6th Grade Science
STEAM Integration

Unit 2: Metabolism	Topic: Digital Art and Design	Time: 4 Days

Standards:

MS-LS1-1 Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells

MS-LS1-2 Develop and use a model to describe the function of a cell as a whole and the ways parts of cells contribute to the function.

MS-LS1-3 Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

MS-LS1-8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories

ISTE 1.6– Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Scenario	Your body needs energy to do everything—from walking and breathing to thinking and growing. But most people don't realize that this power comes from a microscopic process happening in every single cell! Your challenge: Create a 30-second PSA (public service announcement) to teach the world about cellular respiration—the process your body uses to turn food and oxygen into energy. Your video should be clear, creative, and convincing! Your PSA should include: • The inputs and outputs of cellular respiration • How energy (ATP) is made • One example of how ATP powers a body system Use visuals, voice-over, music, or animation to get your message across quickly and memorably.
Success Criteria	Students can identify the inputs and outputs of cellular respiration, illustrate the transformation of energy, explain how the energy supports a body system, use digital tools creatively, and clearly communicate the process in a 30-second PSA.

Lesson Outline	Day 1 – Tech Tools: Intro to Canva & iMovie
	• Warm-Up (5 min)
	  ○ Ask: "Have you ever made a video before? What makes a video fun to watch?"
	• Activity (35 min)
	  ○ Teacher demonstrates key tools in Canva and iMovie:
	  ■ Creating a new project
	  ■ Adding photos, video clips, animations, music, and text
	  ■ Voice-overs and timing tools
	  ○ Students follow along on devices and test basic editing features (e.g., add a title slide, music, and transition)
	• Wrap-Up (5 min)
	  ○ Share: What editing tools do you want to try in your PSA?

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Day 2 – Plan Your PSA

- Warm-Up (10 min)
  - Watch a few sample PSAs or short science commercials
  - Quick discussion: What made them effective?
- Activity (30 min)
  - Students complete a PSA storyboard:
    - Hook (first 5 seconds): Grab the audience's attention
    - Main message (next 15–20 seconds): Explain cellular respiration (inputs → ATP → body system)
    - Call to action or fun fact (last 5–10 seconds)
  - Decide on format: live-action, animated, voice-over, or slides
- Wrap-Up (5 min)
  - Share storyboard ideas in pairs and offer peer feedback

Day 3 – Create the Video

- Warm-Up (5 min)
  - Tip of the Day: How to stay within a 30-second time limit!
- Activity (35 min)
  - Students create their PSA videos using their storyboards:
    - Add visuals or animations for glucose, oxygen, ATP
    - Show how energy is used in one body system
    - Keep it concise—30 seconds max!
- Wrap-Up (5 min)
  - Save drafts; peer partner does a quick check: "Is the message clear and complete?"

Day 4 – Finalize & Share

- Activity (35 min)
  - Final edits: Add voice-over, text overlays, music, and effects
  - Export and title the PSA
- Presentations (10 min)
  - Watch videos as a class or in small groups; give positive

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	feedback using sticky notes or digital comments • Reflection Prompt: "Why is it important for people to understand cellular respiration, even if it happens on a microscopic level?"
Resources	Canva: www.canva.com

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