

## **Assessment Plan**

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ECS 401: Critical of Assessment

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## Assignment #3 (ECS401): Summer 2023 Assessment Plan Template

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**Grade and Subject:** *Grade 1, Science*

**Unit:** Metamorphosis! Understanding the Transformative Life Stages of Frogs

### 1. Curricular Outcomes:

#### Outcome #1 (Science)

**LT1.1:** Differentiate between living things according to observable characteristics, including appearance and behaviour. (CP, SI)

**Indicator:** (j) Compare characteristics of plants and animals at different stages of their lives (e.g., compare an adult dog with a pup, compare a young tree with an older established tree, and compare a baby bird with a fully grown bird).

#### (Cross Curricular Outcome for Summative Task):

**Outcome (Arts Education): CR1.1:** Demonstrate understanding that the arts are a way of expressing ideas.

**Indicator:** (g) Identify main ideas or feelings in own arts expressions.

**Explanation of Outcome:** Resultant of these learnings and the associated summative task, students will know the four stages of life that a frog goes through as it progresses from an egg into a mature adult. Students will understand how a frog's physical appearance changes in relation to a timeline associated with their stage of development. Students will understand at a basic level the associative anatomical and physiological changes that occur in regard to how frogs move and breathe relatively to the developmental growth stage that they are in. Students will be able to correctly identify and match the physical appearance of a frog to its corresponding life stage. As a summative task, students will develop their own illustrations of a frog's life cycle by creating a series of four collective drawings charted within a poster.

**Ensuring Students Understand Outcomes:** To enhance student understanding relative to the curricular outcomes for this unit, a lesson will be provided to students on the four life stages of frogs using varied modes of delivery including: direct instruction, a class question and discussion period, storytelling, observation, previewing a selection of educational videos on the topic and an associated field trip. Students will be invited to further explore learnings related to this topic during free play in class as it will be also integrated as a [learning center](#) (Pinterest, n.d.) to deepen the learning experience for students and strengthen their understanding of the four stages of a frog's life. To support students in developing and creating their final summative task which students will be assessed on for this unit, the teacher will preview students with two or more quality exemplars (Cooper, 2007, p. 185) of posters that depict the 4 different stages of a frog's life.

[Video #1 - "The Life Cycle of a Frog"](#) (Learning Junction, 2021).

[Video #2 - "Tadpole to Frog"](#) (Ms. Lindsey's Book Nook, 2021).

[Video #3 - "From Tadpole to Frog" \(view from 5:52-7:32 minutes\)](#) (Butterfly Garden Preschool, 2021).

***I can statements:***

- I can identify the four life stages of a frog
- I can recognize the appearance of a frog in relation to its stage of life
- I can describe how a frog moves and breathes based on its stage of life
- I can observe how a frog's body changes as it grows
- I can record comparisons between a young frog and an adult frog

**Outcome #2:**

**LT1.2:** Analyze different ways in which plants, animals, and humans interact with various natural and constructed environments to meet their basic needs.

**Indicator(s):**

(a) Identify the physical needs (i.e., food, water, air, shelter) that plants, animals, and humans require for survival

(d) Investigate, through field trips to natural habitats, nature videos, and community walks, home and habitats of local plants and animals to determine how they meet their basic needs

(k) Explore how people demonstrate respect for living things by caring for domestic plants and animals (e.g., growing a plant, hatching eggs, and keeping a pet).

**Explanation of Outcome:** Frogs use different mechanisms to survive the harsh environments that they live in. After working on tasks related to this outcome, students will gain an understanding of the skills and tactics that frogs use to survive. Students will recognize what necessities frogs need for survival in terms of food, water, and shelter. Students will understand how to properly care for frogs to ensure their growth and survival when they are not living in their natural habitat. Students will be able to identify, with a basic understanding, what types of environments frogs need to survive.

