

INQUIRY: LIVING THINGS

(ENQUÊTE: LES ÊTRES VIVANTS)

BY

COLLINE KOOK-CHUN + LISA LEWIS

FRENCH IMMERSION TEACHER + GRADE 4 TEACHER, TDSB



A STEAM inquiry using iPads, apps and online resources for a grade 1/2 class that morphed into extension activities.

(une enquête avec les iPads pour les 1/2 années)

WHO WE ARE ... YOU WONDER

Lisa Lewis is an avid global explorer with an overactive curiosity that fuels her constant thirst for knowledge and experiences. Since 2008, she has taught with the Toronto District School Board (TDSB) in French Immersion and English track programs using an inquiry lens and cross curricular approach. An approach she finessed while teacher librarian at a French Immersion Centre for six years. Lisa has volunteered with the Ontario Library Association Forest of Reading program since 2011 as Co-Chair of the Silver Birch Fiction Steering Committee and champions an infectious love of books. Lisa is a Digital Lead Learner with the TDSB and incessantly ponders how to integrate technology into her practice. She presented at TDSB Google Camp several times, hosted a Demonstration Classroom and is quite proud of the book club for she launched this year for her students and their parents.

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WHO WE ARE ... YOU WONDER

Colline Kook-Chun, South African born, worked with disadvantaged adolescents at an inner-city school in Johannesburg before moving to Toronto with her young family. She was introduced to inquiry in the primary classroom while working with kindergarten children in the Toronto District School Board (TDSB). Colline currently guides students in a grade 1/2 French Immersion combined class while continuing to search for ways in which to make learning relevant for her students. She holds the Chair position at her current school, has mentored many new teachers as they begin their teaching career, and co-presented at the TDSB Google Camp this year. She can often be found tweeting about what happens in her classroom.

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PREAMBLE

This presentation is about the quest for information and what one does with it. It shares the journey of a teacher, a teacher librarian and their students as they embark on an inquiry into living things. What makes it special is that the students are young (grades 1 and 2) and all learning takes place in a French Immersion setting. For those keen to learn more about the inquiry and research process and how to implement it in your class we hope our experience inspires you.

This rich inquiry project can easily be used as a springboard for your endeavors in either a primary or junior classroom.

Colline and Lisa

OVERVIEW OF LIVING THINGS INQUIRY

Given that the Ontario Curriculum for Science and Technology encompasses the Scientific Inquiry/Research Skill Continuum, we were on a mission to dive into this continuum and demonstrate that student success in the French Immersion primary class is attainable. Children are by nature curious and this zest for exploration should be an integral component of their learning.

The grade 1 and grade 2 expectations in the Curriculum makes reference to living things. In grade 1, students explore the needs and characteristics of both plants and animals; in grade 2, students explore the growth and changes in animals.

In the combined class, we merged these expectations into our inquiry on animals. During their research, students were able to explore the characteristics of the animal of their choice, its life cycle and habitat. Motivation was evident at all times.

THE INQUIRY PROCESS

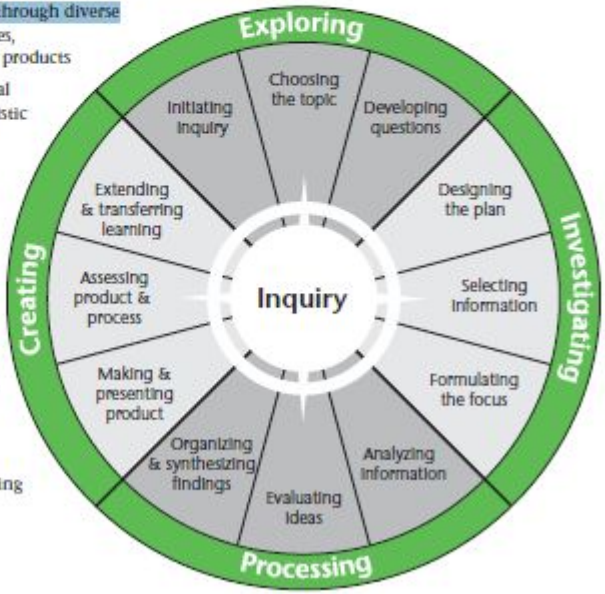
Discovery and Guided Inquiry

To create a school-wide focus on the inquiry process, participants in the Learning Commons collaborate to promote the use of an inquiry model which:

- Expands personal horizons and knowledge base
- Encourages the collision of ideas
- Engages the learner in rich, real-world tasks that interest and motivate
- Embeds essential and recurring skills and knowledge
- Provides a strategy for processing information
- Benefits from intentional, guided intervention
- Scaffolds learning for success
- Promotes open-ended thinking in all phases of the process

• Extends learning through diverse strategies, resources, technologies, and products

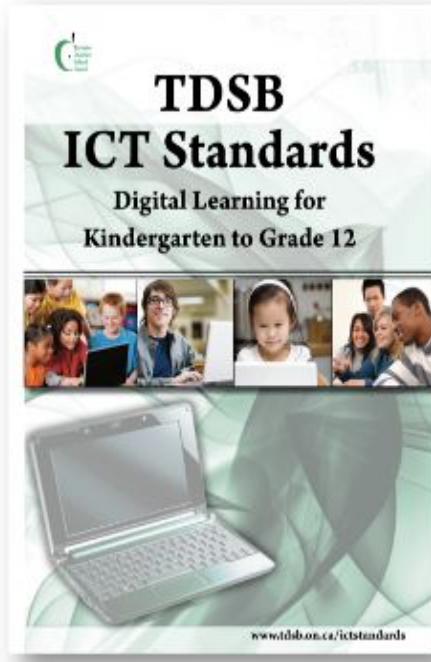
- Balances sequential learning with holistic learning and differentiated instruction
- Develops multiple literacies
- Fosters metacognition, i.e., learning how to learn in both familiar and new contexts
- Encourages a collaborative approach to learning



