the information they obtained from the scavenger hunt. Students should decorate the posters with star embellishments, drawings or glitter lights.
12. Students present their posters then hang on them on the wall for display!

Clues for Group 1:

1st clue: Red stars in the night sky, burning so bright, They hold the most heat, a dazzling sight. To find the next clue in this celestial quest, Look where the room's warmth is at its best.

The answer to this riddle leads students to find an object or area in the classroom associated with warmth or heat, such as a radiator, a heater, or a sunny spot. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Stars come in different colors based on their temperature. Blue stars are the hottest, followed by white, yellow, orange, and red, the coolest.

2nd clue: In the cosmic dance, among countless peers, some shine bright for billions of years. Main sequence, giants, and dwarfs we see, Our Sun belongs to the first category. In our class, find something that glows, It leads to where the next clue goes.

The answer to the riddle should lead the students to find an object in the classroom that glows, such as a lamp or a glowing sticker. This object will have the next clue about stars hidden nearby or attached to it.

Fact associated with this clue: There are many types of stars, including main sequence stars, giants, and dwarfs. Our Sun is a main sequence star.

3rd clue: The night sky's guide, steadfast and true, Sailors and travelers rely on its view. The North Star, Polaris, its name you seek, Find it near something that points and is sleek.

The answer to this riddle is "Polaris" or "the North Star," leading students to find an object that points, such as a compass or an arrow, in the classroom. The next clue about stars will be hidden near or attached to this object.

Fact associated with this clue: The north star is also called Polaris, or polar star, because it is positioned in line with the Earth's northern axis.

4th clue: In the vast galaxy, where stars play, A spiral dance in a pinwheel array. The Milky Way's shape, spinning with grace, Find the next clue where we spin in place.

The answer to this riddle leads students to find an object or area in the classroom associated with spinning, such as a globe, a fan, or a chair that spins. The next star clue will be hidden nearby or attached to this object.

Fact associated with this clue: The shape of the Milky Way is like a spinning pinwheel.

5th clue: In cosmic nurseries, where stars are born, Gas and dust gather, in a celestial storm. A nebula cradles a protostar bright, Find where we gather things and keep them tight.

The answer to this riddle leads students to find an object or area in the classroom associated with gathering and keeping things together, such as a supply closet, a drawer, or a storage bin. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Stars form in large clouds of gas and dust called nebulae. Gravity pulls the gas and dust together to form a protostar.

6th clue: In the night sky, a creature takes flight, A horse with wings, a majestic sight. Pegasus soars in a constellation of force, Find the next clue where you'd find a horse.

The answer to this riddle leads students to find an object or area in the classroom associated with a horse, such as a picture of a horse, a toy horse, or a book with a horse on the cover. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: The Pegasus constellation is a flying horse shape seen in the Northern Hemisphere.

7th clue: Stars have guided through the night, In many cultures, their stories alight. Orion, the hunter in Greek lore's fame, In other lands, known by a different name. From Osiris to Shen, tales do spread, For the next clue, look where stories are read.

The answer to this riddle leads students to find an object or area in the classroom associated with storytelling or mythology, such as a bookshelf with mythology books, a storytelling corner, or a bulletin board with cultural stories. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Stars have been important in many cultures for navigation, storytelling, and mythology. Cultures around the world have developed their own unique stories and mythologies to explain the patterns they see in the stars. While some cultures might see a hunter or a warrior in a constellation, others might see animals, mythical creatures, or everyday objects. These interpretations are often influenced by the cultural beliefs, values, and experiences of each society. For example, the constellation Orion is named after a hunter in Greek mythology. In Native American cultures, Orion's Belt is sometimes seen as three hunters chasing three deer.. Stories and myths vary widely, reflecting the unique perspectives and traditions of each culture.