**Ensuring Students Understand Outcomes:** To ensure students' understanding of the outcome for this unit, a lesson will be given that provides information on a frog's survival needs. The lesson will inform students about the types of habitats frogs live in, what form of food they eat to survive, potential predators that could harm the reptile, and the basic understanding of how to care for a frog. As a whole class formative assessment, the students will collectively care for and nurture the reptile to observe it from its early stages of life to its full-grown form. This will enhance the student's understanding of the necessities the reptile needs in order to grow. To support students ability to complete their final summative task, they will take a trip to a local pond so that they can observe frogs in their natural habitat and gain an understanding of what resources are needed to ensure the frogs survival. Videos, class-discussions, a field trip, and observations will all be used to ensure students understanding of the given outcome.

[Video #1- Frog Habitats](#) (Study.com, 2021)

**I Can Statements:**

- I can determine a frog's basic needs for survival
- I can record the types of habitats a frog requires for survival
- I can care for a frog in all stages of its life cycle
- I can determine the different stages of a frog's growth

**Outcome #3:**

**DS1.2** Inquire into the ways in which plants, animals, and humans adapt to daily and seasonal changes by changing their appearance, behaviour, and/or location

**Indicator(s):**

**C.** Examine daily changes in the characteristics, behaviours, and location of plants, animals, and humans (e.g., some animals sleep at night, students go to school during the day, and some plants close their leaves at night).

**F.** Construct representations of plant, animal, and human adaptations to daily and seasonal changes (e.g., humans wear different clothes, some plants lose their leaves in winter,

**Explanation of Outcome:** Frogs adapt to daily and seasonal changes by changing their appearance, behaviours, and locations etc. This outcome enhances their survival and helps reproductive success, which will allow them to better cope with the environment and how the conditions changed. This also allows frogs to optimize their chances of survival by having the resources they need and avoiding threats.

**Ensuring Students Understand Outcomes:** To ensure students understand how frogs adapt to daily and seasonal changes, teachers may use videos on frogs. Videos will help the students understand how frogs adapt their appearance, behaviour, and location throughout their life cycle to survive.

1. [Video #1 - "Frog Adaptations"](#) (Michelle Jones. 2022)
2. [Video #2 - "What Do Frogs Do in Different Seasons?"](#) (urbanecologycentre. 2020)

**I Can Statements:**

- I can explain how frogs adapt to daily and seasonal changes by changing their behaviour, appearance, and location

**2. Summative Assignment/Task**

The summative task that students will be asked to create to demonstrate their understanding in relation to the outcomes will be a visual representation which depicts the four life stages of the frog. Students will organize a series of illustrations of the physical attributes of a frog, corresponding their illustrations to the subsequent life stage of the frog. Students will be invited to preview exemplars of the assignment prior to developing their own to familiarize them with the criteria associated with the project (Cooper, 2007, p. 185). Prior to engaging in the summative task students will know the four life stages of a frog and understand the differences in appearance and adaptations of a

frog in each stage. Students will be able to describe the appearance and physical attributes of a young frog compared to an adult frog. A variety of paper, writing implements and paints will be made readily available to students and the project will be process based to allow students to effectively communicate their own ideas and understanding of the life stages into their visual representation. Students will connect their learning across the subjects as the summative task will be their own artistic visual expression of the knowledge and learning that they acquired from science.

#### [Summative Assignment](#)

**3. Rubric:** *(Attach the rubric you will use to assess students for their summative task).*

#### [Rubric](#)

#### **4. Differentiation**

Using Tomlinson and Moon's framework (2013), here's how assessment can be differentiated for the summative task of creating a Frog Life Cycle poster.

