Ellipsis Education by Coder Kids, Inc.



Technology Applications Sample Lessons

Introduction

This document draws attention to specific points of interest within the Ellipsis curriculum. Use it as a guide as you explore lessons that align with common Tech Apps and district requirements.

Login Instructions

- URL: http://cdp.ellipsiseducation.com
- Username: TexasReview@ellipsiseducation.com
- Password: TexasReview1
- Once you log in, the links from this document will take you straight to the curriculum.

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Student-Facing Multimedia

- Solution Seekers
 - Grade level: Kindergarten
 - Lesson type: Unplugged
 - Summary: Student-facing visuals under "Materials and Resources"

Engaging Games and Interactive Activities

- Changing Seasons: <u>Planning the Project</u> and <u>Coding the Project</u>
 - Grade level: 2nd
 - Lesson types: Unplugged, Coding
 - Summary: Engage with personal storytelling through code. In the planning stage, students observe a sample project and create their own. The goal is to use existing code and provide attribution for another creator.

• Millipede Game: Part 1 and Part 2

- Grade level: 5th
- Lesson type: Coding
- Summary: Students explore a <u>final file</u> (complete game). Then, they help debug a <u>starter</u> <u>file</u> (link that is part-way done, but has errors in it). Then, they continue to build upon the starter file, adding two new loops, until they have a fully-functioning game.

Opportunities for Students to Collaborate

- Habits of Mind: Collaboration and Diverse Perspectives
 - Grade Level: 2nd
 - Lesson Type: Unplugged
 - Summary:
 - Teachers create a scenario: You and a few friends are attending a festival or large event when you get separated from the adults you came with. You have no cell service in this part of town. What do you do?
 - As a group, students develop a plan to find the adults or be found as quickly as possible. They should consider the unique skills of their group and the items they might have that could help.

Rubrics or Grading Checklists for a Project

- Weather Report, Part 2
 - Grade level: 2nd
 - Lesson type: Coding
 - Example Material: Weather Report Project Criteria

• Flight Simulation, Part 4

- Grade level: 5th
- Lesson type: Coding
- Example Material: Flight Simulation Project Rubric

Assessments and Performance Tasks

- Unit 3 Close: We Are Designers
 - Grade Level: Kindergarten
 - Lesson Type: Unplugged
 - Example Materials:
 - Final Algorithm Video
 - Performance Task Planning and Setup
 - Performance Task Questions
 - Performance Task Rubric

Unit 3 Close: We Are Digital Collaborators

- Grade Level: 3rd
- Lesson Type: Coding
- Example Materials:
 - Coding task set up
 - Performance Task
 - Performance Task Rubric

Progression of a Standard in a Single Unit

- Focus Standard: 3.1.C Develop a plan collaboratively and document a plan that outlines specific steps taken to complete a project.
 - Grade Level: 3rd
 - Example Materials:
 - Digital Collaboration (Digital Citizenship)
 - <u>A Process for Designing</u> (Unplugged)
 - <u>Dancing with Dinosaurs, Part 1</u> (Coding)
 - <u>Dancing with Dinosaurs, Part 2</u> (Coding)
 - <u>3.1.C Formative Assessment</u>
 - <u>We are Software Developers</u> (STEM Career)

Examples of Use, Modify, Create Stages

- Picnic Pop: Part 1 and Part 2
 - Grade Level: 1st
 - Lesson Type: Coding
 - Summary:
 - Use Students view a video of an example project and discuss the potential code that would be used to create it. Then, students go through a code modeling exercise with the teacher to use potential code for the project.

- Modify Students remix code for existing sprites to add functionality to new sprites and elements of their game.
- Create Students give their projects a personal touch with sound effects and other coding blocks.

STEM Fluency Skills

Habits of Mind: Resilience

- Grade Level: 1st
- Lesson Type: Unplugged
- Summary: Students will explore and discuss the challenges that can occur while trying to complete a difficult task. Students will participate in a balancing game that will demonstrate the need for resilience. Then, they will discuss strategies they can apply when they feel frustrated and brainstorm ways of reframing their thinking.

Practical Technology Applications

- Use This, Not That
 - Grade Level: 2nd
 - Lesson Type: Digital Citizenship
 - Summary:
 - Students will first review types of hardware.
 - Then, students will explore the purposes of different types of software applications, like spreadsheets, LMS, email, presentation software, word processors, etc.
 - Finally, students will show their knowledge of software through an interactive class activity.

Differentiation

- Formative assessment can be given orally, one-on-one, or in a small group. Remediation suggestions based on results.
 - Solution Seekers
 - Grade Level: Kindergarten
 - Lesson Type: Unplugged
 - Procedure 3; Step 2
- Student choice incorporated into coding project
 - Changing Seasons: Planning the Project
 - Grade Level: 2nd
 - Lesson Type: Unplugged
 - Procedure 2; Step 5 and Steps 11-13