

MINISTRY OF EDUCATION YOUTH & INFORMATION

The Student Assessment Unit



Assessment Coordinator's Training Manual

February/March 2018

Objectives

At the end of Day 1, you should be able to:

- Determine the DOK level of a given assessment task
- Design/select an assessment task at a given DOK level for an objective or group of objectives from the NSC
- Create an assessment plan for a unit of the NSC

At the end of Day 2, you should be able to

- Distinguish between the different types of rubrics
- Develop rubrics for assessment tasks

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Day One

What Level Am I?

Determine the DOK levels of the items below.

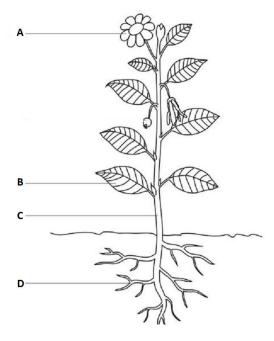
Science

Task 1

Objectives: •

- Identify, draw, and label the basic structure common to flowering plants and animals
- Make labelled drawings of the external parts of plants

The diagram shows a typical plant. Identify the parts of the plant labeled A, B, C and D.



Task 2

Objective: Draw conclusions from results of investigations on different food production methods

The table shows the results of an experiment conducted. The aim of the experiment was to test the effects of different growth media on plant growth.

	Plai	nt A	Plant B		
Growth Media	Height of Plant (cm)	Number of Leaves	Height of Plant (cm)	Number of Leaves	
Soil only	6	4	6	5	
Soil + organic fertilizer	13	8	10	12	
Soil + chemical fertilizer	8	5	7	4	

What is a possible conclusion that could be made from these results?

- A. The growth media used has no effect on plant growth.
- B. Chemical fertilizers are better at improving plant growth than natural fertilizers.
- C. Plants grow better when grown using organic methods
- D. Growing plants without using fertilizers is good for soil organisms.

Task 3

Objectives:

- Operationally define the term energy
- Relate selected sources of energy to their corresponding energy forms
- Assess the impact of increased technology on energy use
- Justify the need for energy conservation
- Work cooperatively in groups
- Make and record observations of energy forms
- Suggest options for conserving energy

The principal has just announced that almost a half of the school's annual budget is spent on energy costs. He has launched a school wide competition where each class will present a proposal to reduce the school's energy bill. Your teacher wants to select the best proposal to represent the class. Working in teams of six,

- 1. Identify the ways that the school uses energy and the corresponding energy source.
- 2. For two of the ways identified:
 - a. discuss the factors/practices that affect the amount of energy the school uses
 - b. conduct investigations to determine the effect that good energy conservation practices will have on the school's energy usage
- 3. Create a proposal that you will present to your teacher and classmates. The proposal should include:
 - a. the various ways your school uses energy;
 - b. the amount of energy being used at present by your school;
 - c. poor energy conservation methods practiced at the school by teachers and students
 - d. 3 reasons why it is important to conserve energy
 - e. the results of your experiment(s) and any recommendations for possible energy conservation. Be sure to include models and/or diagrams of the school grounds that show areas of high energy consumption.

English Language Arts

Read the passage then answer the questions.

Coyote Tries to Steal Honey

(retrieved from https://www.centralriversaea.org/wp-content/uploads/2017/03/E2_ELA-K-5.pdf)

At the beginning of the long days of summer, Coyote had seen Bear slowly walk up to a lonely tree that sat in an open field. The branches of this tree remained bare throughout the warm months. When the sun was high it cast shadows in the shapes of strange insects upon the grass. It was here the bees kept their treasure. They kept it buried in the base of this old hollow tree.

Coyote wore a smile as wide as the sky, for he knew what he had to do to have a taste of the bees' sweet honey. He knew that Bear was able to simply take the honey from the base of the tree. The bees made angry noises, but that did not seem to bother Bear one bit. They swarmed around his big dark body as he sat and ate. When he was finished he shook them off, got up, and walked away. Coyote thought about this all summer. If he could just make a suit that looked like Bear's, he would be able to dip his paw into the base of the tree and out would come sweet golden honey.

