The Secret Path Project

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GORD DOWNIE & WENJACK CHANIE FUND

TakingITGlobal
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L★NX

RCDSB
Renfrew County
District School Board
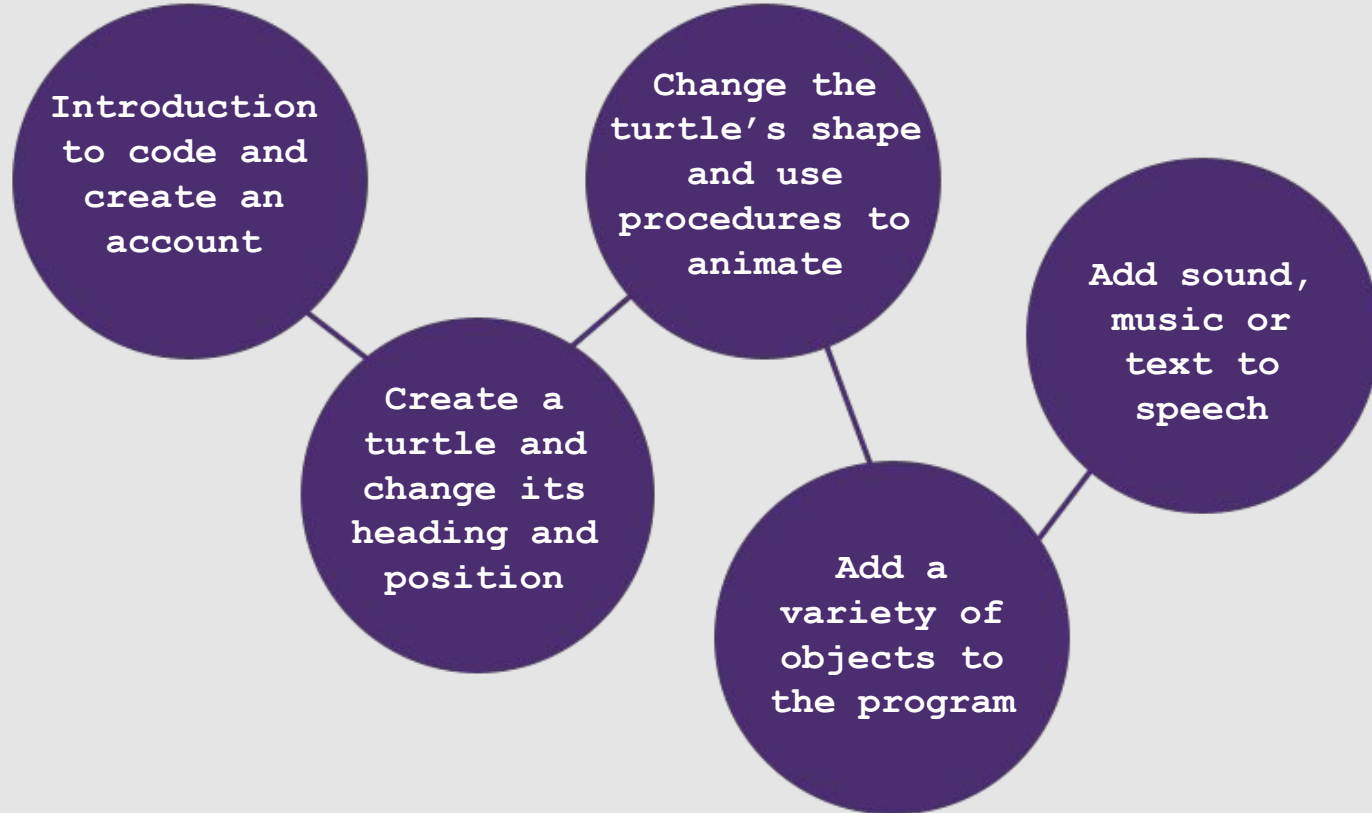INSPIRE. EMPOWER. ACHIEVE.

