

GOING PAPERLESS WITH GOOGLE CLASSROOM AND USING GOOGLE SLIDES AS SCIENCE JOURNALS

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Technology Focus: In this Classroom catalyst, you will be learning how to utilize Google Suite tools: Google Slides to create a digital science journal for Primary students and Google Classroom for submissions of student work.

Description: Google Classroom is a blended learning platform for schools to facilitate the creation and distribution of lessons, resources, and assignments in a paperless way. Educators can easily access and manage student work within Google Classroom. Google Slides is a presentation application that allows both educators and students to present information in a visual way.

Level: To utilize this technology, a basic to intermediate level of technical knowledge is required. All students and educators using these tools will require a GSuite for Education account.

***You will need to check with your school district for GSuite for Education account login information**

Audience: This catalyst is targeted towards Primary Grades; however, Google Classroom and Google Slides can be utilized in Junior, Intermediate, Secondary Science Classrooms and it is applicable to all disciplines of Science and Technology.

Tool Highlights: This catalyst will highlight the use of Google Slides as Science journals with Primary students and submitting completed journals in Google Classroom using iPads.

Please note that this catalyst highlights the use of iPads. Other devices such as chromebooks, and laptops can also be used. Steps outlined and the process involved using other devices will differ from what is outlined in this catalyst.

Introduction:

Students will capture images of living and non-living objects during a class nature walk in the schoolyard or community using iPads. Teachers will have to pair students or place them in groups of 2 or 3, depending on how many iPads are available. When students return to the classroom, they will open the Google Classroom App to access their copy of the 'Living and Non-Living Things Nature Walk' Google Slide deck. Each student will import 2 images into their personal copy of the slide deck. One image should be an example of a living thing, the other should be an example of a non-living thing. Students will then name the object and explain how they know if the object is living or non-living.

Prior Skill Set:

Students should be able to log into their own GSuite for Education Accounts, open the GSuite for Education tools (Classroom and Slides) and be able to take photographs using the iPads independently.

Grade 1 - Needs and Characteristics of Living Things/ Kindergarten

Overall Expectations:

2. investigate needs and characteristics of plants and animals, including humans;
3. demonstrate an understanding of the basic needs and characteristics of plants and animals, including humans.

Specific Expectations:

2.2 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources

2.6 use appropriate science and technology vocabulary, including investigation, explore, needs, space, and food, in oral and written communication

Steps (Inquiry on Living and Non-Living Things):

1. Class discussion on living and non-living things to assess for learning: What are some characteristics of living things? What are some characteristics of non-living things? What differences between living and non-living things?
2. Teacher records student generated ideas in a chart on an interactive whiteboard (or chart paper)
3. Show a variety images of living and non-living things on the IWB/projector. Have the students classify each example as living or non-living and record the name of the object or organism under each image on the IWB. Students can come up to the board and classify the item as living or non-living. (Non-tech option: move pictures to appropriate column on a chart).
4. Teacher can guide discussion by making observations (i.e. the water is moving, I wonder if it is living?) and/or encourage students to ask questions and make their own observations to generate further discussion (i.e. Is a leaf living when it is on a tree? Is a leaf living if it is on the ground? Is a leaf living if the wind blows it around in the school yard?)
5. Record any newly discovered characteristics to the student generated ideas chart
6. Students reflect on their findings: What characteristics did all of the living examined by the students have in common? Are there any characteristics that non-living things have that are the same as in living things? Examples? How do living things differ from the non-living things?
7. Have students consider: Do all living things move? Why do they move?
 1. <https://www.youtube.com/watch?v=X1dGMGS-mv4> (<https://www.youtube.com/watch?v=X1dGMGS-mv4>)
8. Ask students if all things that move are living to assess their understanding. Have students explain their thoughts and opinions using some of the findings generated in the chart. Ask what kinds of non-living things move? Why are these things considered non-living? How does the movement of a non-living thing differ from a living thing?
9. Prepare students for their nature walk to find real samples of living and non-living things

