

Mars Stargazers

The participants constructed kaleidoscopes through which to search for Mars. They first decorated their own kaleidoscope with markers, and then filled small cups with colorful beads to create the “stars” in outer space. They placed a triangular mirrored tube inside their kaleidoscope. Everyone was encouraged to consider the designs that were reflected inside, and the way that different levels of light affected the view. The students then journeyed outside with their tools to look into the sky for a clearer view of the “stars” and search for the red planet with their Mars viewfinder.

The construction of kaleidoscopes provided a fun introduction to the Imagine Mars project, allowing the participants to truly let their imaginations run wild while learning about the ways that a kaleidoscope is crafted and introducing them to the red color on the surface of Mars.

Magnetic Poetry

The participants worked together to create a magnetic poetry board for their community. After learning different facts about Mars, the participants each took turns choosing the ones that they liked best, typing them out and applying them to self-adhesive magnetic backing. Once they had secured all of the facts, they stood in front of the class and read the fact aloud, before cutting the facts into individual words. When they had read for the class, they put the magnets onto the board, creating poetry, writing sentences, and making up their own “facts” using the information. The group went outside after they had finished all of the facts to spray paint an image of the planet Mars and a black background onto their poetry board. Throughout the study of Mars, the participants have continued writing new poetry and mixing up the words on their board.

The project was constructed to give the participants a creative and fun outlet through which they could exercise their poetic minds throughout the year. By creating their own poetry set, they were freer to tangle words and express themselves through writing. Using the information that they were learning about Mars created a hands-on environment for them to remember that information, and the performance aspect of the project encouraged the participants to feel comfortable speaking in front of each other. The poetry they wrote was sometimes silly and sometimes very factual, but all of the participants studied the words closely and freely arranged them on the board. The participants have always loved the art of graffiti and painting with spray cans, and by allowing them this creative outlet in a safe and supervised environment, they have learned to use the paint responsibly.

Imagining Mars

After learning about and studying actual pictures of the surface of Mars, the participants were encouraged to visualize and further imagine what textures might be found on the surface of Mars for this study of close-up photography. The participants were taken outside individually, and worked with an instructor to discuss ideas for what might closely resemble the surface texture of the planet. They were given the camera and learned how to set it to take close-up photographs, as well as learning how to properly focus the lens and steady the camera. Each student chose five textures to photograph, and each photo was printed as an 8x10 print. The resulting photos show the variety of textures here on Earth, and the participants' imaginations at work.

One of the first projects during our journey, the photo project truly encouraged the participants to imagine Mars. It encouraged them to look not only at their community and environment closely, in a truly microscopic approach, but also to compare it to what they imagined the environment on Mars would be like. Through examination of the texture and surfaces right in their own backyard, they were each able to find a unique aspect of their environment and through this discovery, capture a minuscule moment in a beautiful and profound way. As the individual photos came together to create a unified piece, the personalities of the photographers were evident, and yet when all the photographs are grouped together there is a unique and beautiful holistic piece of art representing the great value of individual personalities woven together.

Landscape Sculptures

The participants began their study of landforms getting their hands dirty and experiencing the dips and ridges on the surface of Mars. Beginning with a stack of photos that were taken on Mars, the participants discussed which landforms are found on both Earth and Mars, and the differences between the planets' surfaces. They discussed the sizes, depths, and look of the landforms, and related it to what they know about those found on Earth. Next, the participants each chose a photo to recreate and re-imagine in clay (sometimes abstractly), choosing craters, volcanoes, and rocky expanses. The participants from the Jumpstart program (ages 3-5) completed the project, painting the landforms red to mimic the colors of the Martian landscape.

As the participants began their study of the Martian surface, the goal was to provide a tactile relationship to the material that would carry over as they considered the scientific elements of the planet. Through relating the landscape to the landscape of Earth, an area that they know and experience, they were able to understand the features of the Martian ground more clearly. Using clay to shape the features that they chose, the participants began to understand and better remember the shapes and structures that they were crafting.

