USING DIGITAL STORYTELLING IN GRADE 8 SCIENCE

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Technology Focus: iPad - Clips App (Free). Clips is an iOS app for making and sharing fun videos with text, effects, graphics and more. Clips will be used in a way that allows students to create a digital story about a cell.

Clips is FREE on any iPad that has an updated iOS.

Level: Basic

Audience: Grade 8 Science Students

Tool Highlights: Clips App (https://www.apple.com/ca/clips/)

Body:

Clips will be used in a way that allows students to create a digital story about a cell. In particular, students will create a clip and write an analogy about all the different parts inside either a plant or an animal cell. This example brainpop video (https://www.brainpop.com/science/cellularlifeandgenetics/cellstructures/) is a story about a factory, and how it can be considered analogous to the organelles and structures of an animal cell.

The cell analogy assignment can be found at this link (https://docs.google.com/document/d/1f0ZRBQQ5cTFEFIpKuw9tqi-pmvLAtrq9H7rzhcgiEvw/edit).

The rubric (including formative, peer, and summative assessment) can be found at this link. (https://docs.google.com/document/d/1nfCK7_3aiKvdTDahbQF9rRnIFyIPzIhtidoPXpyMYHI/edit?usp=sharing)

The example digital story using clips can be found here (https://drive.google.com/file/d/1UHg1Wi9B2RaboT0JxE8YG08VBAdZpPrM/view?usp=sharing). Please note that some of the organelles in the example have been CAPITALIZED to provide clarity.

Focus, Big Ideas

How might we use digital storytelling to create an analogy about a cell?

Ministry Expectations (overall expectations, STSE expectations, specific expectations)

Overall Expectations

1. assess the impact of cell biology on individuals, society, and the environment;

2. investigate functions and processes of plant and animal cells;

3. demonstrate an understanding of the basic structure and function of plant and animal cells and cell processes.

Specific Expectations

2.5 use appropriate science and technology vocabulary, including organelle, diffusion, osmosis, cell theory, selective permeability, membrane, stage, and eyepiece, in oral and written communication

2.6 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., using the conventions of science, make a labelled drawing of a cell; create a slideshow to explain the results of investigations into the processes of osmosis and diffusion)

3.2 identify structures and organelles in cells, including the nucleus, cell membrane, cell wall, chloroplasts, vacuole, mitochondria, and cytoplasm, and explain the basic functions of each (e.g., the nucleus holds all the information needed to make every cell in the body)

3.3 compare the structure and function of plant and animal cells

Key Concepts

When we use one person, place, thing or event to describe another, we are creating analogies. Analogies are a great way to learn new concepts because they help us build mental pictures. They show connections between different things and are used to describe something unfamiliar by using something familiar.

Prior Skill Sets

Students should be familiar with animal and plant cell structures before beginning this assignment.

How to Use Clips

Link for written instructions (https://www.digitaltrends.com/mobile/how-to-use-apple-clips/)

Link for video instructions (https://www.youtube.com/watch?v=N3vueu6Dse4)

Materials and Equipment

Cart of iPads, class set of iPads, or a few iPads (students can share)

Instructional strategies (Brainstorm, provocation, group, individual, hands on activity, other)

See detailed lesson plan (https://docs.google.com/document/d/1EUvRIRn11pia0nqVcf-nnNk6bzGkzRmmPJJZ_X8FxWk/edit?usp=sharing)

Safety (both in the classroom and online - using third party tech tools)

Clips is a built in Apple iOS app for iPad or iPhone, and no personal information, or sign up is required to use (except for what the device initially asks of the user during set-up).

Teaching Suggestions/Hints

A good idea to have students get inspired, and be creative is to show them a couple of different examples of this resource.

Assessment strategy (linked above)

NEXT STEPS/EXTENSIONS/ACCOMMODATIONS/OTHER TOPICS FOR THIS TECH TOOL:

Students can share their digital stories with each other, and with different classes or grades.

They could run workshops for how to use the Clips App for younger (or older!) students in the school.

An extension could be to link all the digital stories together and share them with the community. You could even make each digital story into a QR code and share it with parent(s) at home.

Accommodated students may want to choose less than 10 structures structures in a plant or animal cell to construct their digital story around.

ADDITIONAL RESOURCES:

- Classroom examples (linked above)
- Support Resources: (linked above)
- Related Background Resources: Dillon, Bob. (2014). The Power of Digital Storytelling. Accessed from: https://www.edutopia.org/blog/the-power-of-digital-story-bob-dillon (https://www.edutopia.org/blog/the-power-of-digital-story-bob-dillon)
- Links
  - QR Code Generator (http://qrcode.kaywa.com/)

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(https://www.facebook.com/sharer.php?u=https://connex.stao.ca/classroom-catalyst/using-digital-storytelling-in-grade-8-science&t=Using%20Digital%20Storytelling%20in%20Grade%208%20Science%20|%20STAO%20Connex)
(https://twitter.com/intent/tweet?text=Using%20Digital%20Storytelling%20in%20Grade%208%20Science%20|%20STAO%20Connex&url=https://connex.stao.ca/classroom-catalyst/using-digital-storytelling-in-grade-8-science)
(https://plus.google.com/share?url=https://connex.stao.ca/classroom-catalyst/using-digital-storytelling-in-grade-8-science)

RESOURCES

1. FINAL - STAO Technology Enabled Learning (TEL) with Apple Clips (https://docs.google.com/document/d/1QGpcl-2S_s5hZOU8ojqxXuZTr5CjWwv_fF0JFEnqaJk/edit)
2. Cell Analogy Assignment - Clips App (https://drive.google.com/open)
3. Clips App - Cell Analogy Assignment Rubric (https://drive.google.com/open)
4. ClipsExampleofCellAnalogy (https://drive.google.com/file/d/1UHg1Wi9B2RaboT0JxE8YG08VBAdZpPrM/view)

ELEMENT

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