

MATHEMATICS LESSON OBSERVATION SHEET FOR LESSON STUDY

OBSERVER'S NAME: _____

OBSERVER'S INSTITUTION: _____

DATE OF LESSON PRESENTATION/OBSERVATION: _____

Name of lesson presenter:	M. _____
Name of school Where lesson is conducted	_____ Primary School
Grade:	7
Topic:	Numeric Pattern
Lesson objective(s):	Investigate and extend numeric patterns describe and justify the generic rule
Duration of the lesson:	1 hour

patterns
in word
math
expressed

		COMMENTS/MOTIVATION	
		YES	NO
INTRODUCTION	Learners' interest in the topic was stimulated. Motivate your observation.	✓	
OBJECTIVE(S)	Were/ was clearly presented to learners	✓	
	Were/ was aligned to the curriculum	✓	
LESSON PRESENTATION	Were/ was grade appropriate	✓	
	Learners were actively and meaningfully engaged in the lesson	✓	
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)	✓	
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)	✓	
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)	✓	

Teacher asked learners if they can identify pattern in setting arrangement for the class. The learners explained their observation. There were stated by the teacher.

ATP Complicit

Learners were given a mixed math activity to complete individually.

However the method the had use did not allow for deep conceptual understanding.

Learners were given a question to discuss in groups and present back.

Learners were allowed to do (all) $B = 3 + C$ instead of $5 - 3 = C$ rather lets do it: $5 - 3 = 3 + C - 3$ $C = 2$

$C = 2$

Learners presented their answer to the rest of the group.

2

* Groups were too big and worked against our lesson since lesson went making noise.

*

When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	✓	✓	Yes. However some observed interfered with the lesson being delivered. However learners struggled to demonstrate conceptual understanding but procedural fluency was evident.
The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence		✓	Time wasted on group activity
The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given	✓	✓	learners were able to extend and investigate range of patterns → describe a general theme in words and in mathematical symbols

not relevant to lesson

Teacher did not check

Concept clarification
Additive Inverse ^{instead} Transposing

Multiple choice Inverse

Investigate the pattern
 to discover the ^{general rule} pattern.

Strive for conceptual understanding
 rather procedural fluency.

$$T_n = 4(1) + 0$$

$$T_{(0)} = 4$$

"Position" If $n = 1$ then T_1
 hence $n = n$ then

$$\begin{aligned} \text{Rule} &= 3 \times 1 + 2 \\ &= 3 \times 2 + 2 \\ &= 3 \times 2 + 2 \end{aligned}$$

$$T_n = 3 \times n + 2$$

T_n

- Representation
- Reasoning and proof
- Communication
- Problem solving
- Connections

observers are not to interfere in the lesson but observe.

FIELD NOTES

Lesson by time was problem at the
 * Other colleagues continue to walk in
 during the lesson.

**MATHEMATICS LESSON OBSERVATION SHEET
FOR
LESSON STUDY**

OBSERVER'S NAME: M [REDACTED] O

OBSERVER'S INSTITUTION: [REDACTED] SCHOOL

DATE OF LESSON PRESENTATION/OBSERVATION: 02 MAY 2024

Name of lesson presenter:	T [REDACTED]
Name of school Where lesson is conducted	[REDACTED] P/S.
Grade:	7
Topic:	Numeric & Geometric patterns
Lesson objective(s):	
Duration of the lesson:	

For mental maths (10 min)

answering a similar question to the one they are given

		YES	NO	COMMENTS/MOTIVATION
INTRODUCTION	Learners' interest in the topic was stimulated. Motivate your observation.	✓		The table are arranged in 5's Pupils are sitting in boy & girl → Do not shut down the learner rather give her another chance to try another pattern
OBJECTIVE(S)	Were/ was clearly presented to learners	✓		
	Were/ was aligned to the curriculum	✓		
	Were/ was grade appropriate	✓		
LESSON PRESENTATION	Learners were actively and meaningfully engaged in the lesson	✓		
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)	✓		An activity was given to learners to discuss and give feedback to the class.
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)	✓		
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)	✓		

2

learners not audible

Mental maths started at 14:06 - 14:20 (14 min)

Lesson 14:21 - 14:40 (19 min)

Learner activity - 14:41 - 15:01 (20 min)

1st activity 14:41 - 14:53

2nd activity 14:55 - 15:01

learner feedback to the class 15:01 - 15:22 (20 min)

Conclusion: 15:23 - 15:25

*Some learners lacked presentation skills

	When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	✓	✓	<p>The learners seemed to struggle with finding T_n??</p> <p>Maybe the teacher should use a different strategy.</p> <p>Example:</p> $T_1 = 6(1) + C$ $T_2 = 6(2) + C$ $T_1 = 7(1) + C = 4 + C$ $T_2 = 7(2) + C = 14 + C$ $T_3 = 7(3) + C = 21 + C$
CONCLUSION	The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence	✓	✓	
	The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given		✓	<p>I do not think the lesson objective ② was achieved</p>

