

Name: _____

Lights, Camera, Science!

Aligned to the following standards:

FFA.PL-A1; FFA.PL-A3; FFA.PL-A4; FFA.PL-C2; FFA.PL-F5; FFA.PL-I5; FFA.PL-J1; FFA.PL-N1;
CCSS.ELA-RI.9-10.4; CCSS.ELA-RI.11-12.7; CCSS.ELA-W.9-10.2; CCSS.ELA-W.9-10.4;
CCSS.ELA-SL.9-10.2; CCSS.ELA-L.9-10.1; CCSS.ELA-L.9-10.2; CRP.02; CRP.04; CRP.06;
CRP.08

Part 1

Directions: Answer the questions below as you watch the video “Poultry Science SAE,” available at <https://vimeo.com/1148062258>.

1. What FFA chapter does Ruby represent?
2. What state is Ruby from? Draw it here:
3. What is Ruby's SAE? Explain it in two or three sentences.
4. What are five responsibilities that Ruby has in the lab?
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5. What safety measures does Ruby have to take?
6. How did Ruby get started in her SAE?
7. How does Ruby's SAE affect the agriculture industry?
8. What has Ruby learned through her SAE?
9. According to Ruby, why should other students join FFA?

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Part 2

Directions: You will research a real biomedical research project that is currently happening. This should be something scientists, universities, hospitals or government agencies are actively studying right now. Fill in the activity sheet below as you research.

Approved research topics could include:

- Disease detection and diagnostics
- Vaccine or immune system research
- Genetics and precision medicine
- Microbiome (gut health) research
- Environmental health and disease
- Biosecurity and disease prevention
- Technology (AI, data, imaging) in medicine

1. Research Topic Title:
2. Who is conducting this research? (University, hospital, research center, agency, etc.)
3. What problem is this research trying to solve?
4. What are scientists doing in this research? (What are they studying or testing?)

5. How is biotechnology used?

(Check all that apply and explain one.)

- ☐ Lab testing
- ☐ Genetic analysis
- ☐ Data collection or analysis
- ☐ Disease detection
- ☐ Medical technology
- ☐ Other: _____

Explanation:

6. Why does this research matter? (Health, agriculture, food safety, disease prevention, society, etc.)
7. Safety or ethics consideration (Example: PPE, biosecurity, data privacy, animal welfare, human safety)

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Part 3

Directions: Your goal: You will create a 60- to 90-second educational video explaining this research to other students.

Video Must Include:

- The problem
- The research being done
- How biotechnology is involved
- Why it matters
- One career or SAE connection

VIDEO RUBRIC

Area	4 Points	3 Points	2 Points	1 Point
Content	All content is accurate. There are no factual errors.	Most of the content is accurate, but there is one piece of information that seems inaccurate.	The content is generally accurate, but one piece of information is clearly inaccurate.	Content is confusing or contains more than one factual error.
Clarity and Creativity	The video is easy to understand, and all elements are clearly written or spoken. Creativity was used.	The video is easy to understand, and most elements are clearly written or spoken. Some creativity was used.	The video is hard to understand with very quiet speaking or very hard to read writing. Little creativity was used.	The video is hard to understand, and one cannot follow the thought process. No creativity was used.
Narration and Preparedness	The video is clearly rehearsed and presented with no mistakes.	One mistake is heard in the video.	Two mistakes are heard in the video.	Three or more mistakes are heard in the video.
Time	Student stayed in the 60- to 90-second time frame.			Student was either under or over the allotted time frame.

Total: _____

Reflection Questions:

1. Why is research important to the agriculture industry?
2. How does biomedical research connect to the food system, even if it's not directly agricultural?