Teacher Steps

1. Set up iPads: Download all required apps onto all iPads:

Drive (<https://itunes.apple.com/ca/app/google-drive-secure-online-file-storage/id507874739?mt=8>)

Slides (<https://itunes.apple.com/ca/app/google-slides/id879478102?mt=8>)

Classroom (<https://itunes.apple.com/ca/app/google-classroom/id924620788?mt=8>)

Visual Guide: For a visual step-by-step guide for the following (create a science journal using Google Slides and student assignment instructions, Steps 2 & 5), please view:

<https://docs.google.com/presentation/d/1i-c3vrDsst-CQ2lk8vaH0UKhiP7tHpMd1LAqWPyik38/preview>
(<https://docs.google.com/presentation/d/1i-c3vrDsst-CQ2lk8vaH0UKhiP7tHpMd1LAqWPyik38/preview>)

Video: https://www.youtube.com/edit?o=U&video_id=qIVvc7byimA (<https://www.youtube.com/watch?v=qIVvc7byimA&feature=youtu.be>)

2. Create Science Journal Using Google Slides

Open the Slides app: Ensure that you are logged into your teacher Google account. If you are not, click on the hamburger menu ≡ (top left corner), select 'Manage Accounts' and + 'Add Account'. Enter your teacher GSuite for Education login information.

Create a New Slide: Click on the + icon in the bottom right hand corner of your slides landing page. Select 'New Presentation'

Give the New Slide a Title: Enter the Title for your presentation in the 'untitled presentation' section. Suggested title: Living and Non-Living Things Nature Walk and enter 'Name' in the subtitle.

Add 2 Additional Slides: Click on the + page sign in the bottom left hand corner. Select the "Title and Two Column" Slide. Repeat.

Your Slide is ready to post in Google Classroom for Students.

Visual Guide: For a visual step-by-step guide for the following (setting up Google Classroom and Posting Assignments, Steps 3 & 4), please view:

<https://docs.google.com/presentation/d/1XILRVk315Club-gWisKvsEshgV1Li37rQztm6V73DNE/preview>
(<https://docs.google.com/presentation/d/1XILRVk315Club-gWisKvsEshgV1Li37rQztm6V73DNE/preview>)

Video: <https://youtu.be/KVnpLepV0A0> (<https://youtu.be/KVnpLepV0A0>)

Set up Google Classroom

Open the Classroom app: Ensure that you are logged into into teacher Google account. If you are not, click on the hamburger menu (top left corner), select 'Manage Accounts' and + 'Add Account'. Login with your GSuite for Education account. (Check with your district for further details regarding login to GSuite for Education Accounts)

Create New Class: On teacher classroom home page select the + and click the Create class in the pop up window.

Name The Class: Under 'Class Name' enter the name of your class. Under 'Section' add additional details about the class (optional). Click CREATE (top left) to finalize the creation of the class.

Add Students: Go to the student section of Classroom. Here you will find the class code. Give students the class code to join your classroom or alternatively, add students through the 'invite' option by inputting individual emails

3. Assign Science Journals


Add Assignment: Under the 'Stream' section, click on the + (bottom right hand corner) to open a new menu. In the new menu, select 'assignment'.

1. Add assignment details such as title, instructions, topic, and due date
2. Attach the 'Living and Non-Living Nature Walk' Google Slide template under 'materials' using the paperclip icon (top right corner) and in the new window, select the slide from 'Drive'
3. You will notice that your slide is now in the 'Materials' section. Now click the arrow next to the 'eye' to select 'Make a copy for each student'
4. Post your assignment by clicking on the paper airplane icon for 'send'
5. View the posted assignment in your 'stream'

Please note: To add the Living and Non-Living Nature Walk Google slide template for your students under the 'Materials' section, you will need to ensure:


1. 1. You have download the Google Slide and Google Drive Apps on all iPads
2. 2. You have created your Slide template for Students in your Drive

prior to creating and posting the assignment in Google Classroom

Edit Assignment: You can edit assignment details if there are additional details you would like to add or to make changes. In the 'stream' section, view the posted assignment. Click the 'more options'  menu (3 dots). A new window will appear. Select 'edit' to add more details or make changes. Please note that if you did not 'make a copy for each student' when sharing the slide template, you will not be able to make this edit. You will have to 'delete' the assignment and repost.