Envisioning “My Mars”

The participants worked together to create a list of the things that they wanted to take with them to Mars. They thought first about the things they would personally pack in their bags, and then about the larger landscape and the ideas that they would want to include in their own community. A group of the participants made a list on the board, while others brainstormed and discussed what would be most important. After the collective discussion, each student received an outline of the Mars apartment. They used markers to color their own vision of what the apartment should look like when it was complete, including everything from pizza, to hot tubs, to a park, and family.

The project was a great way for the participants to begin really thinking about their own community here on Earth and the ideas and items that they would employ to build their new, “ideal” community on Mars. Using the structure of the apartment that would serve as the space in which to design and implement their own vision of community allowed the participants to feel a sense of ownership over the space, as well as allowing their creativity to unfold without fear of “mess ups” before they finalized the actual creation.

Mars and Earth Comparisons

The participants were introduced to the factual, scientific differences between the planets of Earth and Mars. Through discussion, review, and worksheets, the participants began to note the differences and recognize them on an instinctual level. Once the participants had a grasp of what made each planet unique, the participants participated in a live pop quiz. Using “Mars Stars,” the instructor created true and false statements that related to written facts on the stars. As the participants answered the questions correctly, they were given their relative stars to decorate with markers. Once the stars had been colored, the participants helped place them on the “star wall” in relation to either Mars or Earth, depending on the information given.

The Mars Stars project was a great way for the participants to engage in the material, learning the differences and likenesses of Mars and Earth. Through the competitive nature of the pop quiz, the participants worked hard to remember the facts that they had learned and were able to reinforce the information through hands-on coloring. Carrying the project through with the hanging of the facts encouraged the participants to remember and reconsider all of the facts, as well as providing a strong visual reminder of what they had learned throughout their study of Mars.

Mars Glasses: Protecting Our Eyes from UV Rays

Beginning our study of what fashion would be like on Mars, the participants were introduced to the harmful effects of UV rays and the high radiation on Mars. They began thinking about the weather variables and the need for extra protection for themselves as they built their community. After creating a list of the dangers, as well as a list of suggested protective devices and clothing design techniques, the participants created individual pairs of sunglasses for their journey. Using cardboard cutouts, they painted, glittered, and glued feathers to create fashionable and creative styles.

The project was a great introduction to the "fashion on Mars", as the glasses served as a solid crossover between Mars and Earth. It provided a point through which the participants could relate the environmental concerns that would affect their lives on Mars to the ways in which they are affected here on Earth by certain elements. The participants discussed UV rays, the damaging aspects of them, and the importance of sunscreen and sunglasses. They were able to explore the need for protection here on Earth, in their everyday lives, while learning about aspects of the Martian environment, including strong radiation, thin atmosphere, and heavy winds. Through creativity, they developed their own eye for design, and yet were able to push the boundaries of the expected as they designed for a whole new planet.

Mars Mobiles: Exploring Wool

In preparation for the construction of clothing for their community, the participants were introduced to the extreme temperatures on Mars. They began their understanding of textiles- considering where they come from, the animals and plants that produce the materials we use here on Earth, and the process by which it is turned into a wearable item. Beginning with unbleached sheep's wool, the participants were encouraged to feel the soft fibers. They were next taught the art of felting, during which each student wet his/her piece of wool and rubbed it between his/her hands to feel the changes as the individual fibers took hold of one another. The participants chose four felted balls for themselves, to represent the sun, the planet Mars, and the two moons of Mars, Phobos and Deimos, as well as a strand of felted stars. Each student dyed his/her sun yellow, using fabric dyes, and dyed Mars in a deep red. Each student created a hanging mobile to represent Mars relationship to the sun and its' moons.

As the participants began their study of fashion for Mars, they were encouraged to take a closer look at the clothes they wear here on Earth. By developing an understanding of fabric and the processes by which it is created, the participants experienced a tactile relationship with the clothes they wear, as well as being introduced to the two moons that are on Mars. As the majority of the participants had never handled raw wool, they were able to see and feel first-hand how fabric is created, learning the intricacies of the interlocking fibers and the direct sources of wool. The dying process allowed them to consider color and individualize the project, and through the creation of mobiles, they were encouraged to practice balance and come to understand the effects of the weight of the object, as well as the length of the rope and its effect. The participants' knowledge of the two moons that exist on Mars was visualized for better memorization, and the study focused on the extremely low temperatures on the surface of Mars, providing a crossover for the creation of a wardrobe that will adequately prepare the participants for these temperatures.