- Readiness - Consider the student's readiness levels in terms of their understanding of the frog's life cycle. Some students may have a more thorough understanding, while others may still be developing their knowledge. To differentiate in the summative task, teachers can provide additional resources, such as books or videos, for students who need more support in understanding the concept.
- Interest - Acknowledge and cater to the diverse interests of the student. Offer choices for the art materials they can use and encourage them to express their creativity in ways that are meaningful to themselves. This can include providing a variety of art supplies, allowing students to choose their preferred tools such as painting or drawing, and anchorage them to add personal touches to the poster.
- Learning Profile - Consider the various learning profiles of the students, such as visual, kinesthetic, or auditory learners. Provide multiple types of representations and expressions to cater to different learning styles. Visual learners emphasize the use of illustration and visual aspects on their posters. For kinesthetic learners, the teacher can allow them to create 3D representations of the frog life cycle using clay.
- Support - Teachers must offer support and scaffolding based on an individual's needs. Providing pre-cut and pre-printed numbered labels to ensure accuracy in labelling the life cycle stages. For students who require additional assistance, teachers can provide templates or outline to guide their drawings. Consider having a peer or teacher feedback session where students can receive suggestions and guidance for improving their posters.

By differentiating the assessment for the Frog Life Cycle Poster, a teacher can accommodate the diverse needs, interests, and learning profiles of the students, providing them with a meaningful and engaging way to showcase their understanding of the topic. (Tomlinson & Moon, 2013)

#### **5. Triangulation of Data**

Students will be formatively assessed through the use of observations, conversations, and products that demonstrate their understanding of the topic. Whole-class conversations, group discussions, peer group meetings, and one-on-one conversations between the student and the teacher will be used to get a grasp on how well the students are understanding the topic. While conversing, I will be observing which students are confident in their understanding

and which are not. By using methods such as taking notes, using checklists for each student, and recording observations on a sheet or document, I will be able to dictate how well each student is able to understand and apply their learning on the topic. Giving constant feedback is a strategy that will also be used to ensure that the student is able to constantly be moving their learning forward. This feedback may take place in the form of one-on-one discussion, peer feedback, or by writing and commenting on handed-in documents. If students are struggling with a certain learning task or concept, and are asking questions that demonstrate their confusion, I would take the initiative to help the students understand by using exit slips, having them ask clarifying questions, or using peer discussions to help them achieve insight on the lesson. I will use prompts such as: "What did you find confusing about the topics being discussed in today's lesson?", "What questions are you left with after today's lesson," "How well do you think you understand the content of today's lesson" and "What can I (the teacher) do to help you better understand the content of the lesson?" I will be looking for proof that the student is understanding the content being covered in class. To do this I will watch for students ability to explain their understanding to a peer as well as their ability to take part in classroom and group discussions. I will also use exit slips that will demonstrate each students understanding at the end of each class. To approach a situation where the data from conversations and observations does not align with the summative data I will take the initiative to re-teach the content and thoroughly explain the outcome so that the students understand what they must do to reach the desired outcome. I will also co-create the rubric with my students so that they can fully understand how to complete the formative tasks while moving their learning forward to complete the summative assessment.

[Exit Slip Sheet](#)

[Concept Check](#)

#### **6. Formative Feedback Tasks/Tools and Self and Peer Assessment:**

Some additional ways to provide formative feedback to students are peer feedback and teacher conferences. Students will have the opportunity to share their posters with their peers and receive feedback about what other students like or areas of improvement. The teacher may schedule one on one meetings with each student to discuss their poster, their understanding of the frog's life cycle, and their creative choices, This will allow for personalized feedback and guidance. The formative feedback will be provided throughout the mini-unit as students work on their posters to provide ongoing support and guidance.

[Teacher Conferences Check-in Notes](#)

#### **7. Self and Peer Assessment Tasks and Tools**

Students will be involved in self and peer assessment by using self-review sheets, peer feedback forms, and exit slips. The self-review sheets will allow students to document where they started, what they learned, and how they need to improve. Peer feedback forms will allow students to assess their peers work by commenting on what they liked and what they think could use improvement, as well as asking questions that will help them gain insight into the content they are learning in class. The exit slips will encourage students to ask clarifying questions that help them understand parts of a lesson that confused them, as well as document the growth of their learning over a unit. The peer feedback and self-assessments will be used continuously throughout the unit so that students can monitor their understanding and growth to achieve the desired outcome of a learning period.

[Student Self Reflections](#)

[Peer Assessment Rubric](#)

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