Location where last clue leads: Congratulations, intrepid explorers! You've successfully unlocked the secrets of the stars and completed our stellar scavenger hunt. But your cosmic journey doesn't end here! It's time to unleash your creativity and become star scholars by creating posters with the fascinating facts you've discovered. So grab your markers, unleash your imagination, and let the stars guide you as you craft your stellar masterpieces. May your posters shine as brightly as the stars themselves!

Clues for Group 2:

1st clue: Astronomers measure a star's bright might, Luminosity tells of its radiant light. To find the next clue, think of a place, Where energy shines and lights up the space.

The answer to this riddle leads students to find an object or area in the classroom associated with light or energy, such as a light bulb, a lamp, or a light switch. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Astronomers also measure luminosity — the amount of energy (light) that a star emits from its surface.

2nd clue: Stars' final chapter, a cosmic decree, From brilliance to shadows, their journey we see. White dwarfs, neutron stars, in darkness they roam, To find the next clue, seek a place where something has grown.

The answer to this riddle leads students to a plant in the room and the next star clue will be hidden there.

Fact associated with this clue: Stars have a life cycle. When stars die, they can become white dwarfs, neutron stars, or black holes, depending on their mass.

3rd clue: Among the stars, the hottest hue, Shines with a light that's bright and blue. For the next clue, seek something hot, Where warmth is found, the clue is sought.

The answer to this riddle leads students to find an object or area in the classroom associated with heat, such as a radiator, a heater, or a sunny window. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Blue stars are the hottest stars.

4th clue: Astronomers measure a star's brilliant might, The energy it gives, its luminous light. To find the next clue, think of a place, Where something shines bright, lighting up the space.

The answer to this riddle leads students to find an object or area in the classroom associated with light or brightness, such as a light bulb, a lamp, or a window where sunlight enters. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Astronomers also measure luminosity — the amount of energy (light) that a star emits from its surface.

5th clue: A star's light fades as it travels the night, Its distance revealed by its dimming light. Astronomers trace how far it has come, To find the next clue, seek where shadows are hung.

The answer to this riddle leads students to find an object or area in the classroom associated with shadows or places where light is dim, such as under a desk, behind a curtain, or near a bookshelf. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: By looking at how dim the star has become once it reaches Earth — astronomers can determine the distance to the star.

6th clue: In the 17th century, a tool brought delight, Revealing more stars, hidden from sight. A telescope's view makes the cosmos vast, To find the next clue, seek where you learn from the past.

The answer to this riddle leads students to find an object or area in the classroom associated with learning about history or the past, such as a history book, a timeline on the wall, or a display of historical artifacts. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: The telescope, introduced in the 17th century, revealed far more stars than what the human eye can see.

7th clue: When meteor showers light up the night, Many meteors fall, a spectacular sight. Entering Earth's atmosphere, a sight to adore, To find the next clue, look near the classroom door.

The answer to this riddle leads students to find the last clue near a classroom door.

Fact associated with this clue: The “stars” from a meteor shower come from a constellation! For instance, the Lyrids meteor shower occurs each April and is known for fast and bright “shooting stars.” Debris from comet Thatcher enters the Earth’s atmosphere causing the light show. Lyra, the harp constellation, is the approximate location from which to see this meteor shower.

Location where last clue leads: Hooray! You've successfully unlocked the secrets of the stars and completed our stellar scavenger hunt. But your cosmic journey doesn't end here! It's time to unleash your creativity and become star scholars by creating posters with the fascinating facts you've discovered. So grab your markers, unleash your imagination, and let the stars guide you as you craft your stellar masterpieces. May your posters shine as brightly as the stars themselves!

Clues for Group 3

1st clue: A flash in the sky, a dazzling sight, A shooting star in the dark of night. But it's a meteor, burning bright and fast, To find the next clue, look where paper falls to.

The answer to this riddle leads students to find an object or area in the classroom associated with things falling or descending, such as a wastebasket or an area where paper is filed. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: A shooting star is actually a fast moving meteor! Rock burning up and entering Earth’s atmosphere.