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The Secret Path Project

Learn coding concepts while learning about Chanie's journey and creating a message of ReconcilACTION.

LYNX

Learning Goals

Students will learn these coding concepts.

- Introduction to code and create an account
- Create a turtle and change its heading and position
- Change the turtle's shape and use procedures to animate
- Add a variety of objects to the program
- Add sound, music or text to speech

Introduction to Text-based Coding

What is LYNX and learning the environment.

What is LYNX?

- **LYNX is the natural next step after you have used block-based coding programs like Scratch.**

- **LYNX uses *words* to code. They are called PRIMITIVES. You can think of them as COMMANDS the computer understands. There are approx. 200 Primitives that LYNX understands. You will learn some of them for this project.**

Layout

Share

Save

Add Objects

Files

Procedures

Clipart

Project Tree

Settings

My Projects
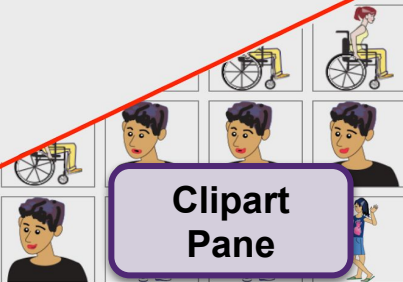
Commands

Help

My project - page1

Procedures

```
1    ; This is an example of a procedure. Type the
         word DrawSquare in the Command Centre (the
         area below the white Work Area)
2
3    to DrawSquare
4    pendown
5    repeat 4 [
6       forward 100
7       right 90
8    ]
9    end
10
```

Procedure Pane

Clipart Pane

Name your Project

Turtle

Work Area (Page)

Command Centre

? HELP!

Getting Started

Get a free LYNX Account and work with the Template

Join Your Class Coding Club and Register for your own account

Accept the Link that your teacher sent to you or shared with you. You will become a member of that Coding Club.

In the top right corner, *Register* with your third party provider and get your own free Lynx account.

The invitation link from your teacher must be accepted within 30 days!

Login/Register

LOGIN/REGISTER

If you sign in for the first time, you agree to our Terms, Privacy Policy.

Google   Microsoft   facebook

SIGN IN WITH GOOGLE   SIGN IN WITH MICROSOFT   SIGN IN WITH FACEBOOK

**Accounts are free for Canadians thanks to a subsidy by the Government of Canada.**

Start in the Right Place!

At the top, click *All Projects*. *Open the Secret Path Project Template* project from your Secret Path Project Club. *It will appear in Player mode. To modify it, click on Edit.*

Name *the project something personal, e.g.* Secret Path by Your Name.

Save *the project right away!*
Click the save icon
There is NO autosave so remember to Save often.

EDIT

Secret Path - name

Procedures
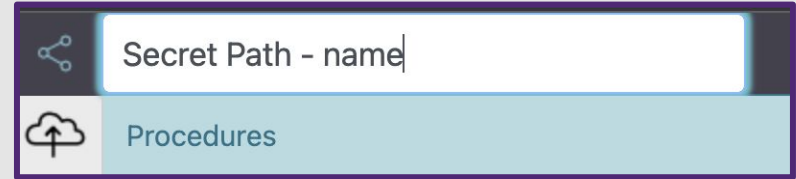
Join your Secret Path Project Club, Open and Rename the Template: Video

Learning about Chanie

Who was Chanie and why is the story important?

Who was Chanie?

On page 1, Click the **button** and an animation will begin, music will play and a short explanation will appear.

Click to start

Chanie Wenjack was born on January 19, 1954, on the Marten Falls First Nation.