Road Map for a City on Mars

The participants worked together to consider the elements of a city that they wanted to build on Mars. They brainstormed the important physical aspects of their community here in Tanglewood and the surrounding area and made a group list of what buildings would go up in their Martian environment. They discussed the value of public transportation, the need for green space and growing gardens, and the difficulty but necessity of creating waterways. Once they had determined the most important aspects on their list, the participants discussed the layout of the city and placed foam buildings, parks, and other features onto the map. They named the buildings and landmarks to represent the individuals they admired on Earth, chose the places they would like to live, and created roads that they felt would allow efficient travel throughout their community.

The project was a great way for the participants to consider what they value in community, as well as giving consideration to those aspects of their own community that they would like to change. Working together to create a list of exports, the participants had discussions with one another that encouraged thoughts about individual values and the effects of those on the surrounding environment. They were encouraged to think about healthy eating, sustainability, and safety in their community. Through the building of roadways, the participants were able to connect their own homes to those spaces and places that they found most important, identifying individual preference. Lastly, by naming the buildings on Mars through the use of “heroes” here on Earth, the participants thought closely about whom they respect and the people they would like to emulate. They considered what makes those individuals worthy of their admiration, and discussed the ways in which they are like those individuals, as well as ways they would like to be more like them.

Architecture: Building on Mars

The participants began considering what their community would look like on Mars. Beginning with a study of architects and structures from around the world on Earth, they studied the art of Frank Gehry, Gaudi, futuristic building plans, and mud huts in Africa. They discussed different building materials, and talked about the need to recycle in their new community. Using a visual inspiration board from which to draw ideas, the participants each drew their own design for a house or building on Mars using graph paper and a ruler. After completing their ideas on paper, they gathered materials from the recycling bin and built houses, hotels, castles, and skyscrapers. They added amenities such as hot tubs and porches and worked with the instructors to find ways to make them sturdy. The participants painted their buildings using different colors and techniques, and some participants designed interior furniture and floor plans.

The study of architecture was a great way to introduce the participants to the various building techniques and designs here on Earth. Working with the designs of architects from around the world, the participants were forced to think deeply about their own ideas of what a house/building looks like, and the ways that the boundaries can be expanded. Through the study of individual architects, the participants were able to see the visionary craftsman at work, using a specific theme and incorporating and evolving designs over time. The participants saw the use of very different materials, and discussed the importance of material as they develop architecture in their Martian community, where the materials they know might not be available. Through the use of recycled materials, the participants considered the value of recycling in their community.

Considering Skylines

Continuing the discussion of what they imagined their community to look like on Mars, the participants began thinking about the city image as a whole. They created a community from the houses they had built, and inspired by the work of Montana artist Andy Smetanka, used an inspiration board of skylines from cities across the world. The participants began with a study of geography, trying to figure out from the photographs the city where the image was taken. Once they had determined the city name, they competed to see who could place the city in the correct country. The participants used the world map to find the country and city on Earth. Afterward, they each chose a background color of tissue paper and black construction paper to create a silhouette of the skyline they imagined for their community on Mars. The participants added moons and chalk details to complete their art.

The project was a great way for the participants to begin not only thinking about their own community vision, but to think about architecture as a whole. They were encouraged to point out landmark buildings that helped them place a city, including the Superdome in New Orleans, the Eiffel Tower in Paris, and the Golden Gate Bridge in San Francisco. They discussed the ways in which architecture can define a landscape, and the importance of relating individual buildings to those surrounding it. Using the study of architecture was also a great way for the participants to engage in a geography review. As they tried to guess the city that belonged to the individual skylines, they thought deeply about the studies they had previously engaged through their *Virtual Vacation* travels. Searching the map of the Earth gave them a great visual aid as they scoured the continents for the correct placement. Putting the ideas that they learned into practice, the participants created varied and interesting art pieces to exhibit their own ideas.

