

Background Information for Teachers

Information on Learning Journeys Organisation

Name of organisation	<ul style="list-style-type: none">• National Parks Board (NParks)
When was the organisation founded?	<ul style="list-style-type: none">• 1990
Learning Objectives stated by the organisation	<ul style="list-style-type: none">• Combining the visual delights and rich biodiversity of our parks, gardens & nature reserve with thoughtfully planned recreational activities, NParks facilitates visitors' communion with Nature
What is the purpose of the organisation?	<ul style="list-style-type: none">• NParks conserves, creates, sustains and enhances the green infrastructure of our City in a Garden.• Responsible for providing and enhancing the greenery of Singapore• NParks also monitors and co-ordinates measures to ensure the health of Singapore's bio-diversity
What is the mission and vision of the organisation?	<ul style="list-style-type: none">• Mission: To create the best living environment through excellent greenery and recreation, in partnership with the community.• Vision: Let's make Singapore our Garden
How is the organisation so important to Singapore?	<ul style="list-style-type: none">• The organisation is important as National Parks Board (NParks) is responsible for providing and enhancing the greenery of the City in the Garden.• Beyond green infrastructure, NParks is committed to enhancing the quality of life through creating memorable recreational experiences and lifestyles.• NParks manages over 300 parks and 4 nature reserves. Adding to this is the extensive streetscape, or roadside greenery, that forms the backbone of our City in a Garden.• An island-wide Park Connector Network is also being developed to link major parks and residential areas.• As Singapore's scientific authority on nature conservation, NParks monitors and coordinates measures to ensure the health of Singapore's biodiversity.• This supports the overall thrust of our urban biodiversity conservation model, which aims to conserve representative eco-systems in land-scarce Singapore for future generations.• NParks is also the lead agency in the efforts to continually upgrade the Landscape Industry in Singapore.• It works closely with industry partners to

promote good work practices and create a thriving, innovative and professional industry that will support Singapore's aspirations of being a City in a Garden.

What are the NE messages / NE learning journey objectives that can be highlighted through this learning journey?

NE Messages:-

- Cultivate a sense of ownership for the environment where Singapore is our homeland, this is where we belong.
- Cultivate a sense of nationalism and pride in the students where we have confidence in our future.

Learning Objectives:-

- Provide students with relevant knowledge on the historical and heritage aspects of Singapore.
- Instil a sense of connection on how changes from the past influence our present.
- Understanding Singapore: Its constraints, Challenges and Opportunities that with the ever changing landscape, our heritage might disappear if no one spreads word of it.

In what ways can the learning journey be relevant to students? (This can related to both personal experiences and curriculum matters)

The visit can be tied with:
Secondary 1-4 History & Geography

Theme:	Learning Journeys
Name of Activity:	History and Nature Heritage Trail
Venue/s:	Labrador Nature Reserve
Duration:	2 – 2.5 hours
Level/s:	Secondary 1-4
Pre-requisite/s	To have completed the learning journeys to Fort Canning Park and Kent Ridge Park

Introduction:

During the learning journey, students will learn about the Singapore's historical maritime and war past. Students will get to learn about time, change and continuity through Labrador Nature Reserve which has transformed from a thick coastal forest and mangroves to what it is today. With rich heritage the nature reserve has to offer, students will get to interact with the coastal cliff vegetation and get to enhance their knowledge and interests of the diverse flora and fauna found in Singapore. At the same time, they will also learn about the importance of conserving our natural heritage and develop a sense of commitment and ownership of the parks and greenery.

