

Mission to Space! Curriculum Guide

LOOK **MAKE** **SHARE**



Thomas Broadbent Lunar Mosaic Challenger Craters, Watercolor on Paper, 2016

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About the Exhibition ***Mission to Space!***

Children’s Museum of the Arts is pleased to announce *Mission to Space*, an exhibition about the mysteries of outer space and how it continues to challenge our imaginations. As life on Earth faces a volatile future, outer space emerges as a destination of refuge, peace, and infinite possibility.

A mission to Mars is no longer a feat we can only dream about, and spacecraft are reaching planets that were once only barely perceptible on a clear, starry night. Space research has advanced tremendously since the 1960’s Space Race era, but the challenges of technology, politics, and human nature have reshaped our notions of outer space. *Mission to Space* features a selection of works that traverse the theme of space exploration—its history, limitations, and potential.

In each of their works, artists Thomas Broadbent, E.V Day, Michael Kagan, Nina Katchadourian, Tom Sachs, Masayoshi Sukita, Penelope Umbrico, and Andrew Zuckerman examine the galaxy and our relationship to it. The exhibition’s paintings, sculptures, photographs, installations, sound, and video works depict outer space as a realm of enormous opportunity and reveal the dynamic social changes of nearly 50 years since the launch of the Soviet Sputnik satellite.

Exhibiting Artists: Thomas Broadbent, E.V Day, Michael Kagan, Nina Katchadourian, Tom Sachs, Masayoshi Sukita, Penelope Umbrico, and Andrew Zuckerman

Essential Questions

What is a mission?

Why would somebody want to go on a mission to space?

A mission has a purpose. When astronauts go into outer space, they have a mission to go on an adventure to explore and learn new things about space.

What is space?

What may you see in space?

What allows us to travel to space?

The word space can refer to outer space or physical space such as this museum space or the distance between places. In outer space, there is a solar system of planets including our own planet earth. You can travel to space on a spaceship.

In this exhibition, artists make artifacts inspired by outer space either by using their imagination to transform materials to make their own space objects or using real objects from space.

Curriculum Overview

LOOK MAKE SHARE

Rationales

CMA's interdisciplinary curriculum facilitates the arts being integrated across disciplines towards the learning goal of enhancing creativity in the classroom as well as teaching students about the societal, cultural, and historical significance of art. This curriculum infuses the arts in core subjects, including language arts, social studies, science, and math.

Pedagogy & Methodology

This curriculum infuses CMA's pedagogy of LOOK, MAKE, SHARE along with the learning approaches of Project Based Learning (PBL), Inquiry-Based Learning, Universal Design for Learning (UDL), and Multiple Modalities. This guides students to:

LOOK: at and engage with contemporary artworks through inquiry-based dialogue and multi-sensory activities and make connections to their lives and the world.

MAKE: artworks inspired by interdisciplinary themes from the exhibition and concepts from the real world and their imagination.

SHARE: their artwork with their peers and the community through a reflective discussion describing both the process and meaning.

Learning Approaches

Project-Based Learning (PBL): enables students to engage in a project to investigate and problem solve real world situations by making meaningful connections.

Inquiry-Based Learning: facilitates learning by asking questions to encourage students to provide their own interpretations and investigations prior to being provided with facts and information.

Universal Design for Learning (UDL): provides a framework to make learning accessible for all types of learners including those with special needs through multiple means of representation, action and expression, and engagement.

Multiple Modalities of Learning: encourages different sensory experiences and entry points into learning such as visual, auditory, tactile, and kinesthetic.

Glossary

Appropriation: using pre-existing object or images with little or no transformation.

Artifact: an object made by a human being, typically an item of cultural or historical interest.

Asteroid: a large, irregularly shaped object in space made of rock or metal that orbit our sun.

Constellation: a group of stars that forms a pattern or shape of a mythological figure or object.

Deconstruction: the transformation of an original form by distorting and dislocating parts of an object or image.

Found Object: a natural or man-made object that an artist finds.

Function:

Germination: the process of a seed growing into an organism such as a plant.

Ironic: using words that mean the opposite of what you really think especially in order to be funny.

Radiation: the transmission of energy in the form of waves or particles through space.

Supernova: the last stage of a star's life marked by a final explosion.

Suspension: the state of an object being hung in the air with materials such as wire or string.

Systemic: relating to a system.

Tulle: a soft, fine silk, cotton, or nylon material like net, used for making veils and dresses.

Zodiac: a belt of the heavens including the positions of the sun, moon, and familiar planets. It is divided into 12 parts/zodiac signs including (Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, Pisces).

LOOK For Lesson 1

Teacher Directive: Print and/or project glossary of terms and images in this guide. You can find more images at CMA's Flickr Album titled *Mission to Space!*

Image 1: Andrew Zuckerman

Anatoly Artsebakky's MIR EO--9 Glove, Finding Material, 1991

Lunar Rake, Finding Materials, 1969

Space Exposed Tomato Seeds, Framed Tomato Seed Packet, 1984

DESCRIPTION (Appropriation & Function): Andrew Zuckerman appropriated space objects with different functions by displaying them as art.