Community Flag

The participants began their design for the community flag considering the use of signs and symbols here on Earth. They looked at flags from around the world, focusing on the design as well as the history of the American flag and what it stands for. They also discussed different symbols that are used to promote ideas, focusing on the bold colors and quick recognition that these symbols inspire. Using an inspiration board of different signs and symbols, they discussed the meaning and value of these in a community. After they had thought about ways to encourage recognition of an idea, the participants made a list of the values that they considered important for a community. Using the dry erase board, they made a list of the values that they wanted to promote on Mars. Next, the participants took turns drawing symbols that would encompass these ideas, incorporating what they know from here on Earth. The participants voted on the values in order to choose the four most important to them as a group, and the symbols that greatest represented these. The participants next painted the flag in four bright colors and cut the chosen symbols from colored felt, which they glued onto the flag. Once the flag was constructed, the participants chose to further promote understanding and helpfulness in their community, gluing a photo of their hands, “all hands in,” in the center, around which they wrote the words that the symbols stood for.

The creation of the flag for their Martian community was a fun and deeply considered project. Through the use of symbols, the participants began thinking about the promotion of values here on Earth and in the United States. It was a great way for the participants to communicate with each other about what they respect and would like to encourage, and the process by which the individual values and symbols were chosen promoted cooperation within the group. The participants listened to each other’s ideas carefully and, through a vote, democratically chose the values that represented the group as a whole.

Art in Motion: Centrifugal Force and Gravity

The participants continued their study of gravity and the effects it has on both Earth and Mars, reviewing the facts that they had learned previously. Using a trampoline, the participants jumped to feel what it might be like on Mars, where the gravity is one-third that of the Earth's gravity, and then thought about the rotation of the Earth and Mars and the effect that gravity has on the rotation. Using the Spin Art painting method, the participants created galactic images that portrayed the effects of centrifugal force and discussed the ways in which gravity helped secure them to the ground. The participants worked together to create beautiful images with both paint and glitter, experimented with dragging objects across the paint as the paper spun, and were able to see light at work with a photography lesson.

The participants were able to engage in a scientific idea using a hands-on method that was both fun and informative. Combining the review of gravity with the new information of centrifugal force was a way to reinforce the importance of the different gravity forces between Earth and Mars. By using the camera to capture the image in a flash, the participants discussed the way that light and time affects our vision and found amazement when they snapped flash photos as their images spun beyond recognition with the naked eye.

Self-Portraits: Me on Mars

The participants discussed the effects of levels of gravity on the muscles of the body, as well as the great need to retain muscle mass and work hard on Mars. The participants also considered the effects of air pressure on the physical aspects of their bodies. Throughout the discussion, each one drew a picture on the board for the class to see what they imagined their bodies to look like as a result of the gravitational and pressurized differences when they arrived on the surface of Mars. Next, the participants discussed why they imagined these changes would take place and the reality of what actually would happen to their bodies. The participants each chose a medium and drew or painted a self-portrait of themselves, realizing these changes in their drawing.

The study of self-portraiture is an interesting and creative way to engage the mind and portray the ways that individuals view themselves. Using the art of self-portraiture to reflect scientific aspects of the Martian environment, the participants were not only encouraged to engage with the scientific material, but to explore their own personalities through chosen materials. The resulting portraits depict the variety of personalities amongst the group, and allow the participants a chance to portray their own vision of themselves as well as explore and practice different art mediums and techniques.

My Personal Exploration: Journal Making

The participants began the year creating personalized journals to document their experiences and thoughts. Using heavy watercolor paper, they created colorful covers with a wax relief technique, drawing in crayon underneath the application of watercolor paints. They painted a picture or scene on the cover of their journals, and then wrote their names and titled the journal on the back. Next, they filled their journals with blank paper to be filled and tied each together with a string.

Through the creation of the journals, the participants created a private space to express themselves creatively without fear of judgment from their peers. The journals have served as a great place for creative writing, art, and collage. Encouraged to write freely in their own time, the participants were able to create their own designs that they could alter, add to, or erase.

