


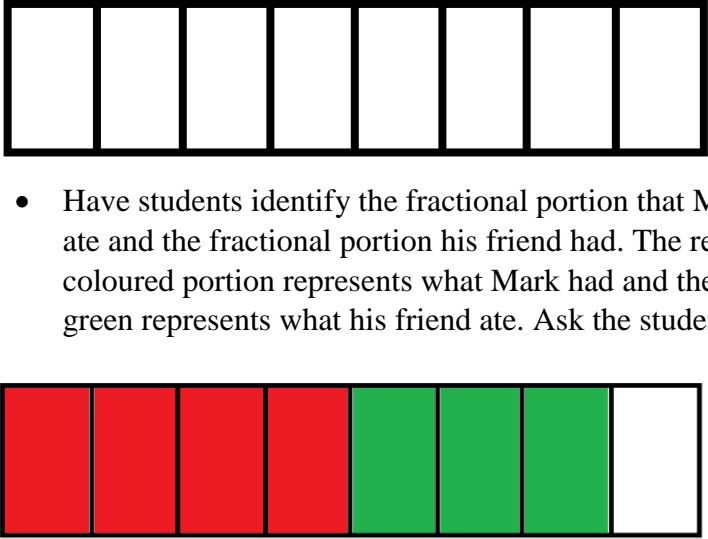
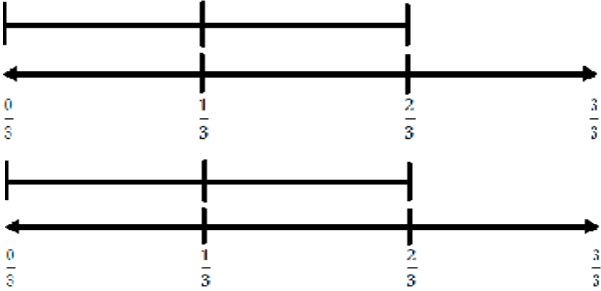


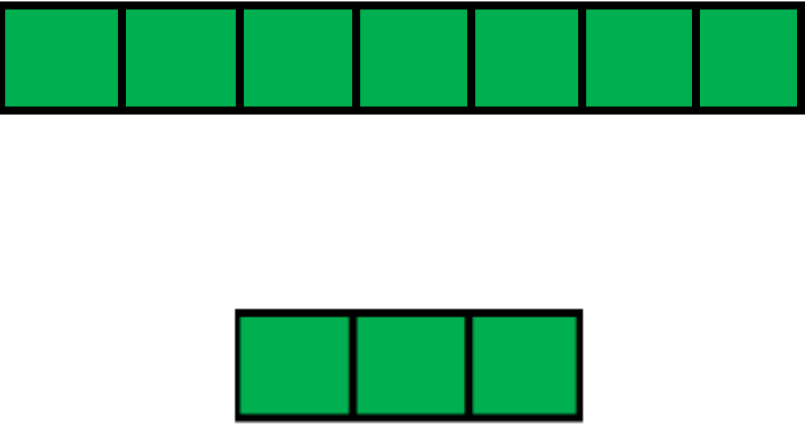
Mathematics Planning Template


Week	Topics/Objectives	Main concepts	Teaching/learning activities	Assessment/Homework activities
May 2 – 6	a. Identify fraction families	Fraction families Same size units Part-whole relationship Adding Subtracting Fraction sum/addend Missing addend	Activity 1. <ul style="list-style-type: none"> Print a copy of the <i>Morris’</i> family picture below.  <p>In groups, allow students to examine the picture then answer the following questions:</p> <ol style="list-style-type: none"> How many members make up the whole family? What fraction of the family is a boy/girl/man/woman? How can this be represented? <p>NB: They will write both the symbolic representation and the name in words for the question at letter ‘c’ above.</p>  <ul style="list-style-type: none"> In the same group identified in one above, allow students to examine the number of bits that this chocolate has. Allow students to state what fraction 	Obj a <ol style="list-style-type: none"> Resource document # 4 (Allow students to select and record the names, family and symbols for given pieces of fractions). Allow students to make new families of various colours from construction paper. Each piece must be of equal size.