4. Student Assignment Instructions

(Student Instructions AFTER the Science Journal has been posted in Google Classroom by the teacher):

1. Students logon to Google Classroom using their GSuite login
2. Students view the assignment in the Google Classroom Stream
3. Students click on the Google Slide and open the template
4. Students enter their name in the subtitle area of the Title Page Slide (first slide).
5. On the second slide, students enter living or non-living in the 'title' section
6. Students insert a photo of the object they classify as living or non-living in one of the two text boxes. They may have to resize and drag the image into place.
7. In the other textbox, students:
 1. Name the object
 2. Explain why it is living or non-living
8. Repeat so that students have 1 example of a living thing and 1 example of a non-living thing
9. Ensure that students 'Turn In'  their assignment when complete

Impact on Student Learning; Allowing the students to collect, and classify objects as living and/or non-living using iPads, students are building their digital fluency and are engaged in developing their 21st century learning skills (http://www.edugains.ca/newsite/21stCenturyLearning/about_learning_in_ontario.html) and redefining how technology is used in the classroom (SAMR (<https://www.youtube.com/watch?v=us0w823KY0g>)). Some of the key skills students will acquire through this inquiry: Collecting samples, making observations, analysis, collaboration, making connections, communication, and critical thinking

Global Competency Development through the use of GSuite tools:

Critical Thinking and Problem Solving:

- Create and manage a digital science journal
- Acquire, process, interpret, and analyze information through photography of real living and non-living things to make informed decisions (critical and digital literacy)

Global Citizenship:

- GSuite tools have the capability to connect with diverse audiences (other schools/students) at a global level to develop a deeper perspective, sensitivity to, and respect for human and cultural diversity
- Create a positive digital footprint

Communication:

- Communicate effectively in different contexts in oral, written and pictorial form
- Ask effective questions to acquire knowledge and deepen understanding

Collaboration

- Learn from and teach each other when working in pairs, small groups or whole groups
- Discover how to navigate GSuite tools
- Learn new discoveries, knowledge and understanding and share findings with peers
- Develop social and communication skills through hand-on on science investigations and discussions

Creativity

- Students work together on a collaborative inquiry based science journal
- Conduct detailed research/investigation on living and non-living things
- Use real world living and non-living samples to label and identify

Assessment strategy (for, as, of learning, rubrics (strands), peer evaluation sheets, other)

For Learning: Gather students for a whole group discussion. Possible questions to ask: How do you know if something is alive? What do living things need? How do you know if something is non-living? Record student statements. Digital option: Google Keep (<https://www.youtube.com/watch?v=MKXC6nFA7z8>), docAppender (<https://www.youtube.com/watch?v=cBSwGztek4>) extension.

As Learning: Take anecdotal observations of student conversations and statements during class nature walk. Educators can use Google Keep, Google extension: docAppender and/or photographs to document student learning

Of Learning: Retrieve individual student submissions in Google Classroom, grade, provide feedback and return to students in a timely manner

NEXT STEPS/EXTENSIONS/ACCOMMODATIONS/OTHER TOPICS FOR THIS TECH TOOL:

If a nature walk is not possible, teachers can ask students to search for photos of living and non-living things using the 'Explore' option in slides.