Mapping the Solar System

The participants began this activity with a journal entry describing what it would be like to leave the Earth and journey to Mars. They considered the things they would hear, the colors they would see, and the way it would feel to be in outer space. After journaling, the participants were introduced to the planets, first by name and a spelling bee, and then learning the order in relation to the sun and to each other. Next, everyone chose a foam planet and went outside. They arranged themselves around the foam sun, mapping the location of each, and “orbited” the “sun”, noting the different sizes of orbit and the differences in time. When everyone returned inside, they colored their chosen planets with markers, noting the specific characteristics of each, and placed them on a long “space” background that they had painted and glittered. When the students moved into the Mars apartment, they transferred their map to the wall.

Combining the imagination of outer space with the facts of our solar system, the participants worked on spelling, memorization, and spatial relations in this project. They were able to physically experience the movement of the planets and detail the individual planets creatively, while staying somewhat close to the defining characteristics. Through this in-depth study, the participants can accurately place both Mars and Earth in the solar system, and using this physical placement, have been able to relate the facts that they are learning about the planet Mars and the differences between Earth and Mars back to this information.

Fantastic Fashions

The participants began the study of fashion reviewing facts about the weather and gravity conditions on Mars. They discussed the temperature and atmosphere, as well as using the trampoline to renew an understanding of the effects of lower gravity on the body. They discussed the ways that the clothes they would wear would be different in the Martian environment, and the materials that they would use in their designs to compensate for the different environment. They made a list on the board of different materials and clothing items, and each designed fashions on templates, labeling what would make the clothing unique to the Mars environment, including fur and wool for warmth and weights edging certain clothing to encourage muscle strength in response to gravitational differences.

Once they had the designs in their heads, the participants gathered in the Mars apartment to begin construction of their outfits. They used felted wool, fluffy white fur, and various patterned fabrics to create skirts, pants, and warm shawls and belts to wear in their new environment. Some of the students painted on the fabric, and others layered patterns for aesthetic effects.

Hats on Mars

The participants discussed not only the low temperatures on Mars, but also the atmosphere and harmful UV rays that would affect their wardrobe. They chose colored felt and foam and created fashionable hats to help them keep warm and protect their eyes from the harmful rays of the sun.

Graffiti Garden

The participants began their study of a Mars community garden with rollers and paintbrushes, painting an outdoor garden fence a deep green. Next, they created a list of their favorite healthy fruits and vegetables, discussing what vitamins and nutrients were present in each and how they positively affected the body. They used an inspiration board of exotic plants and vegetables from around the world to provide visual inspiration, and created stencils of the way they imagined the garden to look on Mars. Using spray paint, the participants graffitied the wall to create a fun and vibrant garden representing the bright colors and shapes they wanted in their garden on Mars.

Claymation Workshop

Working with local filmmaker, "Mr. Dave", the students were introduced to the art of filmmaking and the particular art of claymation. He introduced everyone to the overall art of filmmaking as well as providing an explanation on how a film camera works and the way it captures images on film. The participants discussed what aspects of their journey and community that they wanted to portray in their short animation film, and began constructing their figures out of clay. They made the surface of both Earth and Mars, figures they would pass in outer space, a spaceship to travel on, and figurines representing themselves. Everyone worked together to very slowly and carefully move the figures while Mr. Dave filmed the movements in individual shots. Everyone had a chance to view the film while it was being made and the product before editing, and they came together to create sound effects for their film.

This project was an amazing opportunity for the kids to not only meet a professional filmmaker but to learn about filmmaking as art as well as a vocation. It provided them with a tactile way to create and simulate their own journey from Earth to Mars by sculpting people, rockets, and other images that were used in the process. Giving the children an opportunity to participate in an art medium (animated movie making) that each was very familiar with allowed the instructors a relatable way to easily engage the children in science, including length of travel time from Earth to Mars, the overall concept of space travel, as well as discussions of stars, meteors, and other elements found throughout the galaxy.