QUESTIONS: What do you think the function of these objects are? What do these objects remind you of?

FUN FACTS (Radiation & Germination): The glove was used in 3 Extra Vehicular Activities (or spacewalks), which coincided with the Soviet coup attempt that paved the way for the fall of the USSR.

This Lunar Rake was used by Apollo astronauts in training to simulate the collection of soil samples from the moon's surface.

To study the effects of weightlessness and radiation on living organisms, NASA developed the SEEDS project, sending 25 million seeds into orbit on for six years, then distributing them around the USA for germination experiments.

Image 2: Tom Sachs, *Backup EVA Glove*, Tyvek, Cotton, Polyester, Plywood, Thermal, Adhesive, Electronics, 2007

DESCRIPTION (Artifact): Tom Sach's experiments with models of space artifacts and developed his own life-size *SPACE PROGRAM*.

QUESTIONS: How is Tom Sachs's *Backup EVA Glove* similar or different to Andrew Zuckerman's *Anatoly Artsebakky's MIR EO--9 Glove*?

FUN FACT (Appropriation): In a new twist on Tom Sach's appropriation of corporate identity, he reproduced the space gloves inspired by the original design and created to add to the detailed inventory of his own funky space odyssey.

Lesson 1: Mixed Media Space Travel Suitcases

Activity: Students will make mixed media space travel suitcases using found objects, recycled materials, and art materials.

Objectives: Through making mixed media space objects students will learn that they can:

- 1) Make objects inspired by both outer-space and personal interests/surroundings from own everyday world that have different functions to help them travel and explore
- 2) Transform the meaning and form of recycled materials in a variety of different ways (bend, fold, twist, collage, attach, arrange, stack up high/low, build out wide/narrow)

Materials: Base: Cardstock

Recycled Materials: Paper - Straws, Towel Rolls, Cups, Shapes, Strips for Handles

Art Materials: Pipe Cleaners, Metallic Mesh

Adhesives: Foam Stickers

Details: Small Colored Circle Stickers, Gems, Buttons, Pom-Poms

MAKE

Opening Statement: What types of artifacts did we see on our mission to space? We saw that artists made artifacts inspired by outer space either by using their imagination to transform materials to make their own space objects or using real objects from space.

Topic Question: What would an astronaut take to travel to space?

Recap: We learnt that astronauts may take different types of objects with different functions. They could take a rake to pick up asteroids, gloves to protect one's hands, a space suit and helmet for oxygen, and packets of space food to eat.

Visualization: Today, you will be making your own space travel suitcase. What personal objects from your everyday world would you pack in your suitcase to travel to space?

Recap: We learnt that we can pack a variety of objects inspired by both outer space and our own world. Also, each of these objects has different functions to help us travel on our mission to space.

Transition: How will you start making your space travel suitcase? What size will your suitcase be? (small/big, short/tall, narrow/wide) What can you fit inside the space of your suitcase? What types of materials will you use? How will you use and transform your materials?

SHARE

How did you create your suitcase? (space of suitcase and objects inside) What function do the objects in your suitcase have? How do they help you travel to space?

Image 1: Andrew Zuckerman

(Top Right) *Anatoly Artsebak's MIR EO---9 Glove, Finding Material, 1991*

(Bottom Left) *Lunar Rake, Finding Materials, 1969*

(Bottom Right) *Space Exposed Tomato Seeds, Framed Tomato Seed Packet, 1984*



Image 2: Tom Sachs, *Backup EVA Glove*, Tyvek, Cotton, Polyester, Plywood, Thermal, Adhesive, Electronics, 2007



LOOK For Lesson 2

Image 3: E.V. Day, *Bridal Supernova*, Barbie Bridal Gown and Accessories, Monofilament, Fishing Tackle, Steel Cage and Stand, 2006

DESCRIPTION (Suspension): Day's work explores themes of feminism and desire, while employing various suspension techniques and reflecting upon popular culture.

QUESTIONS: How does this artwork reflect outer space? What material do you think the artist used?

FUN FACT (Supernova, Tulle, & Deconstruction): *Bridal Supernova* is a humorous outburst and response to the commercial traditions of Bridal culture. This miniature bridal gown was custom hand stitched for a Barbie doll, representing hours of laborious detail and in turn is deconstructed with the same intensity of purpose. In this work the satin, lace, tulle and sequins are reconstituted with fishing tackle and hardware into the image of an exploding star. Now that you know the title of the artwork is *Bridal Supernova*, how does this change your interpretation of the work?

Image 4: Nina Katchadourian, *Popcorn Asteroids #1,#2,#3,#4 and #5*, Silver Gelatin Prints Mounted on Aluminum

DESCRIPTION (Ironic & Systemic): The underlying concept of Nina Katchadourian's work is often marked by a sense of humor, characterized by a playful, intelligent, ironic and systemic reordering of natural processes.

QUESTIONS: What do these artworks remind you of? How does Nina Katchadourian's *Popcorn Asteroids* represent outer space similarly or differently than E.V. Day's *Bridal Supernova*?

