



## GRADE 7 LIFE SCIENCE

# Genes & Inheritance

Total Unit Running Time: 30-40\* minutes

NGSS Addressed: MS-LS3-1, MS-LS4-4, MS-LS4-5, MS-LS4-6

### FIELD TRIP: **Cinnamon Ridge Farm, IA**



Running Time: 13:26

NGSS: MS-LS4-4, MS-LS4-6

On a mechanized dairy farm in the Midwest, VVR Host, Steve Grubbs, and John Maxwell, farm founder and owner discuss modern farming practices. The topics of selective breeding, robotic farming, and plant/fruit crossbreeding are reviewed. Natural breeding vs. GMOs is covered, too—you will never look at apples the same way again. View this trip to see the future of agriculture on this high-tech farm. For more information visit: [TourMyFarm.com/our-cows.html](http://TourMyFarm.com/our-cows.html)

### INTERACTIVE EXPERIENCE: **Escape Castle**



Running Time: Self-paced\*

Learners start deep in the VictoryVR Castle which rests on a remote island. The goal is to escape the castle and reach the gates, but at each door stands a troll blocking the exit. To make it past the troll in each room, students accurately respond to a question or puzzle. An incorrect answer provides students another opportunity at the prompt. After three wrong responses, the game resets.

### VIRTUAL COMIC BOOK: **Rosalind Franklin**



Running Time: Self-paced\*

#### Topics Covered

- Highlights of Franklin's life
- Contributions toward discovery of double helix DNA

#### Assessment Answer Key & Critical Thinking Skills

1. C (BT3--application)
2. C (BT2--comprehension)
3. D (BT5--synthesis)
4. A (BT1--knowledge)
5. B (BT4--analysis)

### THEATER 2: **Biological Blueprints**



Running Time: 7:13

NGSS: MS-LS4-4

#### Topics Covered

- Asexual vs. sexual reproduction
- Concepts of genetic code, genes, gene modification, mutation

#### Assessment Answer Key & Critical Thinking Skills

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

### TEACHER DEMO: **Blood Drive with Wendy**



Running Time: 6:51

NGSS: MS-LS3-1, MS-LS4-5

#### Topics Covered

- Characteristics and symptoms of sickle cell anemia
- Process and benefits of gene therapy

#### Assessment Answer Key & Critical Thinking Skills

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