

Creating a Travel Brochure for Mars

Objectives

Students will:

- compare and contrast the planets Earth and Mars
- view examples of commercial art.
- create an original space travel brochure for the planet Mars.

Suggested Grade Levels

3-5

Subject Area

Art

Timeline

2-3 class periods (45 minutes each)

Standards

Visual Arts

Making connections between the arts and other disciplines

Understanding and applying media techniques and processes

Understanding that there are various purposes for creating works of visual art

Science

Identify and describe a variety of objects in the universe

Abilities of technological design

Science and technology in society

Background

Throughout time, humans have been fascinated with the Universe. Greeks, Romans, and Native Americans (as well as other cultures) created myths to describe what they saw in the sky. More recently, our space exploration has been centered on the Moon and Mars. Scientists and Astronomers are determined to put humans back into space within the next 10 to 20 years.

Sir Richard Branson, along with Virgin Galactic have even devised a space tourism division where everyday people and families will soon be able to travel into space, experience zero gravity, and witness our Earth from outside of the atmosphere. The starting rate for one of these space vacations is around \$250,000 per person.

Vocabulary

Planet, Mars, Tourism, Galactic, Universe, Commercial Art, Astronomy, Brochure, Travel, Vacation, Compare, Contrast, Venn diagram, Orbit, Climate, Landscape, Axis

Materials

Virgin Galactic Video Brochure, 8.5x11" white drawing paper, colored pencils, crayons, markers, sharpies, example travel brochures, Mars Rover Videos from NASA (Spirit and Opportunity footage) or NOVA video "Welcome to Mars"

Lesson

1. **ENGAGEMENT:** Discuss space travel with students. How many have heard of missions to the moon? Show the video brochure on Virgin Galactic of future space travel orbiting around the Earth. (www.virgingalactic.com)
2. Once students have viewed the brochure, discuss their favorite "Earth vacations." What kinds of activities do they enjoy? What types of places does their family usually go? How do they think Mars would be similar or different to Earth?
3. **EXPLORATION:** In partners, students should brainstorm what they think Mars will be like. What do they imagine the planet to contain? After brainstorming, they should view the videos of the Mars Rover footage. How did their guesses about Mars compare to the real photos of the planet? Discuss the climate and landscape of Mars. On the board, have students help create a Venn diagram of comparisons between Earth and Mars. (Can show PowerPoint "Earth and Mars, A Comparison of the Two" as a supplement as well.)
Similarities: Tilt of Axis, dry land, 4 seasons, 2 polar caps, approximately 24 hour days, contain water, contain craters and canyons, evidence of rivers, atmosphere
Differences: Earth is larger, Earth's atmosphere is mostly nitrogen, Mars' is mostly CO₂, Seasons last longer on Mars, Earth has one Moon, Mars has two, Mars is MUCH further from the sun, Mars has dust storms, Earth has rain, Earth's average temperature is 57, Mars is negative 81, Earth has life, Mars may or may not.
4. **EXPLANATION:** So, why do we care about all of these similarities and differences?! Well, if we are going to be travelling to Mars one day for vacation, we need to know what to expect! Show the students some examples of travel brochures from Earth locations (i.e. Disney World, Florida, Colorado, the beach, the mountains, a variety of terrain and temperature spots). Discuss how art applies to these brochures (photography, graphic design). Define Commercial Art (art that is meant to persuade people to buy a product or advertise a specific object or place). As a class, brainstorm some features of Mars that may be appealing for vacation. How could they use the photos and footage from the Mars Rover in their own brochure?
5. Demonstrate to students how to fold a piece of drawing paper into a tri-fold brochure. Discuss what the brochure should incorporate. How will they catch a potential buyer's attention with colors, pictures, and descriptions? Using the Earth brochures as a guide/reference, students should create a unique brochure advertising future travel to Mars with markers, colored pencils, and pencils. They should be using creative thinking skills to determine what types of activities will be offered on Mars. (Prompt students with: What will the view look like from the space ship on the way to Mars? How will the deserts, canyons, mountains, and other landscape features appeal to different people?)

Extensions

Once students create their brochures, hold a gallery at school displaying the student brochures as well as the videos and Venn diagrams that students created. The students can discuss what they've learned about space travel, commercial art, and the planet Mars as their parents and other family members enjoy the artwork. They can also give family members information about real-life future space travel from Virgin Galactic. (There is a printable book on the web site about space travel.)

Evaluation/Assessment

Students will self-evaluate their brochures using the rubric attached. They will also participate in a group critique where they discuss whose brochures were the most successful in advertising travel to Mars. (The most successful brochure will have illustrations of the activities, pictures of the landscape, detailed descriptions about the planet, and words that grab the viewer's attention.)

Resources

Debates, Brian. Mars Base Project: A Comprehensive and Integrated Space and Science Curriculum. Master's Thesis. Regis University, 3333 Regis Blvd., Denver, CO. 80221. May 2005

Virgin Galactic. www.virgingalactic.com. Let The Journey Begin. (Flash player video)

Mars Travel Brochure

Rubric

Name: _____

Date: _____

Please circle the score that you think you earned on your brochure (1=Lowest, 10=Highest)

1. Creativity (completely original design, imaginative, colorful, etc.)

1 2 3 4 5 6 7 8 9 10

2. Craftsmanship (neat, followed directions, well-organized)

1 2 3 4 5 6 7 8 9 10

3. Use of Media (safety practices were followed, materials were handled respectfully)

1 2 3 4 5 6 7 8 9 10

4. Persuasion (Text uses lots of exciting vocabulary to get people interested in going to Mars)

1 2 3 4 5 6 7 8 9 10

5. Features of Mars (activities mentioned in the brochure reflect the facts about Mars studied during class)

1 2 3 4 5 6 7 8 9 10

Student Comments:

Teacher Comments:

Total Points: _____ x 2 = _____/100