FUN FACT (Asteroid): Nina Katchadourian has magnified photographs of popcorn until they resemble extraterrestrial bodies of asteroids, bringing us full circle to indecision on the Moon and exposing the literally fragmenting surfaces of her objects.

Lesson 2: Collaborative Constellation Animations

Activity: Students will make collaborative stop-motion animation films of constellations using art materials.

Objectives: Through making animation films, students will learn that they can:

- 1) Invent new stories using their imagination inspired by outer space and the everyday world
- 2) Make new shapes and forms that come together to create a constellation
- 3) Transform the meaning and form of art materials

Materials: Tech Equipment & Art Materials (Black Paper, Colored Pencils, Stickers, Scrap Paper)

MAKE

Opening Statement: Opening Statement: What did we see on our mission to space? We saw that artists made artworks inspired by outer space by using their imagination to transform materials to make their own objects that represent forms in outer space.

Topic Question (Constellation): What is stop-motion animation? How can we tell stories through animation? What is a constellation? How do constellations tell stories?

Recap (Zodiac): In stop-motion animation, one photo/frame of an object is taken at a time and playing back the sequence shows the movement of the object. Through stop-motion animation, we can tell stories through images and movement. Also, constellations tell stories. Constellations are a group of stars that come together to create an image such as the Zodiac constellations of animals and objects.

Visualization: Today, we will be using technology and art materials to make collaborative stop-motion animation films of constellation stories in small groups. What type of constellation will you make? (real/imaginary people, animals/creatures, objects)? How will the lines/stars travel/move through the space?

Recap: We learnt that we can work together and use stop-motion animation to make our constellation stories by arranging stars and connecting them with lines to create new forms.

Transition: How will you start making your constellation animation? How will you arrange your stars? How will you use lines to connect the stars? How will you move/transform your materials?

SHARE

Let's watch our film clips of our games with and without music. How does music change the film clip and the mood of the animation? How did you work as a team to animate your constellation? How does your constellation tell a story?

Image 3: E.V. Day, *Bridal Supernova*, Barbie Bridal Gown and Accessories, Monofilament, Fishing Tackle, Steel Cage and Stand, 2006

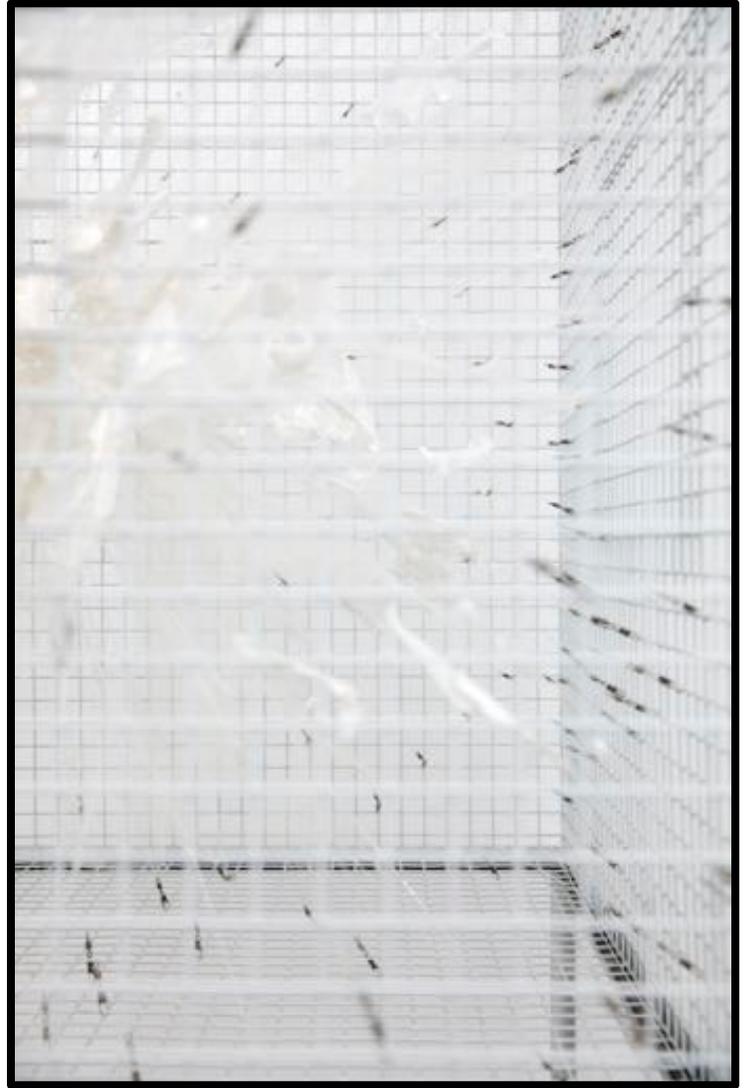


Image 4: Nina Katchadourian, *Popcorn Asteroids #1,#2,#3,#4 and #5*, Silver Gelatin Prints Mounted on Aluminum