It took Coyote all morning to make the suit. He gathered large pieces of bark from the trees to make the arms and legs. He found thin vines to tie the different pieces of the suit together. Then he shredded smaller pieces of bark against a rock and mixed these with dried pine needles so it looked like fur. Right before he went to visit the bees' lonely tree he covered the solid parts of the suit in mud and added the fur. He put it on and walked into the open field. The parts hung loosely on his body. The sun was high in the sky. The shadows danced. Coyote could not see what he looked like, but he imagined his shadow matched that of Bear on the day he took the honey.

As he neared the hollow tree he heard a growing hum. He made a similar noise and he saw one or two bees land on his bear suit. As he drew closer there was more and more buzzing around him. Coyote could tell that the bees were not happy. He did not care one bit. He wanted a taste of the honey so badly. It wasn't until he attempted to put his paw down into the tree's belly that he felt the first sting. It felt like when he had gotten stuck by the thorn bush while he tried to bury his nose in the sweet-smelling flowers. As his paw sank deeper into the tree and the buzz grew louder, Coyote began to feel more and more sharp pains. He yelped and drew his paw away, but the buzzing and pain just grew.

All thoughts of honey faded, and he fled. He was nothing more than a howling spot of darkness moving quickly across the field. A trail of angry bees followed him. The bear suit fell away as he ran. He made his way to the river and dove in. The bees had long stopped chasing

him. The cool water soothed his stings, but Coyote knew for then and forever that honey was not for him.

- 1. Who is the main character in the story?
- 2. What does the use of the word <u>similar</u> in line 20 suggest? Pick **two** choices.
 - a. Coyote was surprised and made an unusual sound.
 - b. The sound Coyote made was meant to calm the bees.
 - c. Coyote made a sound like a bear growling to tease the bees.
 - d. The sound Coyote made blended in with the sound of the bees.
 - e. The sound Coyote made was very loud to scare away the bees.
- 3. Which sentence **best** describes the lesson that Coyote learns in this passage?
 - a. Coyote learns that he does not like the taste of honey after all.
 - b. Coyote learns about the skills bears use to get food in the wild.
 - c. Coyote learns how to make a bear suit out of materials in the forest.
 - d. Coyote learns that he should not try to take things that belong to others.
- 4. This question has two parts. First answer Part A, then answer Part B

Part A

Select the statement that **best** explains how the characters' actions show their relationship in the passage.

- a. The frightened bear stayed away from the coyote.
- b. The bear and coyote worked together to get honey.
- c. The coyote learned how to get honey by watching the bear.
- d. The bear learned how to get honey by watching the coyote.

Part B

Circle **all** of the sentences in the second paragraph that best support your answer to Part A.

Mathematics

Task 1

- Objectives: Collect data using direct observation, experiments, interviews and questionnaires.
 - Identify patterns and trends in data and make inferences from these patterns and trends.

Your class has won the bid to be canteen concessionaire consultants in your school. Design and conduct a survey of the eating habits of children in your school community. Use appropriate graphs and charts to represent your findings. Use the results from your survey to justify three items you would sell in the canteen.

Task 2

Objective: Compute with whole numbers, common and decimal fractions using the four operations.

Find the sum of 3,567 and 8,679.

Task 3

Objective: Compute with whole numbers, common and decimal fractions using the four operations.

Use the digits 1 to 9 at most one time, to fill in the boxes to create two true number sentences.

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Social Studies

Task 1

Objectives:

- Define and use correctly the concepts pollution, waste, waste disposal, recycle, reuse
- Examine multiple sources to identify and explain the causes of water pollution
- Examine different water bodies to identify evidence of pollution and determine the ways in which the pollution affects living things and human activities

Over the past ten years, 15 factories have been established in communities surrounding Kapersville. The residents have been overjoyed at the new opportunities for work and the resulting increase in other economic activities. However, one group of individuals do not share this excitement. The farmers in Kapersville have begun to notice that their crops are not producing as they usually do. The fruit trees are bearing smaller fruit and the rivers no longer have the abundance of fish that they used to have. Working in groups of 5,

- i. Define and describe a possible reason for the farmers' experience.
- ii. Propose an alternative to this problem that would be beneficial to all members of the community and explain why this alternative would be better.
- iii. Using technological tools of your choice, create a presentation that you would make to the members of the community in a town hall meeting.