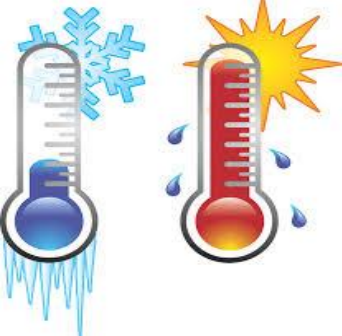
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	b. Add and subtract fractions with the same denominator		<p>each bit represents and how many fractional bits make up the whole. Because each fractional bit is one fifth, this is considered to be a family of fifths.</p> <ul style="list-style-type: none"> Allow four students each holding up one fourth (one quarter) of the same size whole of a fraction tower, strip or bar. Allow students to state the fraction family to which they belong and justify their answer. For e.g: the fraction bar below is partitioned into 4 equal parts hence the four parts which make up the whole are called <i>fourths</i> or <i>quarters</i> or $\frac{1}{4}$. The four parts would be  <p>in the same fraction family called fourths.</p> <ul style="list-style-type: none"> With the use of sets of or pictures of objects or construction paper, allow students to explore other fraction families such as eighths, halves, thirds, sixths and so on. <p>Activity 2</p> <ul style="list-style-type: none"> Have students read the scenario: <i>Mark bought a pizza which was cut into 8 slices. He ate 4 slices and his sister 3 slices. What fraction of the pizza was eaten altogether?</i> Allow students to represent the whole pizza using fraction bar or fraction strips. 	<p>Obj b</p> <p>Allow students to solve the following suggested activities:</p> <ul style="list-style-type: none"> The sum of three numbers equal to one. Two of the numbers are $\frac{1}{9}$ and $\frac{5}{9}$. What




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			 <ul style="list-style-type: none"> Have students identify the fractional portion that Mark ate and the fractional portion his friend had. The red coloured portion represents what Mark had and the green represents what his friend ate. Ask the students: <p>How can this be written? What operation would be necessary to find out the total fractional portion eaten? Hence $\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$.</p> Allow students to count the number of red fractional portion and add with the number of blue fractional portion then state the total fractional eaten altogether. Ask students to share with the class what they noticed between the sum of the two numerators and what happened with the denominators. Allow them to justify their answers. Another scenario: <i>Rose has two cakes of the same size for her birthday. She shared two thirds of each with her friends and family. What fraction of both cakes did she share with them?</i> 	<p>is the value of the other number?</p> <ul style="list-style-type: none"> A string of $\frac{4}{5}$ of a metre long. If $\frac{1}{5}$ of a metre is cut off, what length of the string will remain? By how much is $\frac{6}{7}$ greater than $\frac{2}{7}$? After $\frac{3}{8}$ of a litre of juice was poured out of a jug, there was $\frac{2}{8}$ of a litre left. What amount of juice, as a fraction of a litre, was in the jug at first?


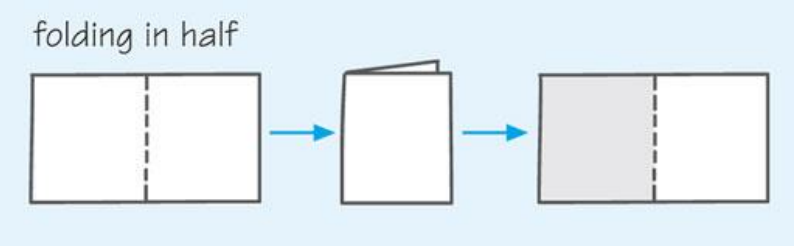
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			<ul style="list-style-type: none"> Guide students to use the number line to represent this information.  <ul style="list-style-type: none"> Both number lines denote the distances or portions of the cakes which were shared among Rose's family and friends. Representing this symbolically using appropriate operation: $\frac{2}{3} + \frac{2}{3} = \frac{4}{3}$. Hence, 2 thirds plus 2 thirds equal 4 thirds, that is, the total number of movements (jumps) from the start to the end of the movements. It is very important that keen attention is paid to the start of the fraction representation (zero point orientation) and the equal size intervals and the size number line representing the whole. Help students to see that it is two whole cakes and 2 thirds was shared from each whole. Have students represent each whole in a fractional form. Allow them to count the number of total thirds the cakes were cut into. Allow them to write same in words and an mathematics sentence. (NB: Students should see the reason to add numerator ONLY and NOT the denominator). 	