If students are not able to type our explanation, educators can have students:

- Name the object only
- Use a laptop or desktop and use the voice type tool to convert oral explanations into text or use <https://speechnotes.co/>

Students can find more than one example of a living or non-living things

Create an additional slide with a table for students to sort living and non-living images they have taken during the nature walk

ADDITIONAL RESOURCES:

Google Classroom:

<https://docs.google.com/presentation/d/1XILRVk315Club-gWisKvsEshgV1Li37rQztm6V73DNE/preview>
(<https://docs.google.com/presentation/d/1XILRVk315Club-gWisKvsEshgV1Li37rQztm6V73DNE/preview>)

[https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICAvmuKcGw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICAvmuKcGw)
([https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICAvmuKcGw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICAvmuKcGw))

<https://support.google.com/edu/classroom/answer/6020279?hl=en>
(<https://support.google.com/edu/classroom/answer/6020279?hl=en>)

Google Slides:

<https://docs.google.com/presentation/d/1i-c3vrDsst-CQ2lk8vaH0UKhiP7tHpMd1LAqWPYik38/preview>
(<https://docs.google.com/presentation/d/1i-c3vrDsst-CQ2lk8vaH0UKhiP7tHpMd1LAqWPYik38/preview>)

[https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA-O2dCgw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA-O2dCgw)
([https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA-O2dCgw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA-O2dCgw))

<https://support.google.com/docs/answer/2763168?hl=en&co=GENIE.Platform=iOS>
(<https://support.google.com/docs/answer/2763168?hl=en&co=GENIE.Platform=iOS>)

Google Drive:

[https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA67iPCgw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA67iPCgw)
([https://edutrainingcenter.withgoogle.com/resources/tools/details?
key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA67iPCgw](https://edutrainingcenter.withgoogle.com/resources/tools/details?key=ahpzfmd3ZWltZWR1LXRyYWluaW5nLWNlbnRlcnlUCxIHRWR1VG9vbBiAgICA67iPCgw))

Switching Between Multiple Accounts:

<https://support.google.com/docs/answer/2405894?co=GENIE.Platform%3DiOS&hl=en&oco=2>
(<https://support.google.com/docs/answer/2405894?co=GENIE.Platform%3DiOS&hl=en&oco=2>)

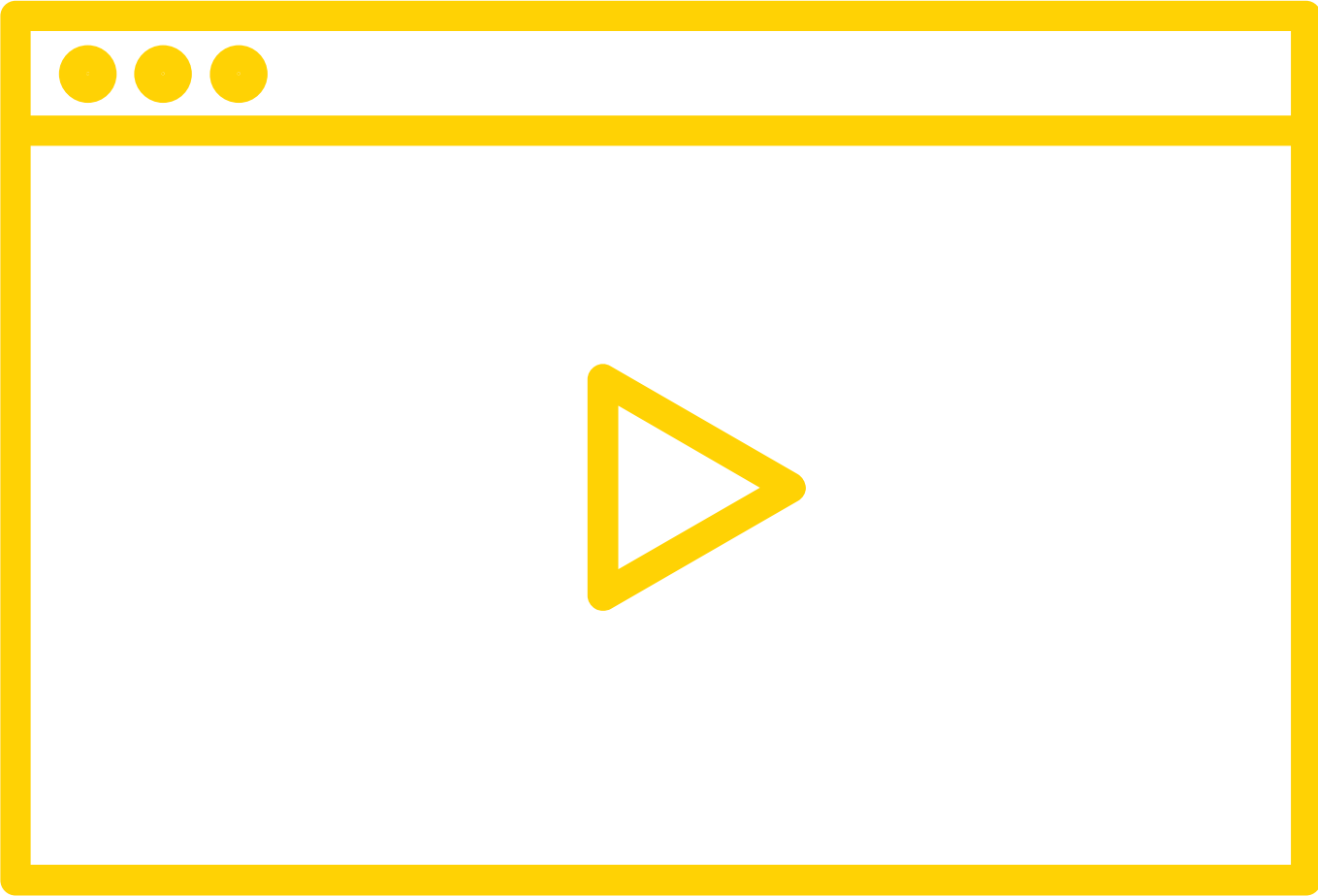
<https://support.google.com/drive/answer/2424384?hl=en&co=GENIE.Platform=iOS>
(<https://support.google.com/drive/answer/2424384?hl=en&co=GENIE.Platform=iOS>)