Changing the Appearance and Altering Position

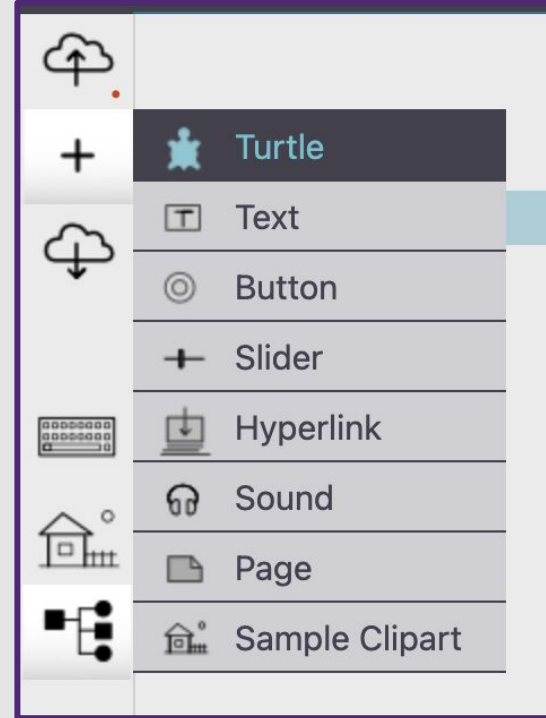Adding a turtle, moving a turtle, setheading and setpos.

Add a Turtle

Need to add a *Turtle* to the Page? On the left side, click the **+** sign and choose *Turtle*.

Important Tip:

Do you see a red dot below the Cloud icon?

That means you have not saved recently. Save now by clicking on the Arrow up to the Cloud.

There is NO autosave.

Move a Turtle

In the Command Centre type fd 100 and hit enter. What do you think the fd primitive does? What does 100 represent?
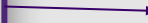
```
↺  fd 100
◉
```

Type right 90 into the Command Centre. What does the rt primitive do? What does 90 represent?

```
↺  fd 100
   rt 90
◉
```

Type glide 500 1 and glide 500 2 into the Command Centre. What does the 500 represent? What does changing the 1 to a 5 do?

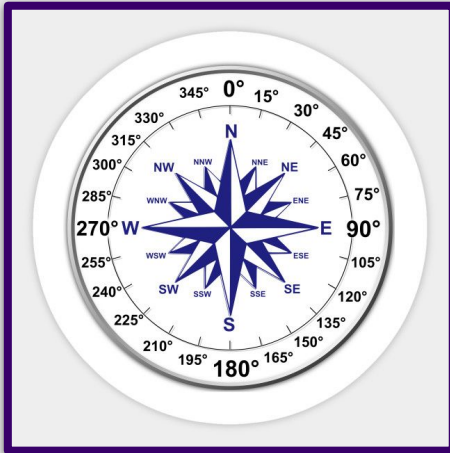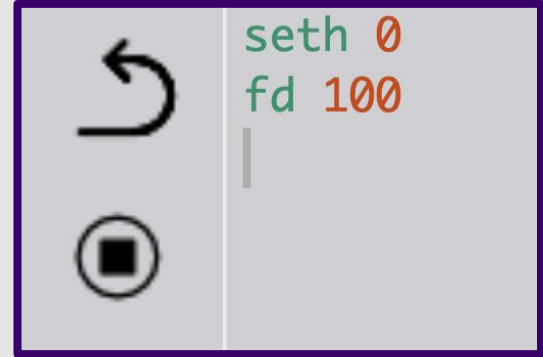```
↺ glide 500 1
   glide 500 5
◉
```

*Try the following primitives and note what they do:*
*fd 100, bk 100,  rt 90, lt 90, rt 45, and home*

# Set Heading

Try the following primitives along with **fd 100** and see what they do:

**seth 0, seth 90, seth 180, and seth 270.**

**seth** is short for **setheading.** Don't put a space between set & heading.

