



Building Future-Ready Skills Through Creative Coding



THIS TRAIL MIX INCLUDES A COMBINATION OF: Computer science, ELA, and technology skills. In this lesson, students explore future-ready skills like perseverance, collaboration, and creativity through coding activities with the Photon robot and the Photon EDU app. Students will engage in creative storytelling by programming their Photon characters to overcome challenges and reflect on the importance of these skills in coding and in life.

DESTINATION

GEAR

- Understanding the meaning and application of 'future-ready skills', especially perseverance, collaboration, and creativity
- Coding and skill development
- Creative writing

- ["Tom Traferatops and Friends Learn about Coding and Future-Ready Skills"](#)
- Photon Robots and [PhotonEDU app](#)
- [Interactive Story Outline](#)
- Optional: Dry-Erase markers, crafting supplies to decorate Photon robots as the main character

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Motivation: Start the lesson by discussing the concept of future-ready skills and their importance in facing challenges and opportunities in the modern world. Read or review the book, ["Tom Traferatops and Friends Learn about Coding and Future-Ready Skills"](#), focusing on the highlighted vocabulary words within the story (perseverance, collaboration, and creativity). Explain how coding can be an excellent tool for developing these skills, as it involves problem-solving, learning from mistakes, and continuous improvement.

Activity: Divide the students into pairs or small groups and provide them with an [interactive story outline](#), Photon robot, and access to the Photon EDU app. [Utilize 'Badge', 'Code', or 'Blocks'](#) in the app, depending on students' level of proficiency. Explain to the students that they will be creating a short, interactive, fill-in-the-blank style story and should view their Photon as the lead character and as someone who demonstrates perseverance. As an optional extension, students may decorate the Photon as a specific character. Students should complete the interactive story about their character facing and overcoming challenges or obstacles. Students must then program the Photon to complete the different approaches they wrote in the story until they succeed. (Example: One of the challenges instructed the students to code a series of moves to confuse an angry creature.) Encourage the students to be creative in their storytelling and to make the character's journey one of perseverance and determination.

Product: After completing their interactive stories, have the students switch projects with another group. Instruct each group to code the story they received and identify areas where the story can be more adaptable or changeable. Allow the groups to discuss with each other and make any desired changes. Gather the students back together and allow each group to share their coded stories. Facilitate a discussion on how the projects illustrate future-ready skills and the importance of perseverance, collaboration, and creativity in coding and life.