Objectives of this Learning Journey:

1. Students will have fun as they walk and appreciate and learn about Singapore's history and natural heritage
2. Students will have first-hand field experience of the various historical events that has occurred in Labrador Nature Reserve and how things were in the past and how they change and develop over time.
3. Students will get to enhance their knowledge and interests in Singapore's coastal cliff vegetation and the various species of flora and fauna that exist in Singapore
4. Students will learn about the importance of conserving our natural heritage, develop a sense of commitment and ownership of the parks and green, and to protect our home and rich history

National Education Message:

- The importance of national defence where Singapore is our homeland and we must ourselves defend Singapore as no one else will defend her for us.
- This is tied in with the need to protect the natural heritage of Singapore as well because it will be lost if we do not protect them.

Approaches

Programmes/Activities:

- The students will go on a learning journey to Labrador Nature Reserve.
- Guides assisted by teachers from the school, will lead and direct students in making various observations on the natural heritage and the historical events that have occurred here at Labrador.
- This will allow students to learn more about the coastal cliff vegetation and history of Singapore to meet the above learning objectives.
- Students will complete worksheets and take primary data (note taking and photographing) of all information, which is required for the completion of an assignment or project.

Deployment:

- Guides will do a live commentary during the visit to Labrador Nature Reserve.
- School teachers are deployed to assist and also to help monitor and discipline students on site.

Assessment and Review:

- Students will complete the worksheets and activities individually or as a group.
- Students will be debriefed after the learning journey.
- As a post-activity, students will complete a reflection on their learning journey.
- Students will complete a feedback form.
- Students will complete an assignment or project based on their learning journey.

Lesson	Outline of Lesson	Period/s	Resources	Remarks
Lesson Structure: Pre-Lesson Journey				
Lesson 1 Introduction	<p><u>Pre-requisite:</u></p> <ul style="list-style-type: none"> Students would have covered the topic on history of Singapore in their History syllabus and Natural Vegetation in their Geography syllabus Students are to recap on what they have learnt before on World War II and its impact on Singapore and natural vegetation. <p><u>Briefing on Learning Journey to Labrador Nature Reserve</u></p> <ul style="list-style-type: none"> Students are given a briefing on the scenario and learning journey objective. 	1 (30mins)		<ul style="list-style-type: none"> To enable students to draw on their prior knowledge of Natural Vegetation and World War II. To allow students to know more about NParks and what they do. To prepare students and to provide information on the park that they will be visiting
Development	<p><u>Exploration of the features in Labrador Nature Reserve</u></p> <ul style="list-style-type: none"> Students are divided into pairs/groups to explore and research on Labrador Nature Reserve. <p><u>Discussion Question</u></p> <ul style="list-style-type: none"> Each pair/group will work on the question and pen down their answers in the worksheet provided. 	1 (30 mins)	Annex 1a Annex 1b	<ul style="list-style-type: none"> To enable students to have prior knowledge on Labrador Nature Reserve before going on their learning journey. To motivate the students to learn and have a sense of ownership in their learning. To incorporate the elements of cooperative and collaborative learning.
Closure	<p><u>Reflections</u></p> <ul style="list-style-type: none"> Students to share their thoughts on Labrador Nature Reserve based on what they have read in Annex 1b. 	15 mins		<ul style="list-style-type: none"> To sum up students' learning on Labrador Nature Reserve.
Lesson Structure: During Learning Journey				
Lesson 2 Introduction	<p><u>Labrador Nature Reserve</u></p> <ul style="list-style-type: none"> Students to complete the questions in the "Twin Fortress Challenge" found in Annex 2 before setting 	15 mins	Annex 2	<ul style="list-style-type: none"> To enable that students know more about Labrador and its role as one of the twin