Task 2

Objectives:

- Define and use correctly the following concepts: hero, heroine, nation, nation builder, unsung heroes
- Identify the national heroes/ heroine by names and pictures
- Gather information from a variety of sources and compile basic biographical information about each national hero/heroine
- Appreciate the contributions of our National heroes and heroine to nation building

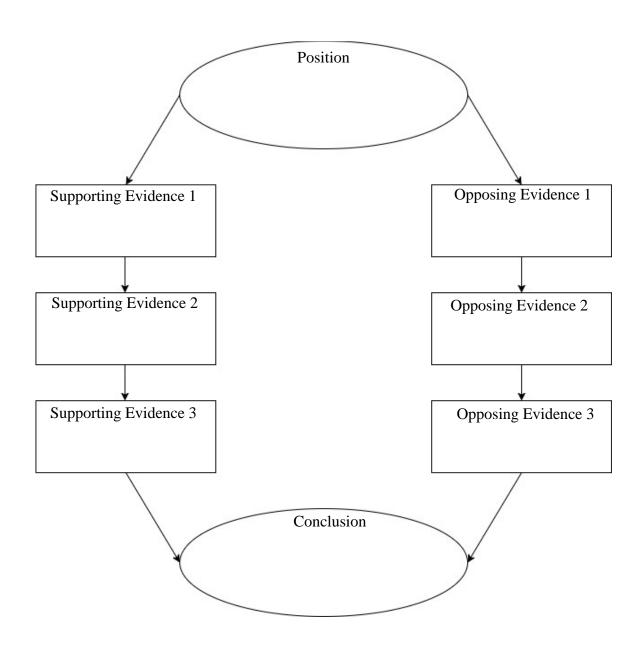
Name 4 National Heroes and the role they played in our country's history.

Task 3

Objectives:

- Develop strategies that can be used to preserve and promote Caribbean culture among Caribbean people
- Demonstrate an appreciation for the Jamaican and Caribbean culture

Your great-grandmother thinks that Jamaican culture is dying. Do you agree? Working in pairs, complete the persuasion web given. Be sure to represent as many ideas as you can.



How are meaningful assessment tasks developed?

1.	Identify the objectives to be assessed.
2.	What are the concepts and skills that students should master in order to achieve the objective?
3.	List the evidence that will indicate students' understanding of the objectives identified.
4.	Brainstorm possible scenarios/contexts that will allow students to demonstrate these skills and evidence.
5.	Use task formats/item types to build questions to engage students with the scenario.
6.	Consider the range of possible student responses to the questions.
7.	Share, Review, and Revise

Going Beyond MCQs

		Most Constrained	ined					Least Constrained
Les	ss mplex	Multiple Choice	Selection/ Identification	Reordering/ Rearrangement	Substitution/ Correction	Completion	Construction	Presentation/ Portfolio
		True/False	Multiple true/false	Matching	Interlinear	Single Numerical Constructed	Open-Ended Multiple Choice	Project
		Alternate Choice	Yes/No with explanation	Categorizing	Sore-Finger	Short Answer and Sentence Completion	Figural Constructed Response	Demonstration, Experiment, Performance
		Conventional MCQ	Multiple answer	Ranking and Sequencing	Ranking and sequencing	Cloze Procedure	Concept Map	Discussion, Interview
	mplex	MCQ with new media distractors	Complex MCQ	Assembling Proof	Bug/Fault Correction	Matrix Completion	Essay	Diagnosis, Teaching

(Adapted from http://pages.uoregon.edu/kscalise/taxonomy/taxonomy.html)

Developing an Assessment Plan

Example of an Assessment Plan

Grade 5 Term 1 Unit 3

Theme: Caribbean Culture

Focus Question:

1. How has the culture of the ethnic groups in the region influenced the development of Caribbean culture?

Objectives: Students should be able to

- 1. Define concepts/terms and use correctly: culture, heritage, Caribbean identity, cultural diversity.
- 2. Outline major historical events that are associated with the arrival of the various ethnic groups
- 3. Categorise different aspects of Jamaican and Caribbean culture (dance, music, language, dress, religion, food) according to ethnic groups
- 4. Identify similarities and differences in the culture of the Caribbean people
- 5. Examine various sources and draw conclusions about the benefits of aspects of Caribbean culture to Jamaica and the rest of the region
- 6. Propose ways that can be used to preserve and promote Caribbean culture among Caribbean people
- 7. Gather information from various sources on the culture (music, food, language, dance) of a selected Spanish (Cuba) and French (Haiti) island and then compare the culture of these islands with Jamaican culture
- 8. Develop an appreciation of Jamaican culture.
- 9. Compile and arrange alphabetically a list of sources including, author, title, type of source

	Task	DOK Level	Administration	Weight
For	mative			
	Students will define the terms culture, heritage, Caribbean identity, and cultural diversity.	1	In class Individually/Group	-
2.	Students will compare, and contrast Caribbean islands based on aspects of culture. Reference list should be included.	2	Homework Individual	-
3.	Students will describe major historical events associated with the arrival of various ethnic groups and explain how they influenced aspects of culture for selected Caribbean islands. They will present their information orally. Reference list along with reflections on the credibility of each source should be submitted for feedback	1-2	In class Group	-
4.	Students will select an aspect of Caribbean culture and propose ways to preserve and promote the aspect among various groups of persons. Proposal should include a list of references.	3	In and out of class Group	-
Sun	nmative			
1.	Role Plays Students will re-enact the arrival of various ethnic groups to the Caribbean. The re-enactment should show their influence on present day culture.	2	In class Group	10%
2.	 Class Tests Arrival of the ethnic groups Aspects of Jamaican culture Preservation of culture 	1-3	In class Individual	40%
3.	Performance Task Itinerary for Caribbean travel	4	Out of Class Individual	20%
4.	Debate Students will debate various moots based on the influence of the arrival of various ethnic groups on Caribbean culture.	3	In class Group	15%
5.	Worksheets (3)	2	In class Individual	15%

How do I plan how to assess a unit?

- Examine the curriculum unit
- What are the concepts and skills that students should master in order to achieve the focus question/attainment target stated?
- How do the objectives support students' acquisition of these concepts and skills?
- Are there any objectives that can be assessed together?
- What will the evidence of achievement of these objectives be?
- In what ways can you assess this unit?
- What item types do I want to use?
- Use the given template to develop an assessment plan for the unit
 - Ensure that all the 4Cs and DOK levels are represented across the unit

NSC Objectives

Language Arts

Grade 5 Term 2 Unit 2

Duration: 2 weeks

Theme: Institutions and Political Decisions

Focus Question: What are parish councils and how does this system of governance operate

in Jamaica?'

Objectives:

1. Take notes from presentations

- 2. Practise effective listening skills
- 3. Use various expressions and vocabulary to suit purpose and audience
- 4. Listen critically to speech delivered and respond accordingly
- 5. Demonstrate respect for the opinions of others during discussions and other collaborative activities
- 6. Determine multiple meanings of words by applying knowledge of context clues
- 7. Learn and use compound words in order to extend vocabulary
- 8. Find known clusters, syllables and smaller words in bigger words for the purposes of encoding and decoding
- 9. Use knowledge of synonyms and antonyms to construct meaning
- 10. Reflect on how the strategies employed for decoding and encoding help them to improve as readers and writers
- 11. Use the QAR strategy to locate information in the book and in their heads.
- 12. Identify and use information at the literal, inferential and critical levels
- 13. Do self-selected reading of texts representing different genres and make connections to self, other texts and the world
- 14. Establish cause and effect relationships
- 15. Identify problem and solution text structure