The Street Mural on Mars

For the design of their “Main Street” in their Mars city, the participants worked together to create a list of the buildings that they would like to display in the Mars apartment. They considered which buildings were the most important to them as a group, and chose to paint a hospital, a “rocket fuel station,” an art museum, and a pizza parlor, recognizing that the two large rooms in their Mars city would represent a school and a house on Mars. They also discussed the need for green space and growing orchards in their community. Once the final decisions had been made, the participants worked with painter’s tape to draw out the designs of the buildings on the wall. Recalling previous lessons on architecture, they discussed the placement, shape, and design of the buildings, and worked together to decide which color paint they would paint each building. Once the decisions had been agreed upon, the students painted the walls with rollers and detailed them with paintbrushes. They chose to fill the doors of the rooms which lead to the "school" and the "house" with orchards-growing pears, oranges, and apples, which they painted freely once the buildings were complete.

This project took into consideration many of the previous projects that the participants had worked on, working with the ideas for the most important aspects of their community, the study of architecture, health and wellness studies, and the skills they had gained through large-scale mural painting. They were encouraged to create their own ideal community downtown, and were able to execute the project with great insight. The students drew from what they had learned, choosing the buildings and working together to design the shapes and sizes of them on the wall, working in a scale much larger than they were used to. They thought deeply about sustainability and green space, and created a layout that allowed for this important aspect of their environment. Naming the buildings was a great project of ingenuity, and they drew from what they had learned of outer space and Mars to create the names.

International Welcome to Mars

The participants worked on their geography and phonics skills during an activity to welcome all cultures from around the world to their community on Mars. Using fifteen language translations of the word “welcome,” everyone first worked together to figure out how to pronounce the unfamiliar words that they saw, sounding them out in syllables. Next, they tried to guess what language it was written in. Once everyone determined the correct language, they found a country on the map of Earth where the language is spoken. When all of the languages had been discussed and countries discovered, everyone discussed the importance of creating a community where everyone feels welcome. Each child chose a welcome sign and painted it in bright colors to hang in the Mars apartment.

The participants not only worked on basic reading and geography skills for this project, but were also exposed to the importance of openness and equality in creating a peaceful community. By including so many languages, the students were encouraged to think about the different places where the languages are spoken, the differences in lifestyles and cultures around the world, and the ways that these differences can create richness when woven together. The participants raised concerns and questions, and dialogued in an open way about creating and maintaining peace in their community.

Flavoring Mars

The participants began their study of food on Mars with an introduction to the spice trade here on Earth, and the various flavors that are found around the world. Discussing the diversity on Earth, they took turns smelling a group of about 20 different spices and seasonings, tasting some of them, and making guesses as to what part of the world from which they originated and what foods they were used in. Next, they discussed what they wanted to take with them to Mars to continue the diversity of flavors. They made a large poster displaying the different spices and referenced a visual inspiration board to inspire thinking about the labels and look of the foods on Mars.

This project took the participants not only around the world, but back in time as well. Looking at original maps of the spice trade, the participants were encouraged to discuss discovery and connection in a time before the internet and cell phones. The participants also explored their own senses through immediate contact with unfamiliar flavors and odors, feeling the texture and trying mentally to place the flavors with familiar foods. The participants discussed how variety here on Earth could be transported to Mars, and the importance of recognizing this variety in their daily lives.

Mars Landscape: Mural Painting

The participants created wall-sized murals of different aspects of the Martian landscape. They began their painting in sections, laying down base colors with rollers and brushes to create the background of the mural. The students discussed the areas of landscape that they were creating, and painted in bright reds, oranges, and browns. Once they had developed a base for the murals, they worked with instructors to develop and understand shading, crafting smooth movement from one area of the wall to another. The teens worked on a more detailed mural of the Martian craters to serve as the backdrop for the 3-d crater that has been constructed.

The process of mural painting provided not only a great opening for discussion about the Martian landscape and environmental factors on the planet, but also opened an artistic door for the participants. The luxury of having an open space with which to design and create, as well as having an introduction to tools and materials, was a great way for the participants to get a feel for large-scale artwork. The students enjoyed learning about techniques for painting, experiencing a roller for the first time, and learning the art of shading.