2nd clue: The longest constellation, a serpent of the sea, Hydra slithers where the southern stars be. In the night sky, it takes its place, To find the next clue, seek something with a face.

The answer to this riddle leads students to find an object or area in the classroom that has a face on it. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Hydra, known as the sea snake, is the longest constellation and seen in the Southern Hemisphere

3rd clue: Stars are glowing, gas-filled and bright, Hydrogen and helium make up their light. Look where things are inflated with care, The next clue is hiding somewhere there.

This riddle leads students to find an object or area in the classroom associated with inflation or gas, such as a balloon, an air pump, or an inflatable globe. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Stars are made up of gas, hydrogen and helium.

4th clue: The nearest star to Earth, shining bright, Gives us warmth and daylight's light. To find the next clue, seek something sunny, Where warmth is shared, and things are sunny.

The answer to this riddle leads students to find an object or area in the classroom associated with the Sun, warmth, or light, such as a sunny window, a picture of the Sun, or a heat lamp. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: The sun is the nearest star to Earth.

5th clue: Meteor showers light up the night, Stars seem to fall, a beautiful sight. From constellations they come, like Lyrids in spring, Find the next clue where constellations bring.

The answer to this riddle leads students to find an object or area in the classroom associated with constellations or star maps, such as a poster of constellations, a star chart, or a ceiling decorated with glow-in-the-dark stars. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: The “stars” from a meteor shower come from a constellation! For instance, the Lyrids meteor shower occur in April each year in the Northern Hemisphere.

6th clue: Stars seem to twinkle in the night's embrace, Due to Earth's atmosphere, their light shifts place. Winds and temperatures play a part, Find the next clue where weather charts start.

The answer to this riddle leads students to find an object or area in the classroom associated with weather or atmospheric conditions, such as a weather chart, a globe, or a science display about weather. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: The Earth's atmosphere including winds and varying temperature affect how we see the light of stars on Earth, so stars appear to be twinkling at times!

7th clue: In the heart of stars, where temperatures grow, Hydrogen burns, making helium glow. This fusion of nuclei powers their light, To find the next clue, seek where science burns bright.

The answer to this riddle leads students to find an object or area in the classroom associated with science and bright light, such as a science experiment station, a periodic table, or a brightly lit science poster. The next star clue will be hidden nearby or attached to this location.

Fact associated with this clue: Hydrogen burns to form helium that makes stars glow. This process is called nuclear fusion.

Location where last clue leads: Congratulations, intrepid explorers! You've successfully unlocked the secrets of the stars and completed our stellar scavenger hunt. But your cosmic journey doesn't end here! It's time to unleash your creativity and become star scholars by creating posters with the fascinating facts you've discovered. So grab your markers, unleash your imagination, and let the

stars guide you as you craft your stellar masterpieces. May your posters shine as brightly as the stars themselves!

Constellation Light Box

A hands-on project for at home, an integrated art class or science course!

Common Constellations seen in the Northern Hemisphere:

- Ursa Major (Big Dipper)
- Ursa Minor (Small dipper)
- Polaris (The North star)
- Aquarius
- Aquila
- Aries
- Cassiopeia
- Gemini
- Leo

Common Constellations seen in the Southern Hemisphere:

- Phoenix
- Grus
- Tucana
- Eridanus
- Hydrus
- Lupus
- Cruz
- Centaurus
- Carina

Supplies:

- One 12x12 or larger sheet white cardstock (thicker than printer paper).
- Small square piece of cardboard (about 5" square)
- Constellation templates – select from the hemisphere of your choice!
- Paintbrushes
- Galaxy paint colors! – black, purple, blue, pink, turquoise, gold, glittery
- Battery powered string lights