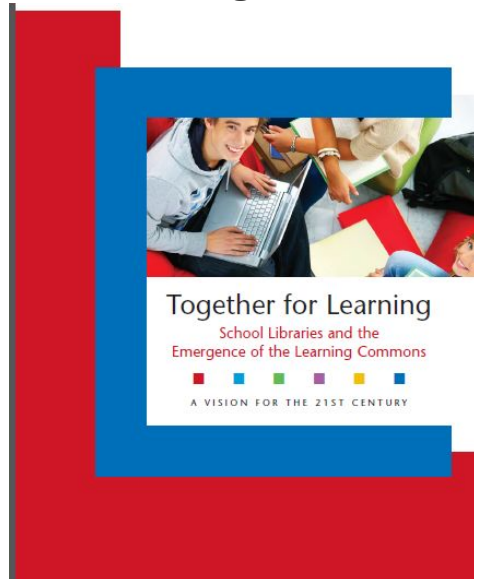
A Model for Inquiry

This image from *Together for Learning: School Libraries and the Emergence of the Learning Commons* highlights the building blocks of the inquiry process. Students were introduced to the four stages (Exploring, Investigating, Processing and Creating) in order to ensure they not only grasped, but were able to integrate this skill set into their psyche so that in time, it would be second nature. In Junior grades the Inquiry Process would be developed and all parts of this Model would be built upon.

LINKS TO THE RESEARCH PROCESS + ICT STANDARDS (LA PROCESSUS DE LA RECHERCHE)



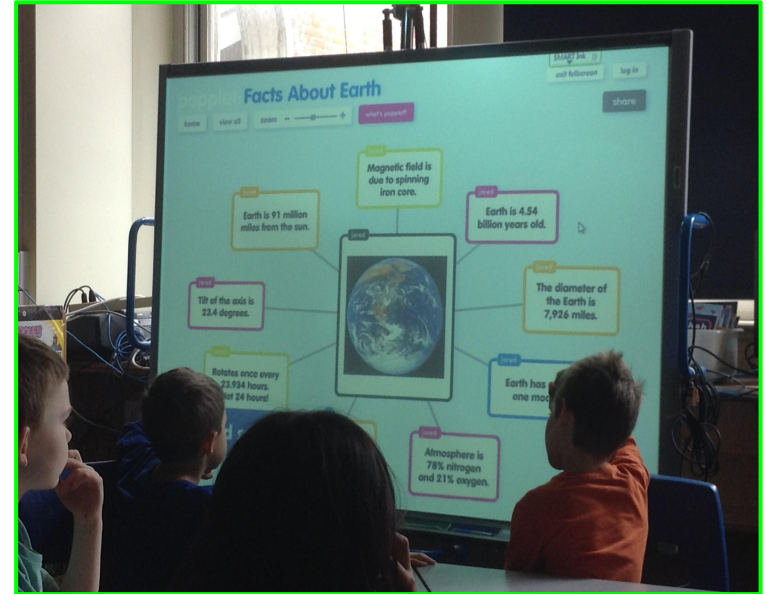
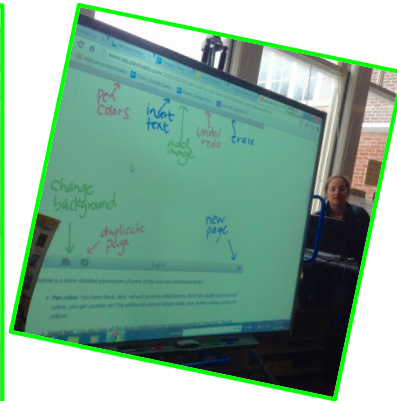
OLA publication, *Together for Learning*
Together for Learning



INTRODUCTION TO THE IPAD'S, GAFE + POPPLET

(INTRODUCTION AUX IPADS, GAFE ET POPPLET)

Learning Goal: I can discuss the rules for using the iPad in a big group setting.
But d'apprentissage: Je peux discuter les règles pour l'utilisation des iPads.