Water? Wall

The participants were introduced to the weathering of soil and earth by the movement of water. They looked at pictures that compared the land on Earth with the canyons found on Mars and discussed whether or not they thought there might be water, or have once been water, on Mars. After the students finished the discussion, they gathered on the patio for a demonstration of water's effect while running over sand, and they looked at the crevices that were formed as the water ran. Next they gathered in the Mars apartment to work with stucco to create a surface that resembles the Martian landscape and suggests that there was once a moving water system on Mars. They looked at the pictures of the surface and recreated it using palette knives and pencil tips in the stucco.

This project was a great hands-on project for the students to begin their understanding of the creation of gullies and canyons, both here on Earth and on the planet Mars. Using the sand and water demonstration provided a direct view of the way that water moves earth, and working with stucco, the students were able to interact with the material to create 3-D images and physically move the "earth" around. The project also provided an introduction to a new material and new tools, working with stucco and palette knives. This project provided a greater understanding of building materials while employing a fun activity for the participants.

Creating the Sun

The participants read a copy of *The Very Hungry Caterpillar* by writer and illustrator Eric Carle, discussing and paying close attention to the artwork. Next, they chose colors and tissue paper, and painted designs and patterns on the tissue to begin to recreate and understand the process by which Carle creates his art. Once the paint was dry, the students crushed the tissue and glued it to a large yellow background, creating a sun for the Mars apartment that bursts with color and flames. The students added gold glitter to the sun for more depth and hung it on the solar system wall.

This project provided not only an introduction to the scientific make-up of the sun, but a visit inside the head of one of the great illustrators of children's books. The participants' familiarity with the work of Eric Carle provided an accessible bridge to the art, and through a tactile relationship with the materials that he uses, everyone was able to better appreciate and understand his artwork. The textures of Carle's work provided the participants with a multi-layered approach to a single piece of artwork, and through crumpling and crushing the papers, the participants created a large, flaming sun to complete their map of the solar system.

Mars Calendar

The participants had a lesson about the time and seasons on Mars, and discussed the differences that would exist in a Martian calendar from the calendar here on Earth. They calculated the time differences on the board, and decided to add eleven new months to the Earth calendar that they are familiar with. Considering the origin of the names of the months in the Earth calendar, the students chose words that they felt related to both the community and landscape of Mars, as well as where they are coming from here on Earth. After they had a full list of ideas, the students gathered in the computer lab to translate the chosen words to Latin, which they made a list of on the board. The students looked at the words that they had found, and took turns creating brand new month names out of both the root of the words and the words themselves. They began decorating their calendar to reflect the English meaning of the words they had chosen.

The project not only provided a review of the time and season differences that exist on Mars, but also provided the students with a study of the calendar here on Earth. Using a study of Latin, the students were introduced to that language and encouraged to learn the Latin roots of words that are prevalent in languages around the world. The dissection of the vocabulary will serve as a base to further their understanding of the creation of language and the relevant meaning of individual words.

Plastic Bottle Table: From Landfill to Lunch Table

The participants studied the route that their garbage takes, from use, to garbage truck, to landfill, to begin this project about the importance of recycling. Imagining a cleaner Mars environment, everyone discussed the large amount of trash collected in landfills on Earth and discussed ways to reuse items on Mars. Everyone discussed the ways in which a group of homeless children in Brazil collect empty two liter plastic bottles to create sturdy furniture. Using plastic water bottles that the participants had collected for recycling, the participants cut the tops off of the bottles and removed the labels. Next, they began layering the bottles inside of one another to create a strong base to be used in the construction of a table for their Mars apartment. Once they had completed four legs, using several bags full of plastic bottles, they found a recycled cardboard box and created a tabletop. The participants painted their tabletop in a faux-finish to resemble a wooden table where they could enjoy a meal.

The project was a great way for the participants to put into practice some of the many ideas that we have discussed throughout the creation of our Martian community. Having discussed in-depth the importance of recycling and a healthy environment, the students were able to create a useful alternative to the trash that had collected during this project in the Mars apartment. By creating a table, they specifically tackled an issue previously unresolved, the creation of furniture for their community, while simultaneously depleting a growing “landfill” in their community. Using the faux-finish technique was a fun way for the participants to “dress up” their creation, as well as introducing them to a new art form that they can continue to work with in the future.