	off to explore the nature reserve.			fortresses in protecting the western part of Singapore.
Development	<p><u>Breakup Session</u></p> <ul style="list-style-type: none"> • Students are divided into different groups with the guides to explore the different features and areas of the park. • Teachers are to ensure that students ask the guides the relevant questions, which are found in the worksheets. • Some of the information can be found on the display boards in Labrador Nature Reserve. 	4 periods (120 mins)		<ul style="list-style-type: none"> • To enable students to explore the nature reserve areas and features
Closure	<p><u>Reflections</u></p> <ul style="list-style-type: none"> • Teachers to get students to share their thoughts on Labrador Nature Reserve. 			<ul style="list-style-type: none"> • To sum up students' learning at Labrador Nature Reserve. • To enable students to reflect on the achievements of NParks and their possible involvement in making the nature reserve a better place. • To allow students to evaluate how their group works.
Lesson Structure: Post Learning Journey				
Lesson 3 Introduction	<p><u>After the visit</u></p> <ul style="list-style-type: none"> • Students are to form into groups of 4-5 and discuss and reflect on what they have learnt. • Discuss this using their post-visit reflection found in Annex 7. 	15 mins	Annex 7 (Post-visit reflection)	<ul style="list-style-type: none"> • To allow students to sum up what they have learnt.
Development	<p><u>Task</u></p> <ul style="list-style-type: none"> • Each student OR each group is read the task and submit a brochure which focuses on the interesting 	1 period (30 mins)	Annex 8 (Task) Annex 9 (Template)	<ul style="list-style-type: none"> • To consolidate students' learning through the completion of the allocated

	<p>aspects of Labrador Nature Reserve and the importance of preserving the nature reserve</p> <ul style="list-style-type: none"> Guidelines of the brochure submission can be found in Annex 9. 			task.
Closure	<p><u>Class Activity</u></p> <ul style="list-style-type: none"> Teachers are to go through the worksheet answers with students. 	15 mins	Annex 10 (Answers)	<ul style="list-style-type: none"> To sum up students' learning.

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Annex 1a

British choose this location to build their fort because it overlooks the sea and could protect the entrance to the harbours of Singapore. Steep slopes ran down either side of the hill to the seas in front and to mangrove swamps behind it.

Annex 2

1. Fort Siloso
2. Pulau Blakang Mati, Sentosa
3. Both to work in unison to guard the western entrance to Keppel Harbour
4. Eastern entrance
5. A 'friendly safe channel'

Annex 3

Dragon Teeth Gate

- Used to serve as the gateway to Keppel Harbour's western entrance, acting as a navigational guide to sailors travelling through the narrow channel.

Red Beacon

- 240 metres

Intricate Defence System

- Machine Gun Post: Built to guard 12-pounder guns on the hill right above
- Quick firing gun: Counter the torpedo boats
- Tunnels: To allow access to bunkers and stores
- Bunkers: Shelter to protect soldiers from artillery above ground
- Casemate: Served as an ammunition store for guns and was also shelter for gunners and infantry
- 1892 Storeroom: Store the ammunition of the 6-pounder Quick firing gun

Did you know?

- Long Beach

Remnants of the Old Fort

- Portcullis, protected, infantry

Annex 5

- Succession
- Habitat
- trees, shrubs, planters and climbers

Sea Apple Tree

- Crown: dense with massive widespread branches
- Flowers: White
- Leaves: Thick and leathery
- Fruits: Oblong and fleshy

Sea Almond Tree

- Crown: spreading pagoda-shaped

- Flowers: greenish-white
- Leaves: arranged in rosettes
- Fruits: oblong, flattened and thick

Interesting Coast Trees

- Fish Poison Tree contains saponin that fishermen use to stun fish

Other Fascinating Plants

- Sea Almond Tree
- Sea Grape Tree
- Screw Pine Root

Plantain Squirrel

Describe the features e.g. colour

- Greyish brown
- A chestnut belly
- A black-and-white line between the two
- Sharp claws
- A long counterbalancing tail

Where is the plantain squirrel usually seen?

- Forage mostly in trees and undergrowth
- Rarely come to the ground

What does it eat?

- Eat mainly fruits and nuts
- Also snacks on insects and other titbits that they come across including birds' eggs
- Have been known to break open ant plants to eat the ant larvae

One amazing fact about the plantain squirrel.

- They have good eyesight
- Very quiet