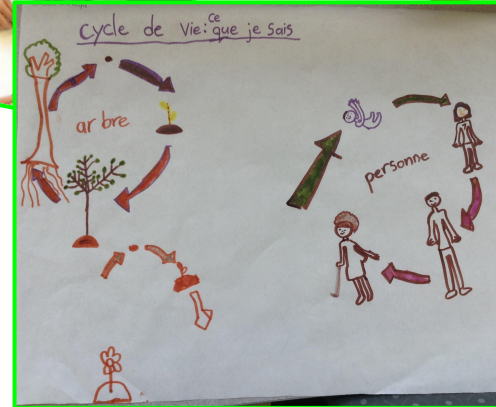
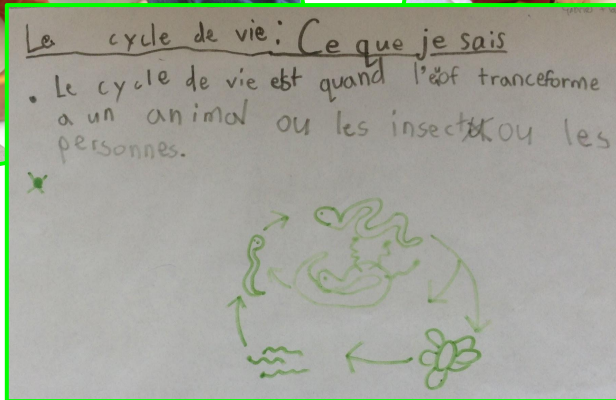
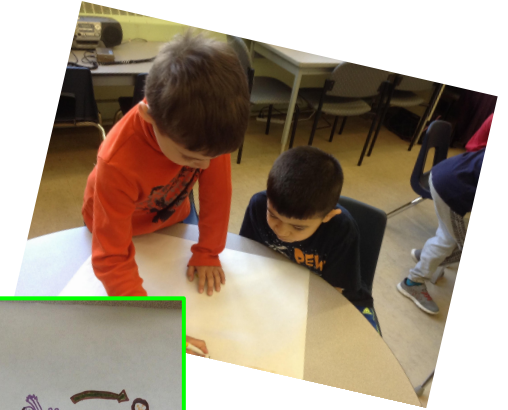
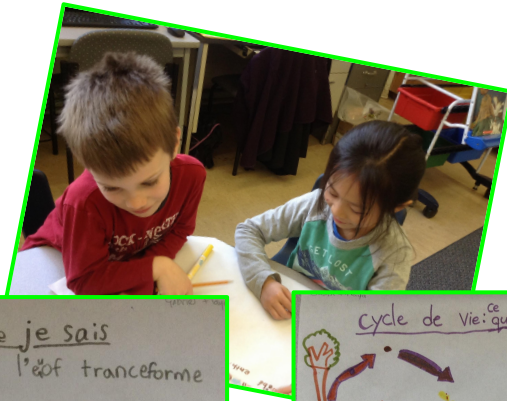
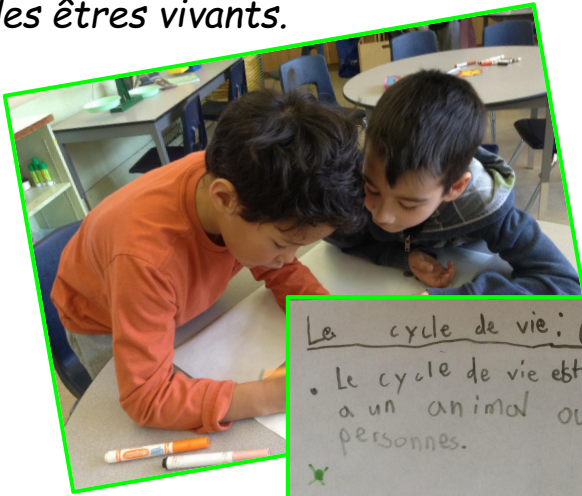
Learning Goal: I can listen when the teacher shows us examples of work done using the Google Apps for Education (GAFE) et Popplet.

But d'apprentissage: Je peux écouter quand le professeur nous montre les exemples du travail fait avec GAFE and Popplet.

PRIOR KNOWLEDGE (LA CONNAISSANCE PRÉALABLE)

Learning Goal: With a partner, I can write/draw all that I know about the life cycles of living things.

But d'apprentissage: Avec un partenaire, je peux écrire/dessiner ce que je connais sur des cycles de vie des êtres vivants.

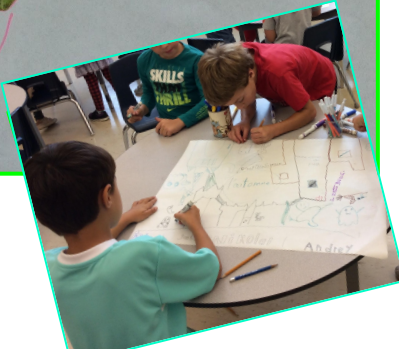
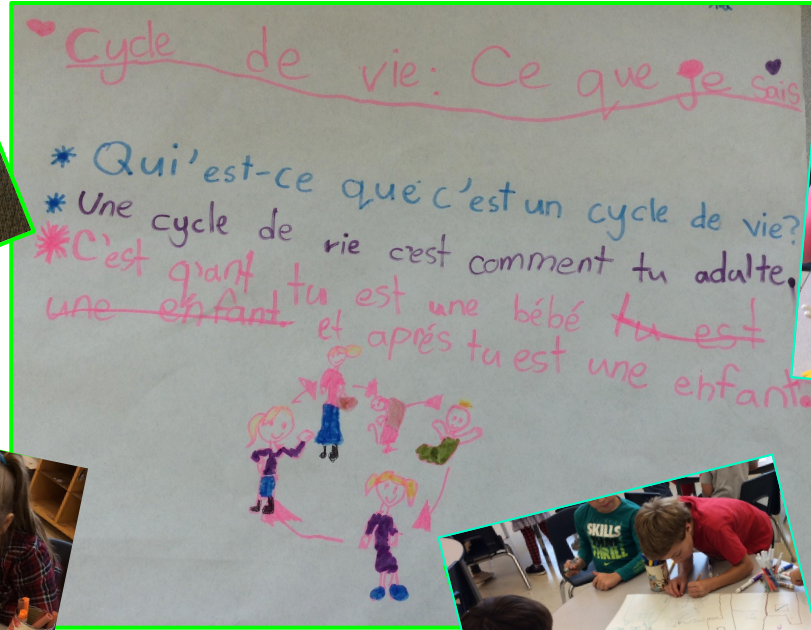


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Curriculum Connections:

Investigate the life cycle of a variety of animals. (Grade 2)

Use a variety of forms to communicate for a variety of purposes. (grade 1 & 2)

