

TL Unit Plan

(Several lesson plans are included in one TL unit plan.)

Subject/Grade	Science/Grade 4	
Unit Title	Unit 2. Living things สิ่งมีชีวิต/ Chapter 1. Living things around สิ่งมีชีวิตรอบตัว	
Content Objectives <i>(Content objectives for English subject are the functions or purposes of language objectives below.)</i>	<p>At the end of this unit students will be able to:</p> <ol style="list-style-type: none"> 1. classify living things into plants, animals, and non-animals/plants by using the criteria of movement and food generation. 2. classify animals into vertebrates and invertebrates by using the criteria of backbones. 3. describe the characteristics of five groups of vertebrates such as fish, amphibians, reptiles, birds, and mammals with examples of each animal group. 4. classify plants into flowering plants and non-flowering plants by using the criteria of flowering. 	
Language Objectives <i>(Language objectives are the kind of language skills by which students can show that they will have achieved the content objectives.)</i>	<p>At the end of this unit students will be able to use/do the following in speaking, listening, reading, and writing in both School and Home languages:</p>	
	Lesson 1	academic terms such as, grouping, classify, classification criteria, living things, movement (mobile/immobile), food generation, plants, animals, non-animals/plants
	2	spine (backbone), vertebrates, invertebrates, corals, skeleton, cylindrical, tentacles, conserve,

	3	fish, amphibians, reptiles, birds, mammals
	4	flowering plant, non-flowering plant, criteria of flowering,
	5	
	6	
<p>TL Final Project/ Product</p> <p><i>(With this final project/product students will be able to show what they will have learned from the whole unit.)</i></p>	<p>Bilingual booklet making in Thai and home language</p> <ul style="list-style-type: none"> - Each student chooses 10 different living things from the bottom of each category on page 73. - describe each living thing with categorization criteria (self movement, self food generation, vertebrate, flowering/non-flowering plant, etc.) and other characteristics (living in the water, on land, can fly, having 4 legs, fur, feather, wings, laying eggs, etc) as detail as possible on each page with illustration. - For example of a page: I can move myself. But I cannot make food by myself. I have a backbone. I live both in the water and on land. I have four legs. I can swim in the water and jump on land with these four legs. I lay many eggs. The eggs become tadpoles and later become like me. Who am I? I am a frog. 	
<p>Connecting Questions</p> <p>(These questions connect the content/language of the new unit with</p>	<p>Lesson 1</p>	<p>What are some examples of living things around us? Which two living things of the three are more similar and why do you think so?</p> <ol style="list-style-type: none"> 1) sunflower, tiger, shrimp, 2) mushroom, fern, bacteria

students' experiences and existing knowledge.)	2	Can you touch the middle part of your friend's back? What can you feel? It is called spine. Some animals have a spine and other animals don't.				
	3	What animals can you observe in our community? What differences can you think of between fish and frog? What are some differences between chicken and dog?				
	4	What kind of flower do they like the most? Can you name some plants that don't have flowers?				
	5	What have we learned so far in this unit?				
	6					
	TL Strategies/ Activities	STA: Static Top Alone (individual activities using one language) STT: Static Top Together (group activities using one language) SPA: Spinning Top Alone (individual activities using more than one language) SPT: Spinning Top Together (group activities using more than one language)		STA	STT	SPA
Lesson 1		-Group work: Sorting picture cards of living things Categorize them according to two categories such as movement and food generation				v

		<p>-Reading on mushroom and mold (p. 50-51) Preview: brainstorming of students' knowledge and find out what they want to know more View: Choral reading with clarification among students K-W-L Review: In group find similarities and differences between mushroom and mold and show these in venn diagram (handout a worksheet of venn diagram)</p>		v		v
	2	<p>-Dissecting a shrimp and a fish -Compare the difference in terms of backbone -Reading on Coral (p. 55) Preview: find out what students already know and want to know about coral View: paired reading Review: State the characteristics of coral on star diagram (handout) -Present their work</p>		v v		v v v
	3	<p>-Reading on 5 groups of vertebrates (p.58-61) Preview: whole class View: paired reading Review: State the characteristics of 5 groups of vertebrates on a given table (handout) together with your partner. -Present their work</p>		v v v v		v v

	4	<ul style="list-style-type: none"> - Collect various kinds of plants and find out the similarities and differences between flowering plants and non-flowering plants - Write findings in a graphic organizer on plants (handout) - Present before class 		v		v
	5	<ul style="list-style-type: none"> - Reading pages 69-72 within the home language group Paired reading - Fill the flow chart (handout) 		v		v
	6	-Final project: booklet making	v		v	
Materials/ Environment	Lesson 1	Picture cards for living things KWL chart Venn Diagram worksheet				
	2	fish and shrimp, knife, tray, KWL chart Star Diagram				
	3	KWL chart				

		Table sheet
	4	Various plants available around the school (both flowering plants and non-flowering plants)
	5	Flow chart
	6	Enough A4 sheets for booklet making Color pencils Staplers
Assessment	Graphic organizer sheets Final project: accuracy and amount of information for each living thing	