```
seth 0
fd 100
```

Try to use the setheading and forward primitives to move your turtle in the shape of square.

By entering the command, **PD** (pen down) the turtle will draw a line and you will see the turtle draw a square.

Set Position (setpos)

In the Command Centre set the following positions for your turtle and note where your turtle goes for each. Use the Square Brackets beside the letter P.
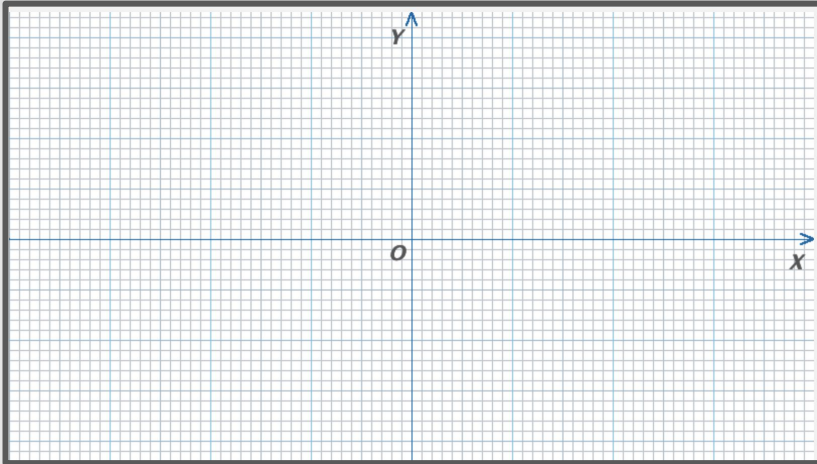
```
setpos [-200 200]
setpos [200 200]
setpos [-200 -200]
setpos [200 -200]
```

Move the Turtle around to determine how large the work area is. What did you find? What is the centre of the work area?

Changing the Turtle's Size and Shape

Change the size of the turtle and choose a new shape using clipart

Set Size

In the Command Centre type **setsize 20** and hit enter. How small can you make your turtle?

Type **setsize 100** into the Command Centre. How large can you make your turtle?

Use the **repeat** primitive to make the turtle do the instructions inside the brackets multiple times. In this case, switch between size 20 and size 100 **five** times. **Wait 5** tells the turtle to wait half a second before changing sizes. Try different numbers and have fun.

Try to have your turtle gradually grow from smallest to largest.
Note: all turtles start with a default size of 40.

```
setsize 20
```

```
setsize 100
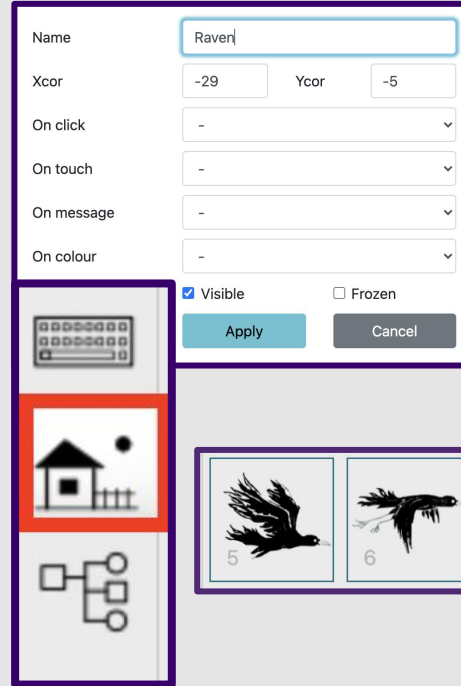```

```
repeat 5 [setsize 20 wait 5 setsize 100 wait 5]
```

20

Set Shape

Right-click on the turtle and name it *Raven*. Turtles MUST have a 1 word name.

Click the Clipart icon in the left menu tab to see the sample clipart. Notice number 5 is the Raven.

In the Command Centre type *setshape 5*. This will change the turtle to the Raven. Then type *setshape 6*.

Finally, use the *setsize* command you previously learned to set the size of the Raven to a more suitable size.


```
setshape 5
setshape 6
```
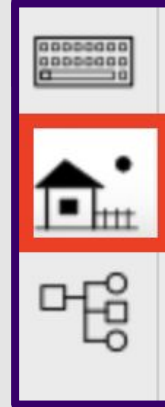
What is a Procedure and how to use them

Put your new Procedure in a Button

LⓘNX

Understanding Procedures

A *procedure* is a group of instructions that you give a name to. This new procedure is added to Lynx's primitives, but only in the project you are currently working on. Basically, you are teaching Lynx a <u>new</u> command for <u>this</u> specific project.