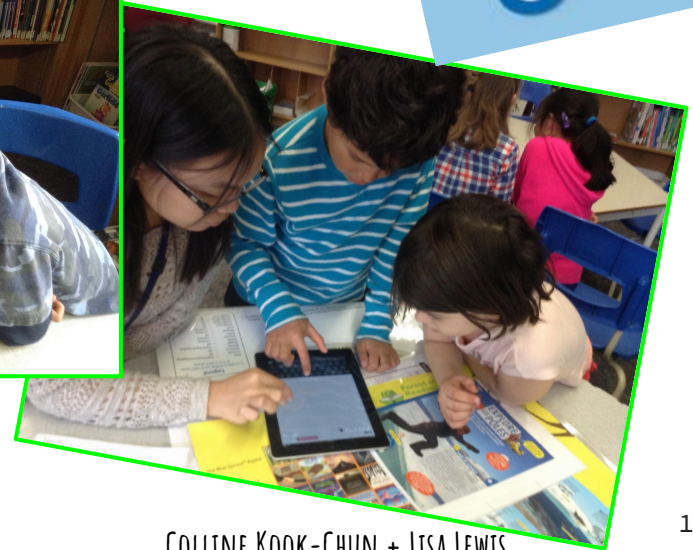


EXPLORING POPPLET (L'EXPLORATION DE POPPLET)

Learning Goal: In a small group, I can explore the application Popplet.

But d'apprentissage: En petit groupe, je peux explorer l'application Popplet

Popplet is a mind mapping app ideal for brainstorming, sharing, learning and teamwork.



LEARNING VOCABULARY (L'APPRENTISSAGE DU VOCABULAIRE)

Learning Goal: I can learn relevant French vocabulary when playing games (e.g., bingo, memory game).

But d'apprentissage: Je peux apprendre le vocabulaire en français quand je joue les jeux comme le bingo et jeu de mémoire.



SEARCHING FOR RESOURCES (BOOK SELECTION)

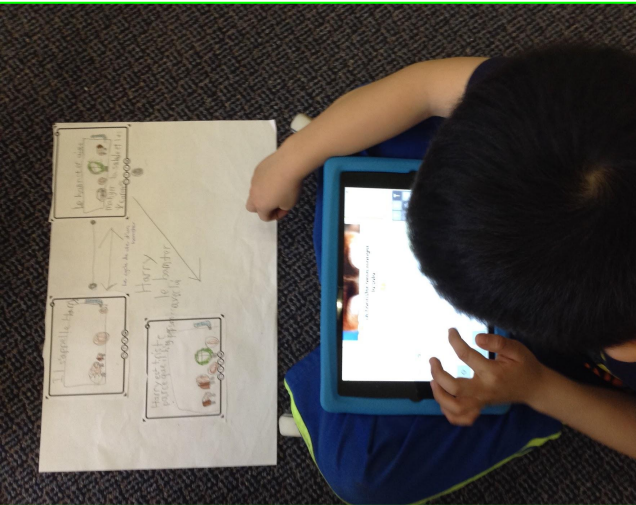
Learning Goal: I can search for resources in the school library and choose appropriate materials.

But d'apprentissage: *Je peux chercher des ressources dans la bibliothèque de l'école et choisir des ressources appropriées.*



SEARCHING FOR RESOURCES (ONLINE RESOURCES)

Learning Goal: I can search for resources using the TDSB Virtual library and an online search engine then choose appropriate materials. **But d'apprentissage:** Je peux chercher des ressources dans la bibliothèque virtuelle de TDSB et en ligne puis je peux choisir des ressources appropriées.



se déconnecter
UNIVERSALIS junior

accueil continents dictionnaire video

chercher recherche alphabétique

Le saviez-vous ?
L'ancienne ville de Stabies fut elle aussi détruite par l'éruption du Vésuve.
► lire l'article

aujourd'hui

l'article du jour
tigre
Les tigres sont les plus grands félins. Comme les lions, ce sont des chasseurs puissants et féroces. On les trouve à l'état sauvage dans certaines régions de Russie, de Chine, et d'Asie du Sud et du Sud-Est. Ils vivent dans les forêts, les prairies et les marécages. Les tigres mâles peuvent mesurer jusqu'à 1 mètre de hauteur pour 3 mètres de longueur (queue comprise) [...]

l'image du jour
Que suis-je ?

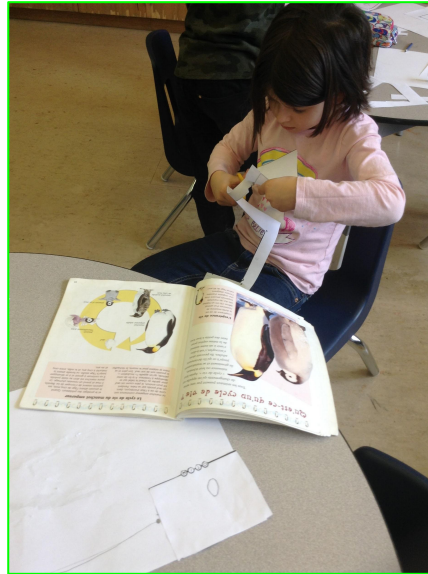
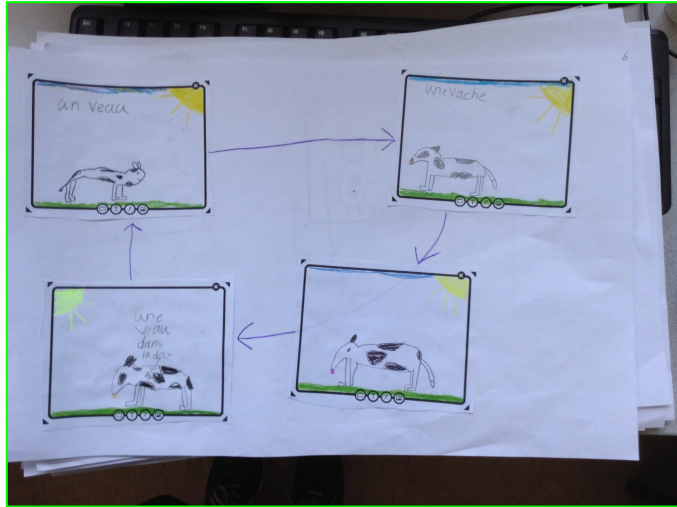
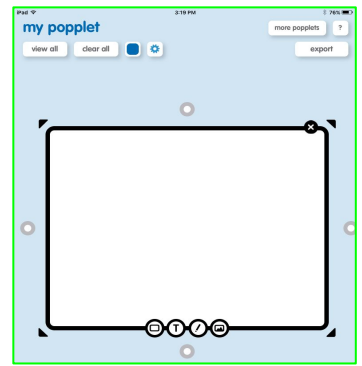
les livres d'images
découvrez les grands chefs d'œuvre

