Variable Stories Lesson Kit (Gr. 4-6)

All classes are running differently right now. Our team is available to collaborate with you to adapt this for your distance learning needs. Please do not hesitate to email us at techup@scienceworld.ca for any support you need with this kit.

Summary:

This kit contains resources for both synchronous and asynchronous lessons. There is a teacher guide to walk you through leading the challenges over a series of 3 sessions of approximately 30-45 minutes as well as a set of student challenge handouts for students to work through on their own as assigned according to your own timeline and discretion. There is also an optional extension activity if you would like to build further on the coding concepts explored in these lessons.

In these activities, students will explore how parts of speech can be used to strengthen their understanding of variables. They will work towards writing their own mad lib stories before using Scratch to code a mad lib story generator.

Kit Overview:

- Curriculum links
- Activity timeline suggestions
- Teacher lesson guide
- Student challenge handouts

Required Technology and Materials:

For teachers:

- Computer with internet connection and ability to send students a document
- **For synchronous activity only:** ability to share your screen and speak to the students
  - This can be done with Teams, Zoom, etc.

- o https://jitsi.org/jitsi-meet/ is a free online video conferencing tool that requires no accounts to use

For students:

- Computer or tablet with internet connection
- Paper and pen/pencils
- Ability to print helpful but not necessary

Note: Upon request, the Tech-Up facilitator can help you find which platform works best for you.

Synchronous Timeline:

Intro and review concepts	10 minutes
Challenge 1 – Introducing variables	10 minutes
Challenge 2 – Doing a mad lib	10 minutes
Challenge 3 – Using variables in Scratch	30 minutes
Challenge 4 – Making a mad lib	30 minutes
Optional extension 1 – Using lists in Scratch Extending into Python	30-45 minutes

Asynchronous Timeline:

Challenge 1 – Review parts of speech, brainstorming words, variables in scratch (offline and online)	30 minutes
Challenge 2 – Planning your mad lib (offline)	30 minutes
Challenge 3 – Making a mad lib in Scratch (online)	30 minutes
Optional extension 1 – Using lists in Scratch Extending into Python	30-45 minutes

Curriculum links:

ADST

Ideating

- Generate potential ideas and add to others' ideas

Prototyping

- Outline a general plan, identifying tools and materials

Sharing

- Decide on how and with whom to share their product
- Demonstrate their product and describe their process

Applied Technologies

- Use familiar tools and technologies to extend their capabilities when completing a task
- Choose appropriate technologies to use for specific tasks
- Demonstrate a willingness to learn new technologies as needed

English Language Arts

Comprehend and connect (reading, listening, viewing)

- Identify how differences in context, perspectives, and voice influence meaning in texts
- Understand how literary elements, techniques, and devices enhance and shape meaning

Create and communicate (writing, speaking, representing)

- Use and experiment with oral storytelling processes
- Transform ideas and information to create original texts

Core Competencies

- Communicating
    - Answering the reflection questions to explain their thinking
    - Communicating their ideas and explaining their code with their family, teacher, and peers
- Creative thinking
    - Adapting their code to perform the same task in a different way

- o Extending their code to go beyond the main challenge – seeing opportunities to build on what they've created and how it could be used to facilitate different goals
- Critical and reflective thinking
  - o Debugging their code
  - o Analyzing their task and determining how to accomplish it using the code blocks they're provided
- Personal awareness and responsibility
  - o Persevering through difficult coding tasks and working towards finding a solution
  - o If assigned as a self-paced lesson, managing your time appropriately and creating a plan for finishing the assignment
  - o Developing and utilizing strategies to manage frustrating situations when coding
  - o Seeking feedback