Go to the **Procedures Pane.**

Create a Procedure called **fly.** The 1 word name CANNOT be a LYNX command that already exists.

Important Tips:
- All procedures MUST start with **to**, then a space, then 1 word.
- All procedures MUST finish with the word **end** on a line by itself.

Use *setshape* and *wait* to create an animation for the Raven Type **fly** to the **Command Centre** to run your **Procedure!**

```
Procedures

1 ▾ to fly
2    setshape 5
3    wait 5
4    setshape 6
5    wait 5
6    setshape 5
7    wait 5
8    setshape 6
9    wait 5
10   setshape 5
11   wait 5
12   setshape 6
13   wait 5
14   setshape 5
15   wait 5
16   setshape 6
17   wait 5
18   setshape 5
19   wait 5
20   setshape 6
21   wait 5
22   end
```

fly

Repeat

*Identify the core of the pattern used for your **fly** procedure.*

```
Procedures

 1 ▾ to fly
 2    setshape 5
 3    wait 5
 4    setshape 6
 5    wait 5
 6    setshape 5
 7    wait 5
 8    setshape 6
 9    wait 5
10    setshape 5
11    wait 5
12    setshape 6
13    wait 5
14    setshape 5
15    wait 5
16    setshape 6
17    wait 5
18    setshape 5
19    wait 5
20    setshape 6
21    wait 5
22    end
```

*Use the **repeat** primitive to shorten your fly procedure. Note that the repeated primitives must be placed in square brackets (beside the letter P on your computer).*

```
Procedures                              ▶

 1 ▾ to fly
 2    repeat 10 [setshape 5 wait
         5 setshape 6 wait 5]
 3    end
```
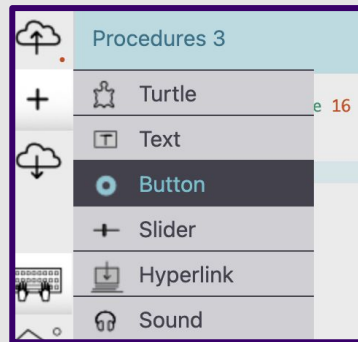
Add a Button to the FLY Procedure

Click the + and add a _Button_

Right-click the button. Change the Label to _Fly Raven_ and select the _fly_ procedure from the On Click dropdown. Click Apply

Click your button to see your animation

Procedures 3
- Turtle
- Text
- Button
- Slider
- Hyperlink
- Sound

**Important Tips**:
- *Buttons can be dragged to different spots on your page.*
- *Buttons can be resized by dragging the bottom right corner.*
- *The Label is plain English-it is not code.*

Name	button4
Label	Fly Raven
On click	fly

☑ Visible   ☐ Frozen

[Apply]   [Cancel]

Try to have your raven fly across the screen while it flaps its wings. Use cards 16 to 18 for help!

PAGES and BACKGROUNDS

Add a Page, put a Background on it & navigate between Pages

LYNX

Add Another Page

Click the + sign and select *Page*.
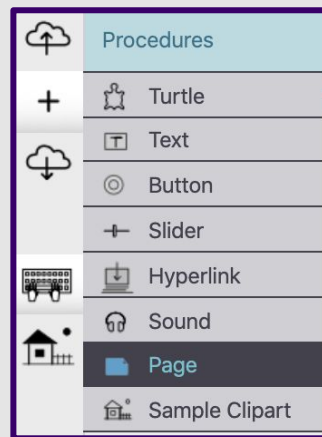**A new page with a plain white background appears.**

You will need a *Turtle* on the Page. If one is not there, click the + sign and select *Turtle*.