Map of Mars

The participants worked together to create a map of the planet Mars based on a map created by NASA. They identified high and low ground, volcanoes, craters, and the ice caps at the poles of the planet. Using colored paint and creating their own textured paint, they created the map and discussed the location and important landmarks that have been identified on Mars. Next, they created fact stars to hang in the outer space around the planet Mars drawing on what they had learned throughout their study of the planet, and created labels for the landmarks that they identified.

Throughout their studies of culture and geography at the Brighten Up center, the participants have worked with map-making as a way to understand and engage in new places around the Earth. By creating a map of Mars, the students were able to create a visual of the placement of certain structures and areas that they had studied, as well as relating it back to the other places that they had “traveled” to in the past.

Martian Holidays

The participants had a discussion about the holidays that they would like to celebrate on Mars. They chose several holidays and wrote them on their Martian calendar, and were able to celebrate them here on Earth as they occurred. For Halloween, they discussed the playful and creative nature of the holiday, the physical aspects of their own imagined “Martians,” and the best materials to use in the creation of Halloween masks. The participants each created their own foam “Martian” mask, using buttons, pom-poms, and markers, to wear on Halloween.

The participants also chose to celebrate Martin Luther King, Jr. Day in their new community. They began the celebration with the teens, who read aloud outside from King’s famous “I Have A Dream” speech. Afterwards, the participants gathered inside the center to discuss his dedication to the community and to service, and they wrote letters to the elderly about their own dreams for the future. The students worked on individual felt pieces, painting their dreams in bright colors and finally sewing the squares together to create a bright “I Have a Dream” quilt to take with them to Mars. The celebration ended with a delicious king cake.

The holidays are always a special time in the Tanglewood community here on Earth, and the participants had fun discussing which ones they would like to continue after their move to Mars. The mask-making was a great project for stretching creativity, and was also a great area to equate the fictional existence of Martians on Mars to that of goblins and monsters in their community here. The celebration of Martin Luther King, Jr. was a project designed for the participants to engage in service in their community and consider their own personal dreams for a brighter future both in Tanglewood and on Mars. In seeing the quilt take form, the participants saw the way that their small contribution helped form a larger whole and impacts the environment.

Rocket Ship to Mars

The participants discussed the length of the journey to Mars and the best way to travel such a great distance to reach their new community. Working together, they used paper mache to craft a jumbo rocket that would carry them through outer space. They painted the rocket ship in their favorite colors and added a viewing window. Once their rocket ship was complete, they gathered instruments from the Brighten Up Center and traveled to the Mars apartment. They celebrated the journey with a musical march through the apartment that ended on the porch, where they landed the rocket and began discussing their own ideas about how to transform the space. Returning inside, the participants each chose a space on the wall and wrote secret messages to the people and places that they were leaving behind on Earth.

The activity was a great introduction to the Imagine Mars project. The participants were able to experience not only a mental leap to outer space and a new planet, but through the lateral move from their community center on Earth to their new “home” on Mars, experience the physical move as well. By celebrating with instruments and a parade, the participants opened the space with a feeling of joy and freedom. Writing on the wall was a great way for the participants to immediately feel a sense of ownership over the space, as well as providing an initial space for them to express their fears and excitement about the coming project.

Garden Poetry

The participants worked on writing and revising poems about the gardens and flowers on Mars. They discussed what the plants might look like, how we would carry them with us on the journey, and the need for healthy living in their new community. After completing a final, revised draft of their poem, the participants stood in front of the room to share their poetry with their friends. They rewrote the poem on heavy paper, and colored and decorated their poems with buttons and beads to hang on the wall.

The students engaged their literary minds in this project focusing on health and wellness in their community on Mars. Discussing healthy living styles and the importance of nutrients in our diets allowed the students to explore their own eating styles here on Earth and encouraged them to think about the ways they would like to eat. As they wrote their poetry, they were encouraged to make corrections and revise carefully and thoughtfully, while learning the creative methods that are involved in constructing a poem. By sharing their poetry with the class, the participants took pride in their work.