- 16. Apply appropriate elements of fluency (accuracy, speed and prosody) during reading to aid comprehension
- 17. Independently select and read grade level texts for varying purposes
- 18. Skim and scan for information using basic text features (table of contents, glossary, index)
- 19. Use headings, titles, subheadings to locate information in texts
- 20. Examine graphs, charts, tables to extract information
- 21. Use dictionary and encyclopaedia to locate information
- 22. Formulate questions and construct basic research plan
- 23. Evaluate basic research plans in order to provide feedback
- 24. Express appreciation for the contribution of their peers during collaborative
- 25. activities
- 26. Use online sources effectively to locate information
- 27. Generate and organize ideas for writing using a variety of stimuli
- 28. Contribute to and use simple checklists to revise and review drafts
- 29. Write in different forms producing more complex narratives, poems and reports and transactional pieces securing cohesiveness
- 30. Use content area vocabulary effectively in letters and reports
- 31. Use connectives to link sentences, ideas and paragraphs
- 32. Select pieces of writing that reflect their growth and competence as writers and explain the reason for their choices

Social Studies

Grade 5 Term 2 Unit 3

Duration: 2 weeks

Theme: Living Together

Focus Question: What are parish councils and how does this system of governance operate

in Jamaica?

Objectives:

1. Define and use the following terms correctly: mayor, councillor, regulations, local government, parish council, municipal, parochial

- 2. Identify the goods that are produced in different parishes and explain how goods that are not produced in the parish are obtained
- 3. Examine an organizational chart of a parish council describe and make deductions about members and relationships within the Council
- 4. Describe the functions/services of the parish council and draw conclusions about its importance to governing of the country
- 5. State the importance of property taxes to the services carried out by the parish council
- 6. Gather information about how parish council members are elected and discuss the election process
- 7. Describe how decisions are made by the parish council, cite evidence to show the impact of these on individuals and communities and assess the effectiveness of the decisions
- 8. Be aware of roles and responsibilities of leaders and activities at the parish level
- 9. Participate in discussions to address issues at the school, community and parish levels

Science

Grade 6 Term 2 Unit 2

Duration: 2 weeks

Theme: Human Body Systems

Focus Question: What are some of the systems in my body and how do they work?

Objectives:

1. Explain what is meant by the term 'system'

- 2. Identify the organ systems and state their functions in humans
- 3. Recognise the integration of the different organ systems in carrying out life processes
- 4. Identify selected organs in the human digestive system (mouth, oesophagus, stomach, small intestine, large intestine) and outline the path food travels from mouth to anus
- 5. Describe how the bones, joints and muscles work together to produce movement in humans
- 6. Identify the excretory organs of humans (kidneys, lungs and skin) and state their role in excretion
- 7. Show curiosity in exploring their own body and questioning about the structures or functions of the body.
- 8. Share their views confidently

Mathematics

Grade 4 Term 2 Unit 2

Strand: Measurement

Duration: 2 weeks

Focus Question: What is the difference between length and area and how are they

measured?

Objectives:

1. Compute the perimeter of regular and irregular polygon using units of measurement for length.

- 2. Find the area of various objects and figures.
- 3. Estimate and read distances recorded in kilometres on a road map
- 4. Estimate and read distances recorded in kilometres on a map
- 5. Demonstrate an understanding of the difference between units of length and units of area.
- 6. Compare and contrast units of length and units of area.
- 7. Use unit squares or a centimetre grid to cover regions so as to determine their area.
- 8. Use a square grid (1 cm2 squares) to find the area of any shape.