Important Tips:
Pages are added in this order: Page1, Page2, Page3 etc. You can rename a page but you must use a 1 word name with no spaces.
*You can **remove** a page with the command **remove 'page2'** assuming **page2** is the name of the page.*
*You can also go to the **Project Tree**. Click on the page you want removed and click **Delete***

Procedures
- Turtle
- Text
- Button
- Slider
- Hyperlink
- Sound
- Page
- Sample Clipart

Name: page2

Apply   Cancel

Creating a Background

*Open the **Clipart Pane** and find an image you like. Remember the **shape number** in the bottom left.*

Method 2: You can also click on the image you like in the Clipart Pane. You will see a white glove. Now click directly on the turtle. Click & Click. Do NOT click & drag

*In the Command Centre type **setshape 22** (or the clipart number of your choice). The black turtle has changed shape.*

IMPORTANT TIP:
*If you don't like your background after stamping, click **Undo** twice.*

*Use **setsize** to make it bigger or smaller if needed.*

*In the Command Centre type **stamp** to permanently stamp the image on the background. IMPORTANT: To get the turtle shape back again __after__ stamping, type **setshape 0** in the Command Centre.*

Page Navigation

Click the _forward_ and _back_ arrows to the right of the project name to navigate between pages.

Secret Path Project - page1

You can also use the command center to navigate between pages. Try typing _page1_ in the Command Centre.

page1

**Important Tip:**
Remember, procedures cannot be named after Lynx commands.

Try writing a procedure to change the page. Type _to gopage 2_ in the procedure pane.

```
1  to gopage2
2   page2
3   end
```

Page Navigation with a Button

Click the **+** and choose *Button.*

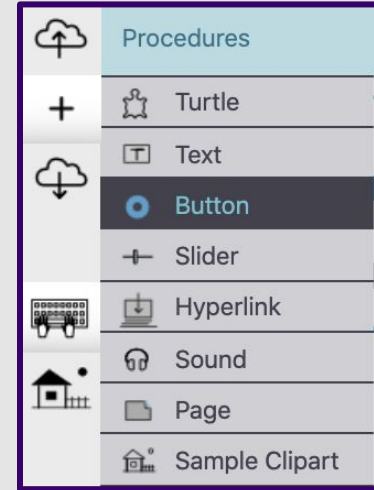*Right-click* the Button.

In the Label field, type something meaningful such as *Go to Page 2.*

Click the *On click* drop down menu.

Choose the *procedure* you made on the previous slide to change pages *gopage2.*

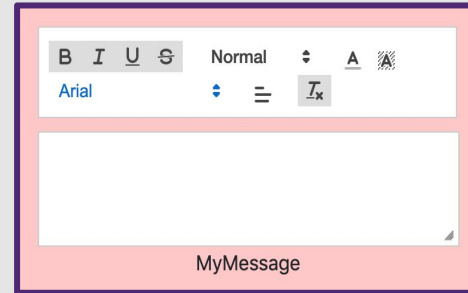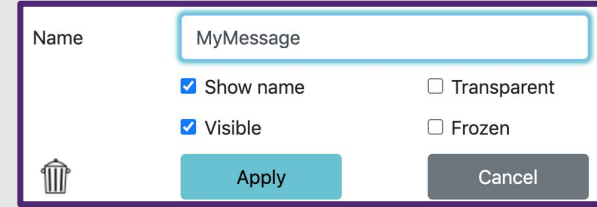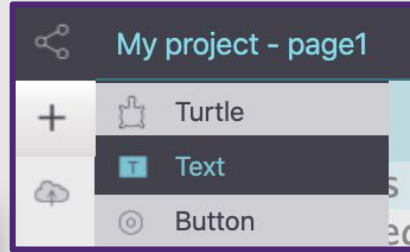Click *Apply.*

Adding Text Boxes

And managing Text Boxes

Creating Text Boxes

Click the + sign and select Text.

Right-click on the text box, a dialog box appears.

Type the name: MyMessage. Text boxes must have 1 word names.

Click Apply.