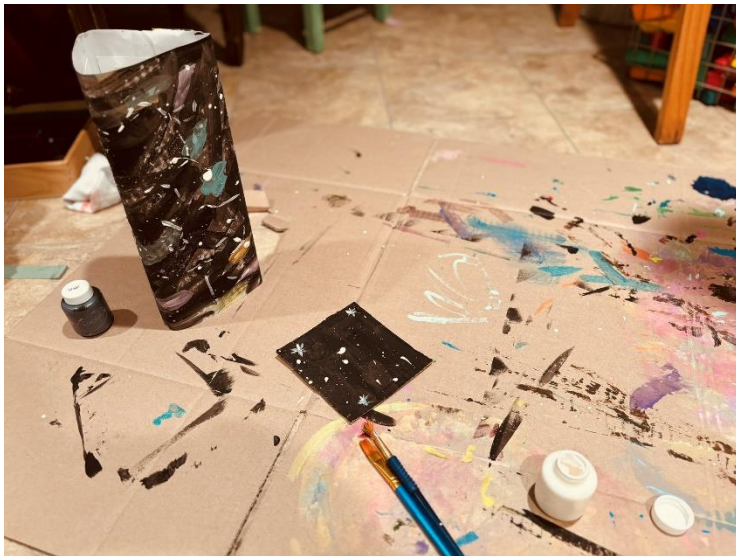
- Tape
- White paint
- White gel pen (optional)
- Push pin
- Pencil

Steps:

Box formation:

1. Begin by creating the box out of your 12x12 cardstock. Fold the paper in thirds to make a triangular prism shape and tape the connecting sides of the paper together.

Creating the galaxy:



2. Next, grab your galaxy paint colors! Paint a bit of black leaving some white areas unpainted on your light box.
3. Next, grab your other galaxy paint colors and paint the open white spaces with some overlap onto the black as well.
4. Once dry, splatter a little bit of watered down white paint all over the box for some distant stars. Practice shaking your brush onto another sheet of paper first. Let dry.
5. Paint the small square of cardboard in black with spotty stars as well. Let dry.

Creating the constellations:

6. Once all is dry, with the white gel pen (or fine paint brush and white paint), make tiny dots for the constellation patterns you want on the outside of the triangular box. Let dry.
7. With your push pin, push through the box where the dots of the constellations are, circling the push pin around in the hole to make the circle as large as able before removing.
8. Paint white thin lines to connect each constellation's dots. Let dry.

Make it shine!

9. Place the box on top of the base.
 10. Gently drop in your sparkly lights inside the box from the open top. You can gently open the base to turn on or off the lights.
 11. Admire your constellation light box!
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Swirling Stars Solar System

Watch the stars swirl in your own solar system in a jar!



Supplies:

- Clear jar with screw top lid
- Glitter stars such as gold, silver, blue and iridescent
- Polymer clay in various colors
- Paper clips or craft wire
- Clear glue
- Vegetable glycerin (if available)
- Waterproof glue

Steps:**Jar prep:**

1. Spread a thick amount of dark polymer clay on the inside of the jar lid to serve as a universe base for the solar system. Then test that the jar will still screw onto the jar. If so, go on to step 2!
2. Attach pieces of bendable craft wire or folded out paper clips in the base, enough for your sun and planets. This would be 8 planets and 1 sun for our Milky Way galaxy (or 9 planets if you'd like to include Pluto!). You should have a lid holding up the number of objects, then twist to desired locations or designs!

Make the Solar System:

3. Let's make the solar system! Mix colors of polymer clay into different size balls to make colorful planets and attach them one by one to the wire. Create a large sun in the center wire. Don't forget strips of clay to create rings on some of your planets! Then, place the lid in the oven on a baking sheet and bake to the temperature and time the package of your polymer clay tells you to.
4. Once your planets are done in the oven and cooled. Paint each one with a coat of clear glue and let dry.
5. Pull entire planet structure with base off of the lid and reattach with a water proof glue. Let dry.

Final steps!