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WATCH THE VIDEO

09:45 min

(//www.youtube.com/embed/KVnpLepV0A0?width=800&height=450&iframe=true)

RESOURCES

-  Video step-by-step guide to create a science journal using Google Slides and student assignment instructions (<https://www.youtube.com/edit>)
-  Visual step-by-step guide to create a science journal using Google Slides and student assignment instructions (<https://docs.google.com/presentation/d/1i-c3vrDsst-CQ2lk8vaH0UKhiP7tHpMd1LAqWPYik38/preview>)
-  Video step-by-step guide for setting up Google Classroom and Posting Assignments, Steps 3 & 4 (//www.youtube.com/embed/KVnpLepV0A0?width=800&height=450&iframe=true)
-  Visual step-by-step guide for setting up Google Classroom and Posting Assignments, Steps 3 & 4 (<https://docs.google.com/presentation/d/1XILRVk315Club-gWisKvsEshgV1Li37rQztm6V73DNE/preview>)
-  Going Paperless with Google Classroom and Using Google Slides as Science Journals (<https://docs.google.com/document/d/1QJC7mNKTbL3V8lIRu3mP-639ilQ00XyhKrneppMMaTU/preview>)
-  Pre-made Slide Template (https://docs.google.com/presentation/d/1LAUW02NrmP05HqR-4BX6S3VpH_FDFcl0iLuHEYKSzC8/copy)
-  going paperless w2f gsuite in primary.docx (https://connex.stao.ca/sites/default/files/going_paperless_w2f_gsuite_in_primary.docx)
-  how to set up google classroom on ipads.pdf (https://connex.stao.ca/sites/default/files/how_to_set_up_google_classroom_on_ipads.pdf)
-  create a slide template for students using ipads.pdf (https://connex.stao.ca/sites/default/files/create_a_slide_template_for_students_using_ipads.pdf)

ELEMENT

-  Technology Enabled Learning (/expert-elements/technology-enabled-learning)



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