



The Sun & Solar System

Total Unit Running Time: 25-40 minutes

NGSS Addressed: MS-ESS1-1, MS-ESS1-2, MS-ESS1-3

FIELD TRIP: **Journey to Apache Point Observatory**

Running Time: 5:35

Mark Klaene, Apache Point Observatory Site Manager, along with VVR Host, Steve Grubbs, guide students through the inside of the Astrophysical Research Consortium (ARC) 3.5M Telescope—where no public is allowed to go. Students learn about how the telescope and lens function, while watching the apparatus prepare for use. For more information visit: apo.nmsu.edu

INTERACTIVE EXPERIENCE: **Traveling Our Solar System**

Running Time: Self-guided

Students explore our solar system by viewing the planets, Sun, and Moon at their own pace, from the vantage point of being in space. When students stare at any significant structure for 3 seconds, a pop-up list of characteristics and facts about that particular body appears.

THEATER 1: **Sun, Earth and Moon**

Running Time: 5:30

NGSS: MS-ESS1-1, MS-ESS1-2, MS-ESS1-3

Topics Covered

- Gravity, mass, orbits
- Earth's axis and impact on hemispheres, seasons
- Sun and Moon: lunar phases and eclipses

Assessment Answer Key & Critical Thinking Skills

1. C (BT1—knowledge)
2. A (BT1—knowledge)
3. D (BT4—analysis)
4. C (BT2—comprehension)
5. A (BT3—application)

THEATER 2: **Planets of Our Solar System**

Running Time: 5:02

NGSS: MS-ESS1-3

Topics Covered

- Planets' sequence and characteristics
- Scale properties of objects in the solar system

Assessment Answer Key & Critical Thinking Skills

1. C (BT1—knowledge)
2. A (BT2—comprehension)
3. D (BT4—analysis)
4. D (BT4—analysis)
5. B (BT4—analysis)

TEACHER DEMO: **Planets with Wendy Martin**

Running Time: 5:31

NGSS: MS-ESS1-2, MS-ESS1-3

Topics Covered

- Scale properties & rotation of planets
- Planet characteristics

Assessment Answer Key & Critical Thinking Skills

1. A (BT1—knowledge)
2. B (BT4—analysis)
3. C (BT2—comprehension)
4. D (BT6—evaluation)
5. A (BT3—application)