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			<ul style="list-style-type: none"> Additional representations of adding fractions with like denominators can be done using the number line, fraction strips/bar/tower with other fraction families. Extend this activity by guiding students to see what fraction from both cakes was left. Allow them to carry out the appropriate operations as well. Each whole cake has three thirds, if two thirds was shared for Rose's family and friends, then what was left is one third. ($\frac{3}{3} - \frac{2}{3} = \frac{1}{3}$) Guide students using the fraction tower, strips, number line or fraction bar to carry out the scenario: <i>Marvin has a piece of sugar-cane with 7 joints. If he gave away 2 joints and ate 2 joints, what fraction the sugar-cane he has left?</i> The bars below will be used to show this. The first bar represents the seven jointed sugarcane. 	

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			<div style="display: flex; justify-content: space-around; align-items: center;">  </div> <ul style="list-style-type: none"> The bar is now broken (split) to show the fractional portions which were eaten or given away. Each of the 2 bars represents 2 parts out of 7 parts or 2 pieces of 2 <i>sevenths</i> ($\frac{2}{7}$). Hence, $\frac{2}{7} + \frac{2}{7} + \frac{3}{7} = \frac{7}{7}$. However, to show the fractional that was left start with the whole which is 7 sevenths then subtract the total portions eaten and gave away. That is, $\frac{7}{7} - \frac{4}{7} = \frac{3}{7}$. <p>NB: This also shows to proof that subtraction is the reverse of addition and students will reason to subtract ONLY the numerator and NOT the denominator.</p>	

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May 9 – 13	a. Identify a thermometer and associate it with experiences hot/cold/warm/cool	<ul style="list-style-type: none"> • Estimation • Addition • Subtraction • temperature 	<div style="text-align: center;">  </div> <p>Activity 3</p> <p>The teacher will display a thermometer for the students to see. The students will use purposeful questioning to bring out the use of the thermometer. The teacher will then prepare several containers with water of varying temperatures; hot and cold water tap water, water at room temperature, and water from the refrigerator. The students will use the thermometer to test the temperature of the water in each container and order them from warmest to coldest.</p> <p>The class can discuss what happens to water when it gets very hot and very cold and how can you tell when some objects are very hot. The students can then predict which temperature is the hottest and which is the coldest due to the rise or fall of the mercury.</p>	<div style="text-align: center;">  </div> <p>Obj.a</p> <p>The students will be questioned using expressions like “hot and cold” and “warm and cool” which will be used to develop the concept activities;</p> <ul style="list-style-type: none"> • It is hotter in summer or in the winter? Is it warmer inside our classroom or outside today? • How do you dress when you go outside on a cold day? Give the name of a cold/hot drink you drink when the day is cold or hot. When we talk about something hot or cold we are referring to temperature.

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May 16 – 20	b. Use thermometer to read temperature of various times of the day, year		 <p>Activity 4</p> <p>The teacher can explain that in a thermometer the liquid in the tube expands as the temperature level rises. The students can then use the thermometer to find the temperature of different substances to the nearest degree Celsius.</p>	 <p>Obj.b</p> <p>The students will be asked to take part in an investigation which involves reading a thermometer at various times for the day and record the results. They will be asked to make inferences with regards to the temperature which can be taken in the summer and in the fall.</p>
May 23 – 27	a. Verify, symmetry by folding	Matching halves (divide) Mirror image 2 identical parts Vertical Horizontal diagonal Folding Symmetrical line	Activity 5 	Obj a 1. Resource document Numbers 5 & 6

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			<ul style="list-style-type: none"> • Give students various size leaves. Have them examine and share with the class what they notice with the leaves. Allow students to fold the leaves length wise and share what they notice. • When folded, one side of the leave should match exactly unto the other side. That vein which separates each side can be referred to as a line of symmetry. • In groups, have students fold a sheet of construction paper whether vertically, horizontally or diagonally so that one half matches exactly unto the other half. Allow students to open the paper and share what they have noticed. One side should match exactly unto the other side or divides it into two identical parts. The broken line indicates the line of symmetry or line of reflection.   <ul style="list-style-type: none"> • Have students rest a mirror on the broken and share 	

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			<p>with the class what they noticed in the mirror. They should realise that an image of the object is reflected in the mirror. The point at which the mirror meets the object is called a line of reflection.</p> <ul style="list-style-type: none"> • Give students picture cut outs of houses, windows, people, animals and or locate things in their environment and have them share with the class the one that is symmetrical or not. Allow students to justify their findings. • Allow students to construct symmetrical figures on the geoboard and ask them what tells that the figure is symmetrical. • Have students examine which of the following capital letters of the alphabet A, B, D, F, M, P, Y and W as well as the numbers 0 – 9 are symmetrical or not. Allow them to justify their answer. 	