## TL Unit Plan

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

| Subject/Grade | Math/ grade4 |  |  |
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| Unit Title | Unit 4. Addition, Subtraction, Multiplication, Division |  |  |
| Content Objectives <br> (Content objectives for English subject are the functions or purposes of language objectives below.) | By the end of this unit, students will be able to: <br> 1. find the results of addition, subtraction, multiplication, and division problems that emphasize the sequence of calculations with and without brackets and realize the validity of the answers. <br> 2. analyze and show how to find answers to the combination of addition, subtraction, multiplication, and division problems with 2 to 3 steps, while recognizing the reasonableness of the answer. <br> 3. Create addition, subtraction, multiplication, and division problems with 2 steps. <br> 4. Solve the problem of the average. |  |  |
| Language Objectives <br> (Language objectives are the kind of language skills by which students can show that they will have achieved the content objectives.) | By 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: |  |  |
|  | Lesson 1 |  | addition, subtraction, multiplication, and division with bracket |
|  | 2 |  | addition, subtraction, multiplication, and division without bracket |


|  | 3 | - addition, subtraction, multiplication, and division with and without bracket |
| :---: | :---: | :---: |
|  | 4 | - New vocabularies from the applied problems |
|  | 5 |  |
|  | 6 | - Average value |
| TL Final Project/ <br> Product <br> (With this final project/product students will be able to show what they will have learned from the whole unit.) | Solving problems to make a certain number using addition, subtraction, multiplication, and division with a bracket. <br> 1. Each student chooses 5 different numbers in a row from 1 to 20. <br> 2. Make a symbolic sentence using all of addition, subtraction, multiplication, and division with a bracket or two to make each chosen number. <br> For example) $10=320 \% 32 \times(11-1)+100-190$ <br> 3 . Find out the average value of the five different numbers. |  |
| Connecting <br> Questions <br> (These questions connect the content/language of the new unit with students' | Lesson 1 | Briefly review what they have learned till unit 3 regarding addition, subtraction, multiplication, and division. |
|  | 2 | Review lesson 1 |


| experiences and existing knowledge.) | 3 | Review lesson 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4 | Review lesson 3 |  |  |  |  |
|  | 5 | Review lesson 4 |  |  |  |  |
|  | 6 | If it rained 30 ml on Monday, 25 ml on Tuesday, 35 ml on Wednesday, 45 ml on Thursday, 35 ml on Friday, 30 on Saturday, and 35 on Sunday last week, how do we know how much it rained normally per day? |  |  |  |  |
| TL Strategies/ Activities | STA: Static Top Alone (individual activities using one language) <br> STT: Static Top Together (group activities using one language) <br> SPA: Spinning Top Alone (individual activities using more than one language) <br> SPT: Spinning Top Together (group activities using more than one language) |  | STA | STT | SPA | SPT |
|  | Lesson $1$ | Addition, subtraction, multiplication, and division with bracket with 2 steps (p. 165-170) <br> - Model problem solving by teacher <br> - Group/Pair work <br> - Individual work | V | V |  | V |
|  | 2 | Addition, subtraction, multiplication, and division without bracket with 2 steps (p. 171-184) |  |  |  |  |


|  |  | - Model problem solving by teacher <br> - Group/Pair work <br> - Individual work | V | V |  | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 | Addition, subtraction, multiplication, and division both with and without bracket with 3 steps (p. 185-190) <br> - Model problem solving by teacher <br> - Group/Pair work: oral collaboration while solving problems <br> - Individual work | V | V |  | V |
|  | 4 | Solving applied problem of Addition, subtraction, multiplication, and division (p. 191-198) <br> - Model problem solving by teacher <br> - Group/Pair work: oral collaboration while solving problems using both Thai and home language <br> - Individual work | V | V |  | V |
|  | 5 | Making applied problem of Addition, subtraction, multiplication, and division (p. 199-205) <br> - Model problem solving by teacher <br> - Group/Pair work: collaboration while solving problems using both Thai and home language/ making the problem in both Thai and home language <br> - Individual work: making the problem in both Thai and home language | V | V | V | V |


|  | 6 | Average value (p. 206-215) <br> - Model problem solving by teacher <br> - Group/Pair work for: <br> 1) solving problems using both Thai and home language <br> 2) making a problem in both Thai and home language <br> - Individual work for <br> 1) solving Thai problem <br> 2) making a problem in both Thai and home language | V | V | V | V |
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| Materials/ Environment | Lesson <br> 1 | A3 paper for each group/pair Notebook for each student |  |  |  |  |
|  | 2 | A3 paper for each group/pair Notebook for each student |  |  |  |  |
|  | 3 | A3 paper for each group/pair Notebook for each student |  |  |  |  |
|  | 4 | A3 paper for each group/pair Notebook for each student |  |  |  |  |
|  | 5 | A3 paper for each group/pair Notebook for each student |  |  |  |  |


|  | 6 | A3 paper for each group/pair <br> Notebook for each student |
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| Assessment | Assess each group/pair work each day. <br> Assess individual work each day. <br> Assess final project. |  |