6. Let's create the star filled galaxy! Fill the jar halfway with water. Next, add a good pour of some vegetable glycerin or clue glue. Add more water if needed to fill up almost to the rim of the jar. Then, add a good amount of star glitter and swirl!
 7. Place the solar system in the jar and screw the cap on tight. Swirl and marvel at your swirling stars and solar system!
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Constellation Origami

Create a fun, interactive game to learn about constellations and their characteristics.

Supplies:

- Neon colored square origami paper, or cut paper to square size about 9 inches
- Markers or pens
- Ruler
- Stickers or images of constellations (could be printed, cut out and attached with a glue stick)

Steps:

Prep the paper:

The process described below is to make a classic fortune teller or cootie catcher.

Searching online for a video tutorial may be helpful. Here are the step by step instructions:

1. Start with a square piece of paper. If you don't have a square, you can make one by folding a rectangular piece of paper diagonally across to the opposite edge, cutting off the excess.
2. Fold the paper diagonally in both directions (corner to corner) and unfold it. You should have two diagonal crease lines forming an "X".
3. Fold the paper in half horizontally and vertically and unfold it. Now you should have crease lines forming a "plus" sign in the middle of the "X".

Create the Foldable Game:

4. Bring each corner to the center of the paper, folding them neatly to meet at the center point where all creases intersect.
5. Flip the paper over so the flaps are facing down.
6. Bring each new corner to the center again, folding them neatly to meet at the center point.
7. Fold the paper in half, making a rectangle, and crease it well. Then unfold.
8. Fold it in half the other way, making another rectangle, and crease it well. Then unfold.
9. Make it 3D! Flip the paper back over. You'll see four squares and openings at their corners in the center. Slide your pointer finger and thumb from both hands under flaps. The origami should shift inward and upward. Congrats! Your folding is done.

Label and Decorate:

9. On the outside of the origami, write: North (for Northern Hemisphere), South (for Southern Hemisphere), Animals, & Figures on each of the four flaps (one on each flap).
10. Next, open the paper and you should see 8 triangles folded. Write the name of 2 types of constellations from each of the 4 categories written. Place one name on each triangle.
11. Then, lift the flap and draw the corresponding constellation underneath the flap (or add a sticker or glue a picture here), showing the pattern of the stars. Write a short fact or characteristic about each constellation next to the drawing.

Play and Learn:

14. Use your constellation game by having a friend choose one of the outer categories. Spell out the category name opening and closing the origami alternately.
15. Let them choose a constellation name and repeat the opening and closing motion as you spell it.
16. Have them choose another constellation name and then lift the flap to reveal the constellation drawing and read the fact or characteristic about it.
17. Repeat and take turns!

Host a School Star Festival!

Host a school-wide event that celebrates stars and celestial objects through observation, activities, and learning experiences.



Below are suggested star stations that could be included at your school-wide festival:

- **Science experiments** – such as star life cycle in a jar, star brightness comparison, twinkling stars test
- **Telescope viewing** – families or local astronomy chapters can bring telescopes for shared viewing
- **Constellation tours** – prior to the event, student teams create posters or 3D replicas of constellations to be displayed. A scavenger hunt game can be incorporated to find the constellations with various attributes.
- **Rent a portable planetarium** – search for local companies such as SkyDome Planetarium and Skylab that offer inflatable planetariums for a unique experience to learn about the stars
- **Space related snacks** – celestial decorated treats provided from a local bakery or volunteered by parents such as Moon Pies, starfruit, or other creative concoctions
- **Student skits** or presentations – student groups research and write scripts for short skits on star topics that may include constellation myths, astronomy history, star sizes, Galileo or the Milky Way
- **Star stories** – students trace constellations over transparencies learning how the same constellation is viewed differently around the world. Books about constellations are also on display to check out.
- **Art projects** – such as a constellation viewer or pipe cleaner constellations
- **Guide to observing meteor showers** – a crash course about meteor showers, types of equipment for observation, and when and how they occur
- **Speakers** from a local astronomy chapter or scientists via online meeting can be guests of honor