

# Pixton Practices Handout **Science**

For Use With Pixton PowerUp Webinar

# Best Practice #1: Explain It

# Prep

To prepare for the Explain It activity, select a topic that you can represent in a single panel that gives students a prompt and instructions. Scientific laws, theories, principles, hypotheses, and even natural phenomena make good topics. Think about what background you will need. You can create an original background in Pixton but another great option is to find a story starter. A story starter includes a ready-made comic strip with panels that have useful backgrounds and other content related to a topic. The resource is searchable by topic, so finding one useful for your chosen topic is easy. You can remix the Story Starter and edit the sample comics to create the Explain It instructions panel. You can also share your comic and the story starter with your students so that they can use any of the panels to create their Explain It comic strip. You will also need a character. Choose from general people, an avatar, or notable figures like Albert Einstein and Jane Goodall, and then add a speech bubble.

## Activity

Ask students to join the Pixton class on their device using their Google or Pixton account by displaying the class code. Introduce the comic to your class or share it with them. Ask them to read it and think about how to respond. Have the students create a comic strip based on the Explain It instruction panel you shared.

# PowerUp Variations

Split It! One variation is to make this into a team assignment. This is useful if you don't have time to create an Explain It prompt comic. The two students will collaborate to choose a topic and find an appropriate content pack. One student is responsible for creating the Explain It instruction panel. The other student is assigned the role of creating a comic strip that gives the required explanation to the instruction prompt.

## Differentiation

Adjust Reading Levels: Create multiple versions of the same Explain It comic with varying levels of text complexity to cater to different reading abilities.

Use Visual Supports: Incorporate more visual cues in the panel by adding props or additional elements.

Provide Key Vocabulary: Help students formulate an explanation by providing key vocabulary terms and their definitions.

Include Guiding Questions: Write guiding questions to help students think about the details of the topic.

# Best Practice #2: Pick It

### Prep

To prepare for the Pick It activity, you will need to create or find a comic with several panels. Pixton has lots of ready-made comics that you can search for and Remix to use as your own. You can find these in the story starter resource; alternatively, you can search Pixton's lesson ideas resource, which are also remixable. Search for a story starter by topic or browse by subject area. Once you find one you like, click on the Remix feature and the comic is ready for you to edit. Add or remove panels as needed. One panel must be "false," and students will have to pick the false panel and rewrite it so that it is true. Once you've created the comic strip with a "false" panel, you can publish and share it with your students. This practice works great for science concepts that involve types, stages, cycles, or anything that needs a sequence.

#### Activity

Share the comic and tell students that one panel is incorrect or false. If you want to add more rigor, do not tell them the topic of the comic. For the Pick It practice, the students should pick the panel with incorrect information. Then, they must edit the comic strip to make it true. This activity works well as a knowledge check and students have fun discussing which panel is incorrect.

#### PowerUp Variations

Sort It! If the comic represents steps or a cycle, you can shuffle the panels you prepped so that all the panels are out of order. Ask students to sort the remaining panels in a logical sequence. You can even ask students to do this in a team to add some collaboration.

# Differentiation

Visual Aids: The comic can include labels or key terms to support comprehension for visual learners and ELL students.

Adjust Amount: Reduce the number of panels so that students have less to read and process before they choose.

Scaffolding Support: Provide or allow aids, like a chart of the water cycle, as reference resources.

Reduce Cognitive Load: Limit the amount of text you include in each speech bubble.

# Best Practice #3: Summarize It

## Prep

Choose a complex process or concept in science that you would like students to recap for you. Create or find a comic that demonstrates the science concept. Instead of explanations, edit the speech bubbles and/or captions so that they are placeholders for content that the students will write. Pixton's Al-enabled activity generator can create a list of vocabulary terms that can be given to students. You can even include a vocabulary panel in the comic. Once finished, your assignments will be saved in the My Activities tab.

## Activity

Share the comic strip with placeholder text with the class and ask students to complete the activity you created. Students will demonstrate that they understand the concept in the comic by writing appropriate content into the speech bubbles, replacing your placeholder text and/or caption. You can also require the students to include each given vocabulary term somewhere in the speech bubbles to add more rigor.

# PowerUp Variations

Team It! Pair students into teams. Give each team member a portion of the vocabulary to include. Students must work with their teammates to determine which terms go with which panels and decide what content should replace the placeholder text in the speech bubbles and/or captions. You can also add sequencing for a concept that involves steps, stages, or cycles. To do this, randomize the panels when you prepare the comic and tell the teams that they will also need to re-order the panels.

# Differentiation

Group Composition: Form heterogeneous groups to ensure a mix of abilities and skills, fostering peer support and collaboration

Role Assignments: Assign varying vocabulary to each student. A larger number or more challenging vocabulary can be assigned to one student while their teammate's cognitive load is reduced.

Ongoing Check-Ins: Regularly check in with groups to provide feedback and support, ensuring all students participate and understand the task.

Modify the Process: Direct students to specific supporting resources by adding captions in the panels. Students can refer to the resources as part of the writing process.

# **Associated Research**

- Adbo, K & AAkesson-Nilsson, G. (2022). Moving beyond the language–Visualizing chemical concepts through one's own creative expression. *Frontiers in Education*, 28 December 2022, Sec. STEM Education, Volume 7-2022. https://doi.org/10.3389/feduc.2022.1034140
- Evagorou, M., Erduran, S., & Mäntylä, T. (2015). The role of visual representations in scientific practices: From conceptual understanding and knowledge generation to 'seeing' how science works. *International Journal of STEM Education*, *2*, Article 11. <u>https://doi.org/10.1186/s40594-015-0024-x</u>
- Purnell, K. N. & Solman, R. T. (1991). The influence of technical illustrations on students' comprehension in geography. *Reading Research Quarterly*, *26*(3), 277–299. https://doi.org/10.2307/747764