Day Two: Rubrics

Type of Rubric	Definition	Advantages	Disadvantages				
1100110	One or Several Judgements						
Analytic	Each criterion (dimension, trait) is evaluated separately	 Gives diagnostic information to the teacher Gives formative feedback to students Easier to link to instruction than holistic rubrics Good for formative assessment; adaptable for summative assessment (if you need an overall score for grading, you can combine the scores 	 Takes more time to score than holistic rubrics. Takes more time to achieve inter-rater reliability than with holistic rubrics. 				
Holistic	All criteria (dimensions, traits) are evaluated simultaneously	 Scoring is faster than with analytic rubrics. Requires less time to achieve inter-rater reliability. Good for summative assessment. Description of Performance	 Single overall score does not communicate information about what to do to improve. Not good for formative assessment. 				
General	Description of work gives characteristics that apply to a whole family of tasks (e.g. writing, problem solving)	 Can share with students, explicitly linking assessment to instruction Reuse same rubrics for several tasks or assignments. Supports learning by helping students see "good work" as bigger than one task Supports student self-evaluation Students can help construct general rubrics 	 Lower reliability at first than task-specific rubrics Requires practice to apply well 				
Task Specific	Description of work refers to the specific content of a particular task (e.g. gives an answer, specifies a conclusion)	 Teachers sometimes say using these makes scoring 'easier'. Requires less time to achieve inter-rater reliability. 	 Cannot be shared with students (would give away answers) Need to write new rubrics for each task For open-ended tasks, good answers not listed in rubrics may be evaluated poorly 				

Desired Characteristics of Criteria for Classroom Rubrics

Characteristics	Explanation
The criteria are	
Appropriate	Each criterion represents an aspect of an instructional goal or objective that students are intended to learn.
Definable	Each criterion has a clear, agreed-upon meaning that both students and teachers understand.
Observable	Each criterion describes a quality in the performance that can be perceived (seen or heard, usually) by someone other than the person performing.
Distinct from one another	Each criterion identifies a separate aspect of the learning outcomes the performance is intended to assess.
• Complete	All criteria together describe the whole of the learning outcomes the performance is intended to assess.
Able to support descriptions along a continuum of quality	Each criterion can be described over a range of performance levels

Desired Characteristics of Descriptions of Levels for Classroom Rubrics

Characteristics	Explanation
The descriptions of levels of performance are	
Descriptive	Performance is described in terms of what is observed in the work
• Clear	Both students and teachers understand what the descriptions mean.
Cover the whole range of performance	Performance is described from one extreme of the continuum of quality to another for each criterion.
Distinguish among levels	Performance descriptions are different enough from level to level that work van be categorized unambiguously. It should be possible to math examples of work to performance descriptions at each level.
 Centre the target performance (acceptable, mastery, passing) at the appropriate level 	The description of performance at the level expected by the instructional goal/objective is placed at the intended level on the rubric.
Feature parallel descriptions from level to level	Performance descriptions at each level of the continuum for a given objective describe different quality levels for the same aspects of work.

Mathematics

Grade 5 Term 1 Unit 4

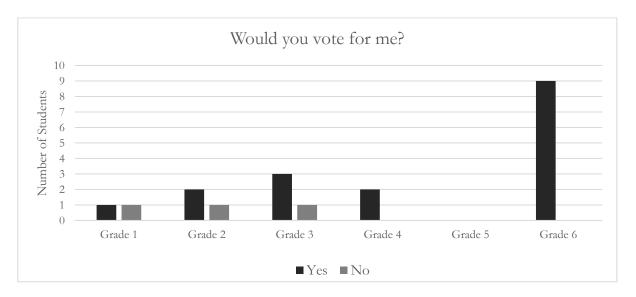
Strand: Statistics and Probability

- **Objectives**: 1. Represent data using bar graphs, double bar graphs, pictographs, pie chart and line graphs.
 - 2. Report on the mathematical content and interpretation of data.
 - 3. Discover that a sample may be too small and why.
 - 4. Develop the concept of fair and bias in sampling.
 - 5. Use a given sample to make claims about a larger population.

500 students attend Marl's Vale Primary. The table below shows the number of students in each grade.

Grade	1	2	3	4	5	6	Total
Number							
of	70	100	70	105	85	70	500
Students							

Maria conducted a survey to determine how likely it was for her to win if she decided to run for head girl. She asked 20 students if they would vote for her. The data she collected is shown below:



Maria was pleased with the results. She submitted her nomination the next day. On the day of the elections, she got 17 votes. She got the number of votes she predicted but did not win. She was very disappointed. She has asked you to explain to her what has happened. Using the information in the table and graph above, explain to Maria the meaning of her prediction and what you think she should have done instead. Use graphs, numbers and words to support your explanation.