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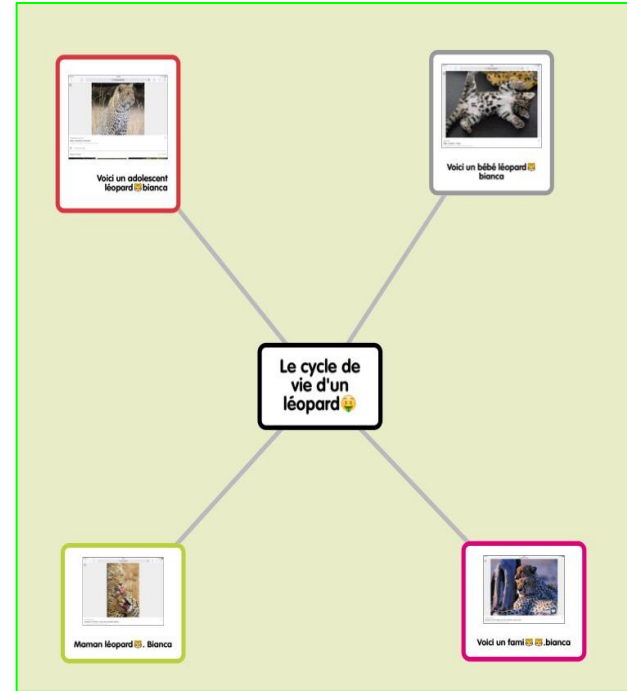
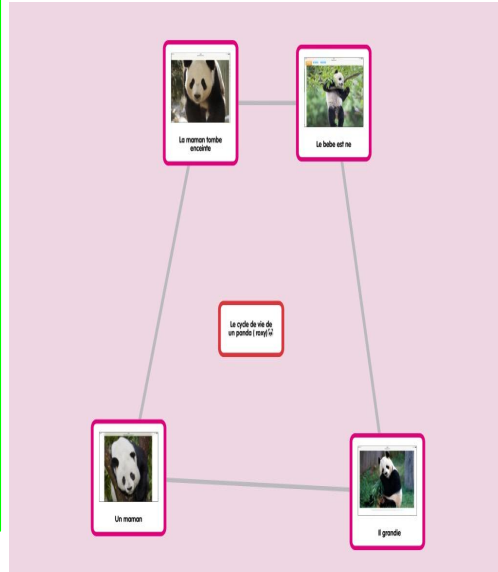
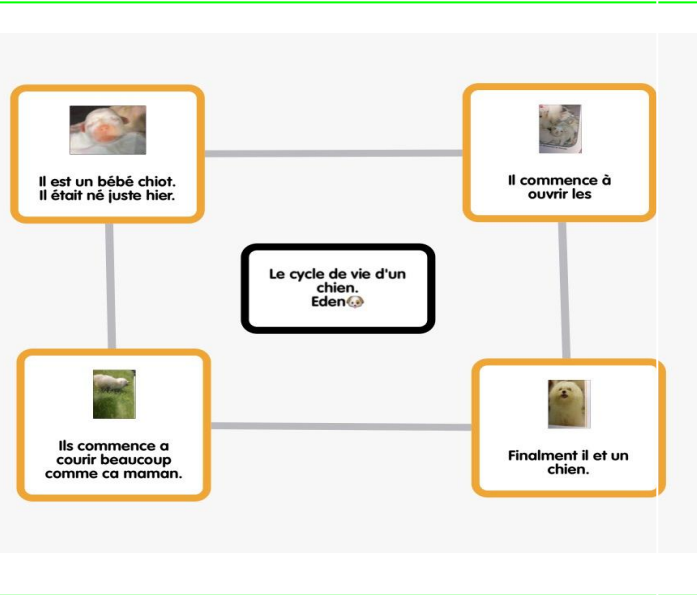
PLANNING/PLANIFICATION



