



Human Impact on the Environment

Total Unit Running Time: 25-35* minutes

NGSS Addressed: MS-ESS3-2, MS-ESS3-3, MS-ESS3-4

FIELD TRIP: **Muir Woods National Monument, CA**



Running Time: 4:19

NGSS: MS-ESS3-4

North of San Francisco deep in the Muir Woods, Steve Grubbs, VVR Host, talks about the interdependence of humans and plants. Stand amid the giant Redwoods while learn about the characteristics of these ancient trees, as well as how they impact climate change.

For more information visit: nps.gov/muwo/index.htm

INTERACTIVE EXPERIENCE: **Banana Breakout**



Running Time: Self-paced*

Banana Breakout is similar to a traditional single-player pong game, but in this version, the student aims a bunch of bananas at correct answers to a proposed question. Monkeys hold the correct responses, and if "fed", will increase the student's score. Tigers hold incorrect answers, and if they receive the bananas, the student's score will decrease. Students begin with 3 lives, only losing one each time they miss catching the bananas. The goal of this interactive game is to play through as many levels of increasing speed before all lives are lost, building a maximum score.

THEATER 1: **Career Day**



Running Time: 6:54

NGSS: MS-ESS3-2

Topics Covered

- Role of a meteorologist
- Causes and effects of tornadoes

Assessment Answer Key & Critical Thinking Skills

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

THEATER 2: **Towns: Dark & Quiet**



Running Time: 6:54

NGSS: MS-ESS3-3

Topics Covered

- Darwin's experiences and discoveries aboard the HMS Beagle
- Darwin's theories of natural selection and evolution

Assessment Answer Key & Critical Thinking Skills

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

TEACHER DEMO: **Weather with Wendy**



Running Time: 6:20

NGSS: MS-ESS3-2

Topics Covered

- Weather vs. climate
- Inside of the National Weather Center
- Overview of hurricanes, tornadoes, floods, blizzards

Assessment Answer Key & Critical Thinking Skills

1. C (BT1--knowledge)
2. D (BT3--application)
3. B (BT4--analysis)
4. D (BT5--synthesis)
5. A (BT1--knowledge)