***GCU College of Education***

**LESSON PLAN TEMPLATE**

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| **Teacher Candidate:****Grade Level:****Date:****Unit/Subject:****Instructional Plan Title** | 5MathDifferentiating math Activities |
| **I. Planning** |
| **Lesson summary and focus**: | *The lesson teaches the fraction tasks which include the area, lengths and set/quantity models through the use of word problems and object models.* |
| **Classroom and student factors**: | *The class has a structure in such a way that the students with common challenges are placed on one table. The use of presents motivate the students especially those that have low parental involvement. The distances between tables are large enough to enhance the movement of students.* |
| **National / State Learning Standards:** | 5.NF.A.1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. |
| **Specific learning target(s) / objectives:** Students should apply their understanding of equivalent fractions developed in fourth grade and their ability to rewrite fractions in an equivalent form to find common denominators. They should know that multiplying the denominators will always give a common denominator but may not result in the smallest denominator. | **Teaching notes:***Potential issues*1. *The students may encounter decimal notations when solving the word problems.*
2. *When solving the fractions, the students may encounter the challenges of the recurring decimals.*
3. *The students may come across very large decimal places.*
4. *In the measurement of the length and hence the calculation of areas and volumes, the students may encounter inaccuracy problems.*
5. *Students’ disruption after they complete their tasks earlier that the others.*

*Possible solutions*1. *The students are taught or reminded how to convert decimals into fractions. The teacher may do it for them.*
2. *The recurring decimals are avoided through the use of fractions instead. The teacher does so for the students.*
3. *The teacher simplifies the fractions or demonstrates how the fractions are simplified.*
4. *The students are taught on how to avoid parallax in measurement and then on how to round off to avoid large decimals or fractions.*
5. *The students who complete their tasks early are given the task of writing the procedures of obtaining the answers of the volumes of objects on the board.*
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| **Agenda:***Opening of the lesson**Asking simple questions on the substation of numbers to enhance the subtraction of fractions.**Learning and teaching activities**Teaching on the subtraction and the addition of fractions with same denominators.**Extending the questions to the fractions with unequal denominators.**Closure**Teaching the students in the division and multiplication of fractions**Assisting the students to recognize the volume as a 3-D space.* | **Formative assessment:***Each section will be followed by three questions each whereby the students are required to get 9 out of the 12 questions correctly.* |
| **Academic Language:** | ***Key vocabulary:*** *The content specific terms to be taughtinclude place value, operations, parallax, equivalent fractions, denominators, numerators, product, and quotient.* | ***Function:*** *The language vocabulary is to enhance the flow of the communication betwixt concepts. The understanding of the students will get assessed through the students answering the questions in front of the whole class while usingthevocabulary learnt.* | ***Form:*** *The language will be structured by the use of the transition words which will enhance the flow of language.**The demonstration of the depth of understanding by the students will be enabled through their small group whereby they will be expected to explain the procedures in the manipulations to peers as the teacher goes around assessing them.* |
| **Instructional Materials, Equipment and Technology:** | *Erase board**Marker* *White board**Question paper**Blank paper**Pens and pencil**Object and shapes to display volumes* |
| **Grouping:** | *The group will have four students namely Arturo, Brandie, Diana and Eduardo.* |

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| **II. Instruction** |
| **A. Opening** |
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| **Prior knowledge connection:** | *The lesson connects to previous lesson in the sense that the simple operations of whole numbers including addition, subtraction, multiplication and division are applied. It also applies the knowledge of the drawing of shapes before they can calculate their lengths, areas and volume.* |
| **Anticipatory set:** | *The knowledge of fractions assists the children in the knowledge of statistics to be used later in life. The knowledge of volumes, area and length are used to improve the judgment of the students whereby they can compare objects and portions allocated to them in the real-life situation.* |
| **B. Learning and Teaching Activities (Teaching and Guided Practice):** |
| **I Do** | **Students Do** | **Differentiation** |
| *Your “I Do*1. *The teacher teaches the fraction models manipulation using operations. He procedures of multiplication and division of fractions including their simplifications are given out*
2. *The students are introducedto the word problem in which the fractions are incorporated for them to have the sense of the applicability of the fractions. It includes the models using the decimal notations. The teacher teaches the reasons behind the considerations during the computations on the word problems.*
3. *The teacher gives the student different objects of different shapes and explains the difference between the 2-D and the 3-D. He demonstrates how to obtain the lengths of various shapes.*
 | 1. *The students increase their fluency of calculation of the fractions through doing the operations in their books and making reasonable estimates for the questions asked. They demonstrate the relationship between multiplication and division.*
2. *The students solve questions emanating from the word problems while being able to reason from a twisted background. The students answerfromthe question papers five worded question entailing the operations of fractions.*
3. *The students measure the lengths of various shapes and calculate the areas of various faces which eventually lead to the calculation of the volumes of the objects. They repeat the same process for five more objects per individual.*
 | *The students have a total of 15 questions by the end of the lesson of which the students are required to get 11 of them correct. The students with problems are assisted whereby the list of instruction used is pinned at the front of their desks. The teacher walks round the groups assisting the students.* |

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| **III. ASSESSMENT** |
| **Summative Assessment:** | *Include details of any summative assessment as applicable and attach a copy with an answer key. Explain how the summative assessment measures the learning target(s)/objectives. If you do not include a summative assessment, identify how you will measure students’ mastery of the learning target(s)/objectives.* | **Differentiation:***Describe methods of differentiation for your summative assessment, including accommodation or differentiation strategies for academically, behaviorally and motivationally challenged students.* |
| **Closure:** | *Explain how students will share what they have learned in the lesson. Identify questions that you can ask students to begin the closure conversation. Identify how students will confirm transfer of the learning target(s)/ objectives to application outside the classroom.* |
| **Homework:** | *Clearly identify any homework tasks as appropriate. Elaborate whether the homework is drill- or skill-practice-based and explain how the homework assignment supports the learning targets / objectives. Attach any copies of homework.* |