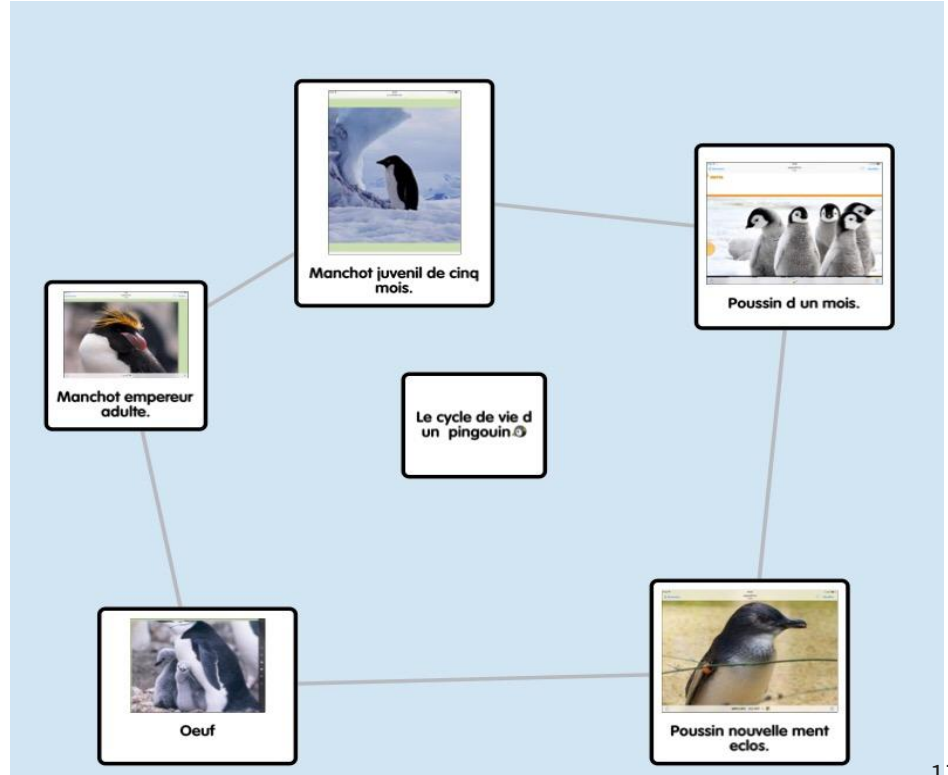
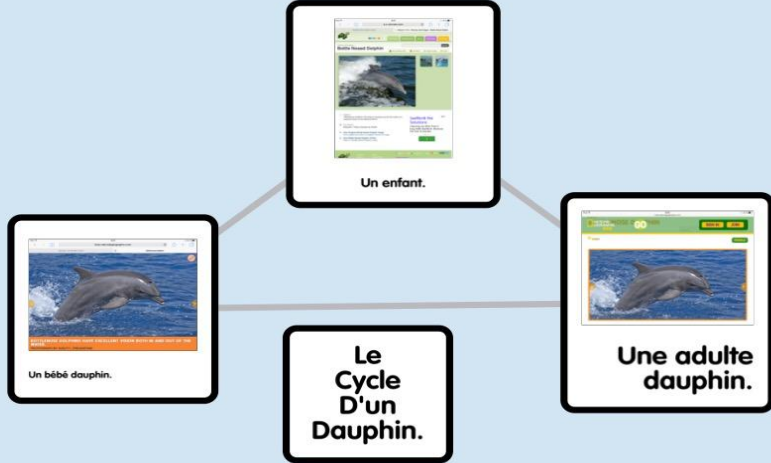
Learning Goal: I can create a rough copy using popples, books and art.

But d'apprentissage: Je peux créer un brouillon en utilisant des popples, des livres et de l'art.

FINAL PRODUCT - LA TÂCHE FINALE



FINAL PRODUCT - LA TÂCHE FINALE



EXTENSION ACTIVITIES TO DEEPEN LEARNING

Dramatic Arts

Learning Goal: Dramatic activities allow students to show learning in a format that highlights communication of feeling and knowledge. Students use storyboards to create their drama. Critical thinking skills are inherent in the task.

But d'apprentissage: *Je peux créer un storyboard qui s'agit d'une histoire des animaux.*