My project - page1

Turtle
Text
Button

Name | MyMessage

☑ Show name   ☐ Transparent
☑ Visible   ☐ Frozen

Apply   Cancel

B I U S   Normal   A A
Arial   ≡ Iₓ

MyMessage

Important Tip:
To **Move** the text box: Grab it by the name and drag it.
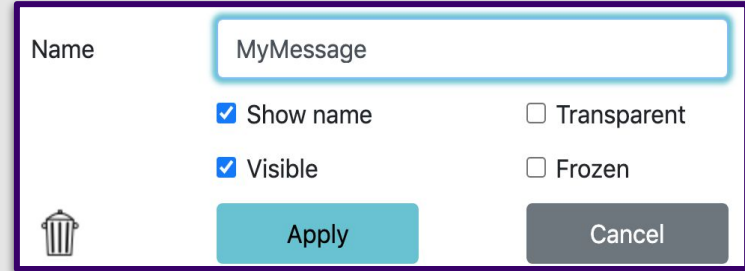**Resize it:** Drag on the small triangle in lower right that appears when you hover over it.
Format: Click inside the text box—or select text—and use the formatting tools that will appear near the text box.

Managing Text Boxes

Name	MyMessage

☑ Show name   ☐ Transparent
☑ Visible   ☐ Frozen

🗑️   [Apply]   [Cancel]

Right-click on the Text Box.

Check the Transparent box.

Click Apply.

Important Tips:
*Making the text box **transparent** removes the border and makes it look cleaner. If you want the border back just right-click on any word inside the text box.*

*If you uncheck **visible**, the text box is now **invisible**. No worries! Type this in the Command Centre: **showtext**. The Text Box reappears. If you have more than one text box, you will have to call it by its name like this: **MyMessage, showtext***

***Hidetext** does the opposite.*

***Delete** a text box by clicking the trash can.*

ReconcilACTION

With the coding skills you learned, you will create a message of ReconcilAction to inspire others to #DoSomething.

L♦NX

Learning Goals

Students will use their learned coding skills and understanding of Chanie to create a message of reconcilACTION.

Using the procedures you learned and the clipart in the template, create a message of reconcilaction to share with others. Be sure to include information about the Downie Wenjack Fund.

Tip: Screen record your animation to share on social media or school websites.

Extension - Can you add your own clipart to create unique backgrounds and animations?

EXTENSIONS

Going further!

Choose a different Gord Downie song

Go to **Page2_for_Music**. *Here you will find all the Gord Downie songs from the* **Secret Path** *album. To choose a different song on Page1, on Line 21 of the Template replace* **SecretPath** *with the name of the song you like by* **copying** *and* **pasting** *the name of the song. An easy way to copy a Sound name is to right-click on the Sound icon. The Dialog Box will open and then copy the name.*

On **Page2_for_Music**, *there are also 2 recorded phrases and their Ojibwe translation. Try them, click the Sound Icon or type the name of the phrase in the* **Command Centre***.*

If you like, include **launch [PhraseName]** *in a procedure.*

Important Tip:
The Project Tree is on the left side directly below the Clipart (house) icon. It shows all the pages in your project and all the objects on each Page. Objects are turtles, buttons, sounds, text boxes etc.

- page1
  - Chanie
  - SecretPath
  - Story
  - Click to start
- page2_for_music
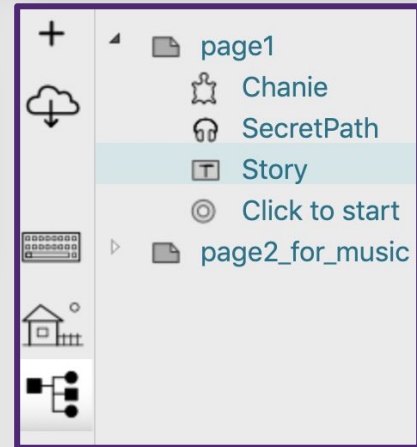
ADD Your own Voice *or* Import a WAV or MP3 file

Record your voice using a recording app.
Name your .wav or mp3 file with a simple 1-word name.