Social Studies

Grade 5 Term 1 Unit 3

Theme: Caribbean Culture

- **Objectives**: 1. Gather information from various sources on the culture (music, food, language, dance) of a selected Spanish (Cuba) and French (Haiti) island and then compare the culture of these islands with Jamaican culture
 - 2. Compile and arrange alphabetically a list of sources including, author, title, type of source
 - 3. Categorise different aspects of Jamaican and Caribbean culture (dance, music, language, dress, religion, food) according to ethnic groups
 - 4. Identify similarities and differences in the culture of the Caribbean people

Assessment Task: Performance Task

Your Facebook friend, François, is from Haiti. He and his family are planning to visit Jamaica for the summer holidays. He is very excited to get to learn more about Jamaican culture. Using a variety of media, plan and present a one-week itinerary for your friend. The itinerary should include the following:

- A variety of local destinations, a brief history of each location and the reason for choosing
- A daily lunch menu which reflects authentic Jamaican cuisine. Include one original dish that you have created that represents Jamaica. A brief description of each dish along with its origin and ingredients should be included.
- A playlist of 5 songs that you believe represent the evolution of Jamaican music along with the justification of your selection. Be sure to include the name of the artist, time of the song's release as well as any other relevant information.
- A short video demonstrating one authentic dance move relevant to the time of the release of each song selected for the playlist.

Throughout the itinerary, be sure to compare and contrast each location/dish/song listed with those of Haitian culture. A bibliography of sources should be included.

Science Grade 6 Term 2 Unit 1 **Materials - Properties and Uses**

- **Objectives**: 1. Examine a selection of materials/objects to determine the transparency, absorbency, strength, magnetic property, and heat conductivity of materials in everyday use.
 - 2. List some properties of materials that determine the choice of objects for specific purpose in everyday life.
 - 3. Generate predictions of material properties based on observations and experience.
 - 4. Be willing to change their minds if what they find is not what they had believed

Assessment Task: Planning Fair Tests

You are presented with two different brands of paper napkins. Plan and design a fair test to determine which is better. Ensure to write down all steps (the procedure) involved in conducting the experiment. Also include a hypothesis, aim, and all instruments needed.

Language Arts

Grade 4 Term 2 Unit 7

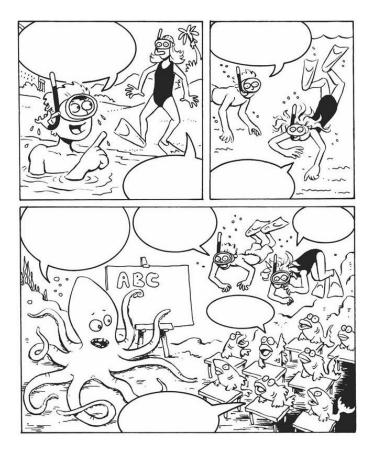
Focus Question: How do we communicate information about our Jamaican landscape?

Objectives: 1. Recognise and use collective nouns

- 2. Identify and use prepositions of time
- 3. Identify and use adverbs of time
- 4. Use commas to separate phrases within sentences
- 5. Willingly participate in group discussion and activities during reading activities
- 6. Use picture prompts to compose simple narratives

Assessment Task: Composition Task 1

Write a story which includes the scenes in the comic shown below. Within your story, create a dialogue that would be illustrated by these frames. The first draft of your story will be reviewed by one of your classmates. Use their feedback to refine your draft and create your final piece. Submit both at the end of the session.



Peer Review Checklist

Criteria	Yes	No
The story has a title.		
The characters are easily identified.		
The beginning, middle and end of the story are clear.		
The transition between the parts of the story make sense.		
A variety of words and sentence types are used.		
Words are spelt correctly.		
Punctuation is used correctly.		