

Valley View Charter Unit 2

Mission to Mars

GRADE LEVEL(S)

5

ARTISTIC DISCIPLINE

STEAM

INTEGRATED SUBJECT

Mission To Mars

TEACHING ARTIST

Tam Helenske

UNIT

2

LESSON TITLE

Mars- The Search for life

CONTENT STANDARDS (VAPA + COMMON CORE)

1-6.VA:Cr1.1, 1-6.VA:Cr1.2, 1-6.VA:Cr2.1, 1-6.VA:Cr2.2, 1-6.VA:Cr2.3, 1-6.VA:Re7.1, 1-6.VA:Re7.2, 1-6.VA:Cn10

LEARNING OBJECTIVE

Students will be introduced to projects, tools and programs designed by NASA to explore Mars. Students will be prepared through understanding and examples how to use similar tools used for Mars, to explore their campus..

MATERIALS NEEDED

Large monitor
HDMI Cord (Artist provides)
Network Access
Thermal imagery camera (Artist provides)

MAIN ACTIVITY

After Unit 1 Activity (30 minutes) students will be introduced to NASA's Mars Odyssey, THEMIS system, presented in a short educational video.

Following THEMIS introduction students will be engaged in a "Curiosity and Question" session. The questions would focus on exploring Mars surface and what can exist under Mars surface and how to discover it through the use of color and temperature.

Following the Question session I will present a short educational video that explains how and what tools are used to detect water on mars.

Unit 3 Introduction (Day 2):

I explain to students how they will document color temperature for various objects and search for an underwater source on campus. What colors and temperature will need to be found to identify underground water sources. And how we will use a Thermal Imagery camera.

ASSESSMENT

Students will take the knowledge and understanding of NASA THEMIS System and the tools used to detect water and why water on Mars is important. These new tool skills and understanding will be applied to Unit 3 where students will capture images based on hot/cold objects and warm/cool color understanding from Unit 1.

TIMELINE UNIT 2

Unit 1 and Unit 2 lessons are combined (30 minutes for each unit).

April 24-28th

Supplies purchased/collected/prepared

May 4th, 2023:

30 minute set-up (Artist arrives 10:00 pm)

Class 1: 10:35-11:35 a.m.

Class 2: 11:35 a.m-12:35 p.m.

Class 3: 1:15-2:12 p.m.

30 minute clean-up (Artist)