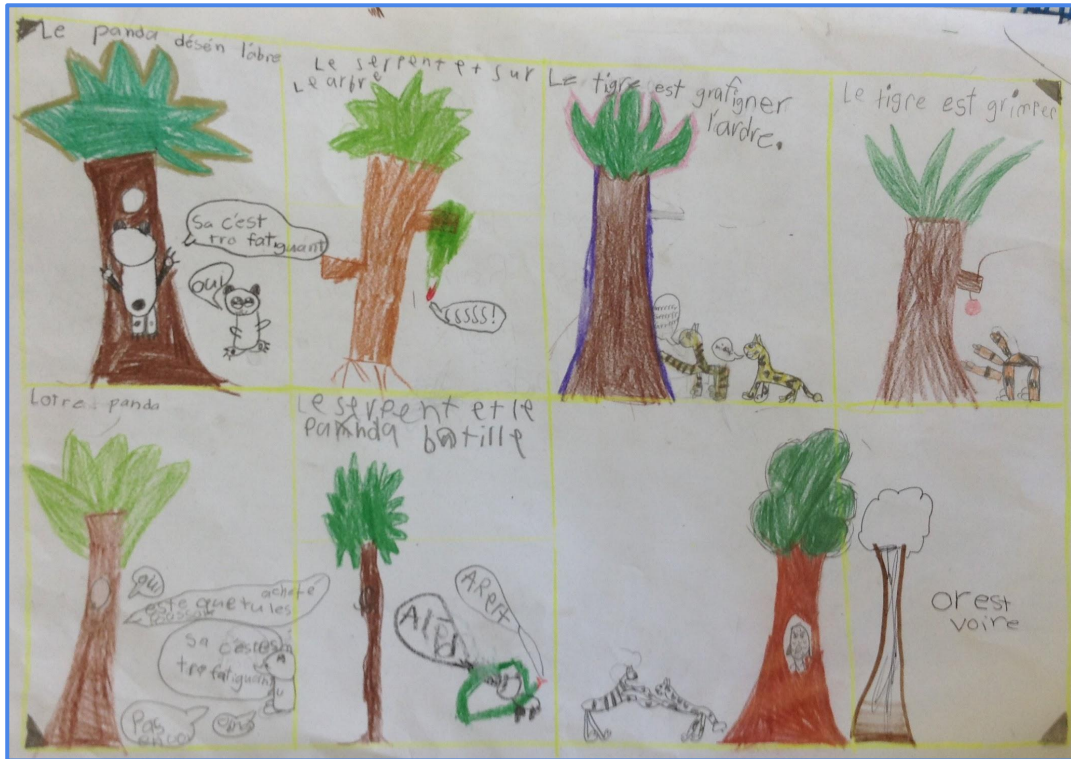
EXTENSION ACTIVITIES TO DEEPEN LEARNING

Dramatic Arts Storyboards



EXTENSION ACTIVITIES TO DEEPEN LEARNING

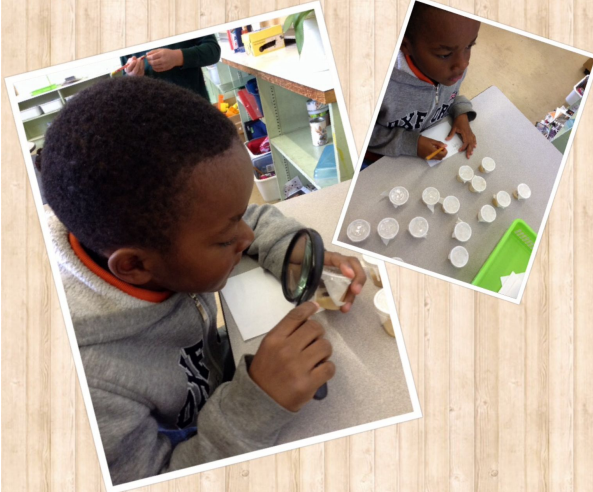
Dramatic Arts Storyboards



EXTENSION ACTIVITIES TO DEEPEN LEARNING

French Language Activity: Oral and Written Recount by Student on Pic Collage

observing the life cycle of a butterfly



Mes observations:

J'ai observé que il a fait un chrysalis et que les papillons a volé. Et le chenilles a bougé sur le bâton. Et que les papillons aiment le soleil. J'ai aimé expérience de papillons.

PICCOLLAGE



Mes observations:

Je n'ai pas aimé les personnes qui boss you parce que les papillons est ici. Et les papillons et les chenilles puent. Les chrysalides est un peu or. Les papillons aiment l'orange.

PICCOLLAGE

observing the life cycle of a butterfly



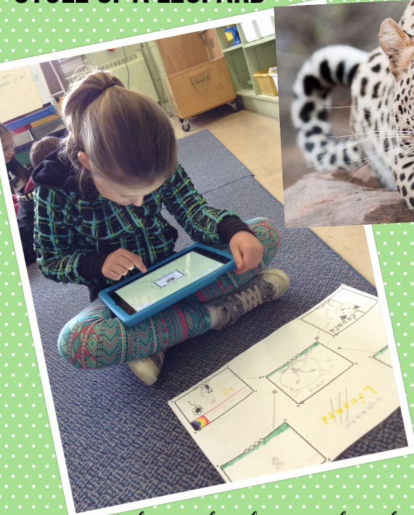
Mes observations:

J'ai observé que les chenilles a allé au haut de les pour faire le chrysalis j'ai vu que les

EXTENSION ACTIVITIES TO DEEPEN LEARNING

French Language Activity: Independant Written Recount by Student using Pic Collage

CYCLE OF A LEOPARD



"J'ai fait le cycle de vie d'un léopard. J'ai choisi parce qu'il est mignon. J'ai aimé l'activité que j'ai fait avec Popplet parce que j'aime faire les popplets et c'est très easy. Chercher les photos étaient easy. Et j'ai appris comment tu peux faire les accents sur l'ipad. Et j'étais très happy quand j'étais fini parce que c'était a lot of work."

PICCOLLAGE

CYCLE OF A DOG



"J'AI FAIT LE CYCLE DE VIE D'UN CHIEN. J'AI CHOISI PARCE QUE J'AIME LES CHIENS ET MA COUSINE A UNE CHIEN ET J'AIME LES CHIENS BEAUCOUP. J'AI AIMÉ LES POPPLETS PARCE QUE C'EST TRÈS AMUSANT."

PICCOLLAGE

CYCLE OF A HAMSTER



"J'ai fait le cycle de vie d'un hamster. J'ai choisi l'hamster parce qu'il est très mignon. J'ai aimé utiliser Popplet parce que il use images. J'ai aimé utiliser l'iPad. Parce que il a games. Et a Cottonball."

PICCOLLAGE

DOCUMENTATION OF LEARNING

Name: Manoah **Date:** April/May

Inquiry: Living Things
Subject: The Arts: Drama

Learning Goal:
I can create a dramatic play in a small group using puppet animals that I have made.

Curriculum Connections:
By the end of grade 2,

- Plan and shape dramatic play by building on the ideas of others.
- Students will communicate feelings and ideas to a familiar audience using a few simple visual or technological aids to support and enhance their drama work.

Comment:



Manoah worked well with his group members in the creation of his storyboard. He was focused on his task at all times.

Manoah worked well with his group members. He was focused on his task and was willing to practise his part more than once.

See rubric for presentation notes.

Documentation

Name: Jude

Date: 22 - 26 May

Inquiry: Living Things

Learning Goal: On my own I can do research on an animal using a non-fiction book from the library. Afterwards, I can write a paragraph on the animal using my research notes. For my neat copy, I can type my paragraph on the iPad using the Piccollage application.

