***DEPARTMENT OF NATURAL SCIENCES***

***LESSON PLAN***

***NAME OF TEACHER****: ………………………* ***DATE****:*

***SUBJECT****: MATHMATICS* ***DURATION****:80MINUTES*

***TOPIC****: RELATION AND FUNCTIONS* ***CLASS:*** *11*

***SUBTOPIC****: MAPPPING* ***NO OF BOYS…….***

***GIRLS…….***

***REFERENCES****: Progress in mathematics grade 11 pg 78*

***TEACHING LEARNING /AIDS****: learners book, chalk board and chart*

***RATIONALE****: This is lesson is on mapping. Teacher Exposition, Demonstration, Question and answer and group or class discussion methods will be used. This lesson will develop learners knowledge about Formula, functional notation, set builder notation. The skill of Identification of inverse of a function. The value of Logical thinking in solving inverse and composite functions.*

***LEARNING OUTCOMES: L.S.B.A.T:***

* *Find inverses of one- to- one functions*

***PREREQUISITE KNOWLEDGE****: Learners have ideas about the topic being taught.*

***LESSON INTRODUCTION*** *revises through the previous lesson*

***LESSON DEVELOPMENT***

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| --- | --- | --- | --- |
| *CONTENT* | *TEACHER’S ACTIVITY* | *PUPIL’S ACTIVITY* |  |
| *MAPPING** *Mapping is the matching of the elements of one set to the element of another set by means of a rule*

*EXAMPLE**(A). A relationship is given by the rule y=x2,the set of the domain is {0,1,2,3}**i. express the relationship between x and y in a mapping diagram**SOLUTION for y given the {0,1,2,3}**Using the values 0,1,2,3}*1. *y=x2=0*
2. *y=x2=1*
3. *y=x2=2*
4. *y=x2=9*

$∴$*the diagram will be* *0 0* *1 1*  *2 4*  *3 9**X y=x2**(B)Express the relationship between x and y in the mapping diagram given the function y=x2-2****EXERCISE****Q1. A function is given by the rule f(x)=x2+1.and the domain is {0,1,2,3}.show the relationship in a mapping diagram.**Q2.using the domain in question 1,show the relationship between x and y in a mapping diagram defined by the rule y=x2-1**Q3.f(x)*$\rightarrow $*3x.show the relationship of x and y in a mapping diagram* | *Teacher to briefly explain about mapping* *Teacher to write the example and solve on the board* *Teacher to ask volunteer learners to go and solve part B on the board**Teacher to write the exercise on the board*  | *Learners to listen attentively* *Learners to listen attentively* *volunteer learners to go and solve part B on the board* ***EXPECTED ANSWER****y=x2-2**using values 0,1,2,3*1. *y=x2-2=-2*
2. *y=x2-2=-1*
3. *y= x2-2=2*
4. *y= x2-2=7*

$∴$*the diagram will be* *0 -2* *1 -1* *2 2* *3 7**X y=x2-2**Learners to write the exercise in their exercise book* ***EXPECTED ANSWERS****Q1* *0 1* *1 2*  *2 5* *3 10**X f(x)=x2+1* *Q2.* *0 1* *1 0*  *2 3* *3 8**X y=x2-1* |  |

***Lesson conclusion:*** *Tr to conclude lesson by revising through the lesson with leaners to help remedial learners*

***Learners evaluation:***

***Teachers evaluation:***