



Molecules to Organisms

Total Unit Running Time: 25-35* minutes

NGSS Addressed: MS-LS1-1, MS-LS1-2, MS-LS1-3, MS-LS1-8

FIELD TRIP: Therapy Dog Clinic

Running Time: 5:25

NGSS: MS-LS1-8

Join VVR Host, Steve Grubbs, as you wash your worries away at the therapy dog clinic along with Gizmo and his handler, Katie Grant, licensed psychotherapist. Learn about the effects of biochemicals, specifically oxytocin, and how its varying levels affect our nervous system. Gain a better understanding of therapy dogs and their positive impact for humans, particularly after traumatic and stressful events. For more information, please visit KatieGrantCounseling.com/biographies-1.html

INTERACTIVE EXPERIENCE: Cell Tour

Running Time: Self-paced*

Students step into a laboratory with a 10-ft human cell that slowly rotates, revealing its many parts. Interacting with this animated virtual cell, students get to see the sizes, shapes, and scales of the interworking components. The various functions of the cell parts and how they interact with each other are revealed by brief pop-ups that appear as students stare at any of the brightly-colored elements.

THEATER 1: Cell City

Running Time: 6:39

NGSS: MS-LS1-2, MS-LS1-3

Topics Covered

- Cell parts, structure & function
- DNA vs. RNA
- Cell and systems synergy

Assessment Answer Key & Critical Thinking Skills

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

THEATER 2: How We Work

Running Time: 6:46

NGSS: MS-LS1-3, MS-LS1-8

Topics Covered

- Body systems
- Connection and complexity of body systems

Assessment Answer Key & Critical Thinking Skills

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

TEACHER DEMO: Exploring Organs With Wendy

Running Time: 6:23

NGSS: MS-LS1-1, MS-LS1-3

Topics Covered

- Characteristics of cells
- Tissue types, body systems
- Mammals heart, kidney, brain

Assessment Answer Key & Critical Thinking Skills

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