Session Overview

- How it all began
- Planning it out
- Show and Tell
Background

Previously:

- School Library Tech
  - Hastings & Prince Edward DSB
- Rotated Between Schools
  - Three K to 8 Schools
  - One 7 to 12 School

Currently:

- Program & Outreach Coordinator
  - Lennox & Addington Libraries
- Wider Range of Programs
  - Adults, Seniors, Kids
  - Special Events
- Still Do Class Visits
  - #FreeFieldTrip
Library Tech

Self-Taught Coder

Techie

Recreation Leadership

Maker Minded
The Evolution

School Board Initiative

- Tech Kits
- Catalogued and housed in each school’s Learning Commons
- Over $1000 in coding and robotics tools
- Aims to develop Computational Thinkers
New Toys!

Teachers will be STOKED!
Teachers be like

WHAT’CHU TALKIN’ ‘BOUT, WILLIS?
Don't tell them.
Show them!
The Idea:

Computational Thinking + Computer Science Vocabulary = S.T.E.M.-ing Up Storytime
Program Outline

Target Audience:
- Kindergarten to Grade 4

Books:
- 1-2 Picture Books (Usually 1)

Centres/Activity:
- 1-4 to extend book theme/idea

Time:
- 30 minutes
Side Note: Picking Themes

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**Standard:**
- Seasons/Holidays
- Forest of Reading
- Curriculum

**Challenging:**
- National Days
- Kid Chosen
- Awareness Days
  - United Nations
  - Canada
Figuring Out Activities

Robots, Lego, Coding, Circuits, etc.

How can I use them to extend the theme?
The Computational Thinkers

**Concepts**

- **Logic**: Predicting & analysing
- **Evaluation**: Making judgements
- **Algorithms**: Making steps & rules
- **Patterns**: Spotting & using similarities
- **Decomposition**: Breaking down into parts
- **Abstraction**: Removing unnecessary detail

**Approaches**

- **Tinkering**: Changing things to see what happens
- **Creating**: Designing & making
- **Debugging**: Finding & fixing errors
- **Persevering**: Keeping going
- **Collaborating**: Working together
Theme:
- Gardening
Activity:
- Code Dash to collect the seeds
- Code Dash to plant the seeds in the pot
- Do a rain dance to make the flower grow

Sequencing, Algorithms, Coding, Collaboration, Debugging, Perseverance
Theme:
- Life Cycles
- Needs of living things
Activity:

- Pick frog, chicken, or plant
- Draw a costume for your Ozobot
- Draw lines to connect the needs of your chosen living thing

Abstraction, Patterns, Evaluation, Collaboration, Debugging, Creativity
Theme:
- Construction
- Design Thinking
- Planning
Activity:

- Input the arrows left by Ladybug Robot to figure out the specifications for the fort they want you to build
- Use Lego to build a fort that satisfies the specifications

Logic, Algorithms, Evaluation, Collaboration, Debugging, Decomposition, Creativity
Theme:
- Apples
- Fall
- Applesauce
Activity:
- Arrange the card in the correct sequence for making applesauce
- Draw lines to connect the pictures for the Ozobot to make applesauce in the correct sequence

Logic, Algorithms, Collaboration, Debugging, Evaluation, Persevering
Theme:
- Hats
- Lost and Found
Activity:
- Without touching Dash, build a hat out of Lego you think will fit
- Place the hats on the coding grid
- Work with your team to code Dash to the hat you think will fit

Creativity, Algorithms, Debugging, Evaluation, Persevering, Collaboration
Theme:

- Forgetfulness
Activity:
- Follow the directions to make a forget-me-not notebook

Creativity, Algorithms, Debugging, Evaluation, Persevering, Patterns

How-to Make a Forget-Me-Not Notebook

1. Select a cover from the grey bin
2. Fold the cover in half by matching the short ends
3. If your cover is...
   1. Green -> Select 4 white paper sheets
   2. Purple -> Select 6 white paper sheets
   3. Blue -> Select 4 white paper sheets
   4. Red -> Select 3 white paper sheets
4. Arrange your white paper sheets blank side up
5. Line up the white paper sheets in the cover fold
6. If your cover is...
   1. Green or Purple -> staple the crease 2 times
   2. Blue or Red -> staple the crease 3 times
7. Put your name on the back of the front cover
8. Decorate how you like
Theme:
- Uncommon Musical Instrument Day
Activity:
- Make an uncommon instrument with your team using conductive materials
- Cooperatively play your instrument

Tinkering, Debugging, Evaluation, Patterns, Collaboration
Theme:
- Nutcracker
- Dance
Activity:
- Create a dance based on colour triggers
- Collaborate to decide on dance move for each colour
- Play music, shuffle cards and do move according to colour on the drawn card

Logic, Algorithms, Collaboration, Debugging, Creativity
Theme:
- Does It Fit
Activities:
- Sort the mixed up puzzle pieces
- Lego Tangrams

Tinkering, Debugging, Evaluation, Logic, Persevering
More Ideas

Unplugged:
- Code.org
- CS Unplugged
- Hello Ruby

Robotics:
- Wonder Workshop
- Dash Challenges
- Ozobot Activities
- Sphero Activities
thank you

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