Curriculum Connections:

By the end of grade 1, students will:

- Use appropriate science and technology vocabulary in written communication (Science)
- Use a variety of forms to communicate with different audiences for a variety of purposes (Science)
- Identify the physical characteristics of a variety of animals (Science)
- Identify a few reading comprehension strategies and use them appropriately before, during, and after reading to understand a variety of French texts, with teacher support (French)
- Write a variety of texts in French, conveying information, ideas, and opinions about themselves, friends, family, and their immediate environment, following models appropriate to the purpose and incorporating some of the basic elements of each form (French)
- Confirm word meanings and review, refine, and vary word choices, using a variety of resources (French)
- Edit, proofread, and publish a variety of written pieces, following a model or a set of guidelines to meet established criteria, with support as appropriate (French)

Comment: The children worked independently on a task that they had previously done with a partner. Support was given by the teacher in the research phase. Once the research notes had been corrected, children wrote a paragraph on the animal they had researched. For their neat copy, they typed their work on the iPad using the application Piccollage. They illustrated their writing by searching for appropriate pictures on the internet.

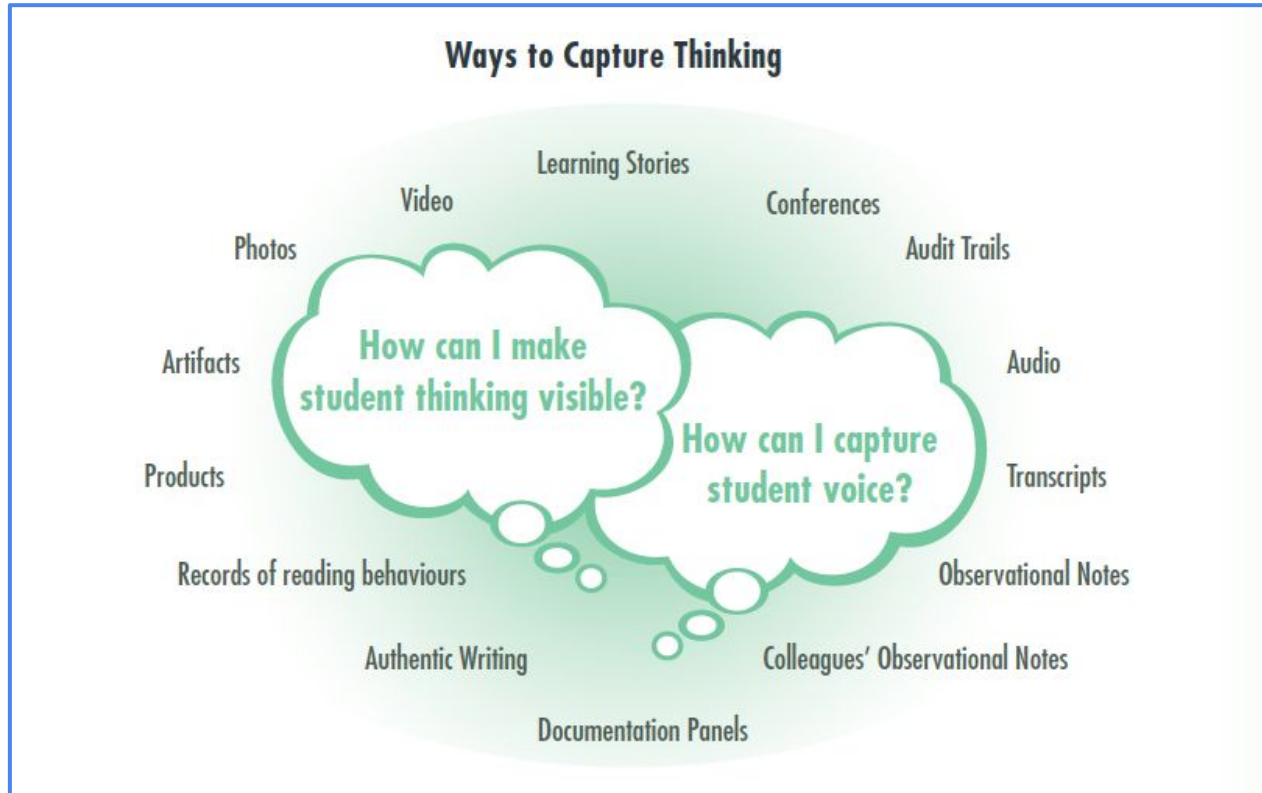
DOCUMENTATION OF LEARNING

WHY DOCUMENT?

- Pedagogical documentation is a process that makes student thinking and learning visible. It captures student learning, the teachers' analysis and reflection of student learning.
- Shows prior learning and understanding.
- Pedagogical documentation is used for report cards, teacher parent meetings and student conferencing.
- Documentation is the gathering of information and segways into a shift in teaching practices. When you begin the process, it can feel frustrating but, with time, this assessment tool will facilitate inquiry in the environment.
- Analysis of documentation helps you make decisions about student learning.

How To Document

This image is from the Capacity Building Series 'Pedagogical Documentation' published by the Ministry of Education.



PEDAGOGICAL DOCUMENTATION HOW-TO CARDS

Click on this link [How To Set Up Documentation](#) to view a set of cards outlining steps on how to use Google Docs to create documentation records. Below is an image of Step 1. At our school, the cards were printed, laminated and then a ring was used to hold them together.

Step 1: To Begin

- Decide on the layout of the document (i.e., headings, text box, bullet point).
- Decide what to include (i.e., subject, learning goal, curriculum connections, learning skills).
- Decide on what to document (i.e., a physical product, children working in groups, math activity).

Unit Plan Google Doc

To guide the inquiry, this Google Doc was written to outline the flow of activities, curriculum and ICT expectations. Click on the link [Inquiry Unit Plan](#) to view the Google Doc.

FINAL DOCUMENTATION PANELS

Learning Goal: I can create a storyboard in a group.

But d'apprentissage: Je peux créer un storyboard en classe avec mes camarades.

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FINAL DOCUMENTATION PANELS

Learning Goal: I can write down my observations on the needs of plants.

But d'apprentissage: Je peux noter les observations d'une expérience sur les besoins des plantes.

