Calgary Academy | LESSON PLAN

Subject: Digital Literacy & Coding
Date: October 23
Grade: 8

Learning Target

✅ I can use scratch to create a simple interactive animation
✅I can use basic programing concepts such as events, loops and conditions
✅I can demonstrate an understanding of the nature of technology. (ICT Outcome 1)
✅I can demonstrate a basic understanding of the operating skills required in a variety of technologies. (ICT Outcome 6)

Differentiation

- Clarify vocabulary and symbols
  - Pre-teach vocabulary since this can be a relatively unknown subject for students
  - Scratch also uses words that will be unfamiliar to students such as “sprite” and “code blocks”
- Guide information processing and visualization
  - graduated scaffolds that support information processing
  - Visual, oral and written instructions
  - Checklist for students guide information processing
  - Chunking of information
- Vary demands and resources to optimize challenge
  - Degree of difficulty or complexity within which core activities can be completed
- Provide one to one support for students
  - Students who need extra support will work with an aide to help them through the activity

ASSESSMENT

Assess & Activate Prior Knowledge

Prior Knowledge:

- What does the term "digital literacy" mean to you?
- How often do you use digital devices such as computers, smartphones, or tablets in your daily life?

Formative Assessment:

During

- 1, 2, 3 Check in
- After each concept covered in the activity use 1, 2, 3 hand signals to check in with student understanding
- If you do not feel that students are grasping the concept revisit it before moving on

Assessment Evidence

Exit slip

- **One Thing You Learned:** This part of the exit slip can reveal what specific knowledge or skills students have acquired during the lesson. It assesses the extent to which they absorbed the key concepts. For instance, if multiple students mention learning about how to create a sprite in Scratch, it indicates a successful learning outcome.
- **Two Things You Wonder:** This section can help you assess students' critical thinking and curiosity. The questions or wonderings they pose show their engagement with the material and their ability to think critically about the topic. This information can guide future discussions and lessons to address their inquiries.

After • Have students complete a 1, 2, 3 exit slip • 1 thing you learned, 2 things you wonder, 3 things that you still want to learn	• **Three Things You Still Want to Learn**: This part of the exit slip indicates students' ongoing interest and areas where they seek further knowledge. It provides insights into their individual learning needs and what aspects of the subject matter require more exploration or clarification. This information can help you tailor future lessons to meet those needs.

Resources/Materials

- Computers with internet access
- Scratch accounts for students
- Scratch
- Smartboard for demonstration
- Scratch basic videos for expert demonstration

QQ / Opening Activity

- Discuss the importance of digital literacy and coding in the modern world
- Introduce Scratch as a tool for creative coding & animation
- Scratch Basics - Episode 1: Introduction to the Scratch Working Environment
- Scratch demonstration - have the students create a new project and import a sprite
- Discuss the concept of costumes and backdrops
- Introduce the learning objectives of the lesson

Preview • Vocabulary • Importance of digital literacy and digital design in the modern world • Scratch basics	**Vocabulary** • **Sprite:** an image that can be programmed to move, respond to events, and interact with other sprites • **Code:** the process or activity of writing computer programs. • **Command:** instruction to do a particular task • **Code blocks:** your coding tool box • **Program:** group of commands listed together in a specific order

ACTIVE LEARNING

Skill Development

- Develop creative thinking and digital artistry by designing custom sprites and backdrops in Scratch.
- Introduce students to the Scratch paint editor for sprite and backdrop customization.
- Teach students how to import and position images as sprites and backdrops.
- Encourage originality and artistic expression in design choices.
- Foster peer sharing and feedback to enhance collaborative learning and creativity.

Skill Development Activity:

- Instruct students to create their own sprite (e.g., an animated character).
- Show them how to use the paint editor to modify the sprite's appearance.

- Have them create a backdrop for their animation
- Scratch Basics - Episode 2: Deleting a Sprite, Adding a Sprite & Adding a Backdrop

Learning About

- **Digital Creativity:** How to think creatively and express ideas through digital art by designing custom sprites and backdrops.
- **Digital Art Tools**: The basics of using the Scratch paint editor, including tools like brush, eraser, color palette, and text, to modify and create sprites and backdrops.
- **Design Aesthetics:** The importance of making thoughtful and creative design choices to enhance the visual appeal and storytelling in Scratch projects.

Taking Action

- Guide them through the process of adding basic movement to the sprite using Scratch blocks.
- Scratch Basics - Episode 3: Make Your Sprite Say Something!
- Scratch Basics - Episode 5: Make Your Sprite Fly Around
- Scratch Basics - Episode 6: Gliding From One Point to Another
- Have students complete these three basic movements using Scratch blocks
- Once students have played with scratch for a while and have selected and Sprite and a backdrop have them create their own unique animation

Consolidation / Reflection

- Have students share their projects with the class
  - Encourage peer feedback and questions.
- Have the students complete a digital exit slip
  - 1 thing you learned
  - 2 thing you wonder
  - 3 things that you still want to learn

Next Steps

- Assign students to create a more complex project that incorporates multiple sprites and interactions.
- Provide resources and tutorials for them to explore further.
  - Scratch Basics Episode 9: Coding Costume Changes
  - Scratch Basics Episode 10: Coding Backdrop Changes
  - Loops (in Scratch)
  - Loops involving 'if-statements' (in Scratch)