Click the + and choose Sound.

Select the audio file from your computer.
Click Create.

To try it out, click the Sound icon or type the name of your sound in the Command Centre.

+	☆ Turtle
	T Text
☁	◎ Button
	+ Slider
⌨	📥 Hyperlink
	🎧 Sound
🏠	
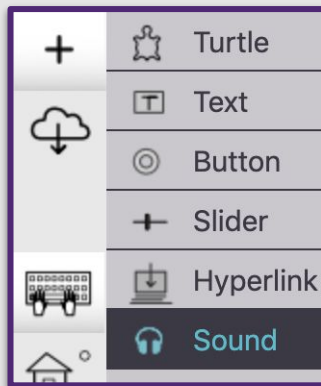
Important Tip:
Hide your sound icon by right-clicking it and unchecking Visible.
Show it again: On the left side, below the house icon, click on the Project Tree icon. Find the sound on the Page where it is used. Click on it and press Edit.
In the dialog that opens, check Visible.

Include launch [SoundName] in a procedure. Try it out and see if you want more sounds!

Text to Speech

Type *say MyMessage* in the Command Centre and press *Enter*. This reads the contents of the Text Box named *MyMessage*. On card 32, you created this TextBox. Make sure there are words in it !

Important Tip:
If you see a red dot below the Save Icon. it is time to save. Click on Arrow up-to-the-cloud.

Can you create a procedure that includes *say MyMessage*? Add a *button* to *launch* your procedure.

Adding Clipart

IMPORTANT - Try to find **PNG** images that have a **transparent** background.

Copy and Paste

TWO WAYS

Upload an Image

*Press Ctrl-C to **Copy** the photo on your computer that you want to add.*

*Click on the **House** icon to open the Clipart Pane.*

*Click on the **House** icon to open the Clipart Pane.*

*Click on an empty box to reveal a **+** sign.*

*Click on an empty box to reveal a **+** sign.*

Use the dialog box to locate a clipart file on your computer.

***Paste**. Press Command-V on a Mac, or Ctrl-V on other computers.*

*Click the **Create** button.*

Share your Project

Click the Share icon.

Click Create.

A URL will be generated here.

Click on Copy Link and send it to friends.

Click on Project Properties and add a Preview Image to make your project easier to find.

Share this project...

Sharing Options   Project Properties

Link Sharing is OFF. Create a link to share.

URL   To create a link to share, click Create

Copy link   E-mail   Twitter   Facebook

Embed on   To see the code, click Create
your site

Copy

Will you allow others to modify your App? If Yes, uncheck Private. Don't worry, your original will remain!
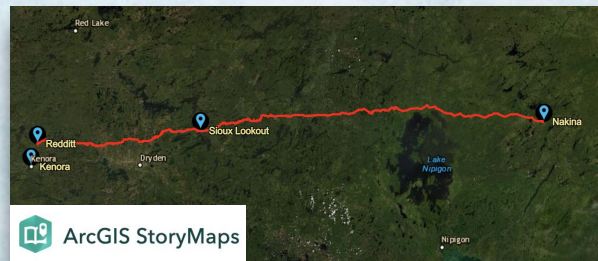
DESCRIPTIONS FOR EACH LOCATION

You can find more information about Chanie Wenjack in many places. Here are just 2 suggestions:
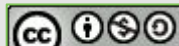

www.downiewenjack.ca

Mapping the Secret Path

CODE to LEARN

Credits

Principal Writers: *Michael Quinn, Lisa Anne Floyd*
Contributors: *Elena Yakovleva, Mike Fitzmaurice, Oliver Gallery, Mike Brohart. Mrs. Phelan's Class Mrs. Lemoine's Class.*

Partners

LCSI — fair chance learning *what every student deserves* — CISCO — 21 — Deloitte.

A program of **TakingITGlobal** INSPIRE INFORM INVOLVE — Connected North

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