

Maths Learning Design

Topic:	Basic Operations	Class:	Year 3 Year 4 Year 6 (I)	Duration:	6 periods
Subtopic :	Addition and Subtraction				
Content Learning Objectives:	Pupils should be able to: <ul style="list-style-type: none"> • Add and subtract 4 digit number with 2 digit number • Add and subtract 4 digit number with 3 digit number • Add and subtract number from 5 digit numbers • Round off to estimate addition and subtraction 				

Teaching & Learning Activities	Resources	Summary
<p style="margin: 0;">Tuning in (Introduction) <i>Determine prior knowledge and prepare pupils</i></p> <ol style="list-style-type: none"> 1. Today you will learn how to add and subtract up to 5 digit numbers with 2 to 3 digit numbers as well as estimating the answer by rounding it off. 2. We are going to estimate the answer for addition and subtraction before finding its actual answer. 3. We begin with recapping the place value of a 7-digit number. Example: 7 821 436: a. What is the place value of 3? b. What is the place value of 8? etc. 4. What is the sum/difference of these numbers (basic addition and subtraction involving numbers ranging from multiples of 10s)? Emphasising on aligning the numbers according to its place value before adding or subtracting by using place value chart. Example 1: $2\ 000 + 30?$ Example 2: $4\ 700 - 500?$ 5. Can you round off these numbers (up to 4 digits)? Example: $3\ 240 \quad 3\ 000$ $\quad 23 \quad 20$ 6. Can you find the estimated sum/difference of these numbers (4 digits with 2 digits)? Example 1: $3\ 240 + 23 \quad 3\ 000 + 20 \quad 3\ 020.$ Example 2: $3\ 240 - 23 \quad 3\ 000 - 20 \quad 2\ 080$ 7. Can you find the actual sum/difference of this number (4 digits with 2 digits)? Example 1: $3\ 240 + 23 = 3\ 263.$ Example 2: $3\ 240 - 23 = 3\ 217.$ 	<ul style="list-style-type: none"> • PowerPoint slides with questions and place value chart 	

<p>Finding out & Sorting out (Lesson Development) <i>Time to locate, gather information, organise and process ideas.</i></p>	<ol style="list-style-type: none"> 1. Group the pupils (4/5 pupils in one group). 2. Give out the Activity Sheet 1 (consist of questions on additions – Estimated Sum and Actual Sum: without and with regrouping). 3. Pupils answer the questions and advise them to use place value chart to align the numbers in the correct place value. 4. Pupils compare their answer between estimated sum and actual sum. Ask them to take note of their findings. 5. Give out the Activity Sheet 2 (consist of questions on subtractions – Estimated difference and Actual Difference: without and with regrouping). 6. Pupils answer the questions and advise them to use place value chart to align the numbers in the correct place value. 7. Pupils compare their answer between estimated difference and actual difference. Ask them to take note of their findings. 	<ul style="list-style-type: none"> • Activity Sheet 1 • Activity Sheet 2 	<p>Expected outcomes:</p> <ul style="list-style-type: none"> • Add 4 digit number with 2 digit number • Add 4 digit number with 3 digit number • Round off to estimate addition and subtraction • Subtract 4 digit number with 2 digit number • Subtract 4 digit number with 3 digit number • Round off to estimate addition and subtraction
<p>Making Conclusions <i>Draw conclusion and consolidate understanding</i></p>	<ol style="list-style-type: none"> 1. Teacher asks and discusses relationships of their findings, from estimated sum and actual sum and from estimated difference to actual difference. 2. Provide pupils with Activity Sheet 3 which consist of addition and subtraction of 5-digit numbers. 	<ul style="list-style-type: none"> • Activity Sheet 3 	<ul style="list-style-type: none"> • Add and subtract number from 5 digit numbers
<p>Go further (Enrichment) <i>Apply knowledge to develop further understanding</i></p>	<ol style="list-style-type: none"> 1. 	<ul style="list-style-type: none"> • 	
Evaluation (with respect to the Content Learning Objectives)			
<p>What worked well?</p>	<p>What would make it even better next time?</p>		