FIELD NOTES

**MATHEMATICS LESSON OBSERVATION SHEET
FOR
LESSON STUDY**

OBSERVER'S NAME: [REDACTED] *le*

OBSERVER'S INSTITUTION: [REDACTED] *en*

DATE OF LESSON PRESENTATION/OBSERVATION: *02/05/2024*

Name of lesson presenter:	<i>Th [REDACTED]</i>
Name of school Where lesson is conducted	<i>Pl [REDACTED]</i>
Grade:	<i>7</i>
Topic:	<i>Numeric and Geometric pattern</i>
Lesson objective(s):	<i>investigate and extend numeric pattern</i>
Duration of the lesson:	<i>1 hour</i>

		YES	NO	COMMENTS/MOTIVATION
INTRODUCTION	Learners' interest in the topic was stimulated. Motivate your observation.	✓		Learners gave example of the pattern in their sitting arrangement one boy and one girls
OBJECTIVE(S)	Were/ was clearly presented to learners	✓		Mental Maths to start work
	Were/ was aligned to the curriculum	✓		thematic or geometric patterns (Term 2)
	Were/ was grade appropriate	✓		Curriculum or ATp
LESSON PRESENTATION	Learners were actively and meaningfully engaged in the lesson	✓		Learners were able to do correction for mental maths (on the board)
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)	✓		when they were doing mental maths, they were all to do calculation on the board
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)	✓		Learners could explain the formula e.g. input & constant difference, positive
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)	✓		Learners provided solution to demonstrate answers by using formula to generate answer

	When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	✓	Learners were given opportunities to work in groups Sitting arrangement allowed them discussing the formulas and generating output.
	The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence	✓	The lesson was wrapped by giving class activity in groups to show their understanding on the content.
	The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given	✓	They were able to give answers on the task given to them generating output - as the table given to them.
CONCLUSION			

FIELD NOTES

- Learners actively participated in the lesson.
- Learners gave formula and explained how to use it.
- Learners understand the the input and output and how to generate the ~~the~~ output from the table
- Learners were given task to work in groups
- Problem solving

**MATHEMATICS LESSON OBSERVATION SHEET
FOR
LESSON STUDY**

OBSERVER'S NAME:

M. [REDACTED] A

OBSERVER'S INSTITUTION:

M. [REDACTED] School

DATE OF LESSON PRESENTATION/OBSERVATION:

02/05/2024

Name of lesson presenter:	<u>T. [REDACTED] L</u>
Name of school Where lesson is conducted	<u>[REDACTED]</u>
Grade:	<u>7</u>
Topic:	<u>Numeric and Geometric Pattern</u>
Lesson objective(s):	<u>Investigate and extend numeric patterns Describe and justify the general rule in your words and in mathematical representation</u>
Duration of the lesson:	<u>1 hour</u>

		YES	NO	COMMENTS/MOTIVATION
INTRODUCTION	Learners' interest in the topic was stimulated. Motivate your observation.	✓		Learners were asked about the pattern that they can observe in class and to explain the pattern. (Sitting arrangement and table arrangement in class)
OBJECTIVE(S)	Were/ was clearly presented to learners	✓		Lesson objectives were presented to the learner
	Were/ was aligned to the curriculum	✓		Air aligned to the curriculum
	Were/ was grade appropriate	✓		Grade appropriate
LESSON PRESENTATION	Learners were actively and meaningfully engaged in the lesson	✓		
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)		✓	
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)	✓		Yes, They were asked to justify their answer. When they were giving the general rule for the pattern
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)			

	When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	✓		<p>Responses Teacher moved around to offer support to learners.</p> <p>*Responses were not identify and placed on the board for discussion</p>
CONCLUSION	The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence	✓	✓	<p>key issues related to the objectives were not emphasis.</p>
	The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given		✓	<p>Most learners were unable to generate the rule for the pattern.</p>

FIELD NOTES

Neutral Maths Q3 learners did not find the correct solution to the Pattern.

*Extend the pattern by adding the constant and not considering the position of the term.

*Group size was too big, learners to be working together. Some were not participating in discussion.

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OBSERVER'S NAME:

OBSERVER'S INSTITUTION:

DATE OF LESSON PRESENTATION/OBSERVATION: 02-05-2024

Name of lesson presenter:	M. [REDACTED]
Name of school Where lesson is conducted	P. [REDACTED] A
Grade:	7
Topic:	Numeric and Geometric Pattern
Lesson objective(s):	- Investigate and extend patterns - Describe and justify the general rule.
Duration of the lesson:	- 1 hour

→ Mentals Maths Was helpful to stimulation, However, it took a lot of time.

(Write them on board)

			COMMENTS/MOTIVATION	
			YES	NO
INTRODUCTION	Learners' interest in the topic was stimulated. Motivate your observation.		✓	
OBJECTIVE(S)	Were/ was clearly presented to learners			X
	Were/ was aligned to the curriculum		✓	
	Were/ was grade appropriate		✓	
LESSON PRESENTATION	Learners were actively and meaningfully engaged in the lesson		✓	
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)		✓	
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)		✓	
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)			

learners Were asked on sitting arrangement which forms a pattern. This ineffective allows learners to learn using their surroundings and Make Sense of them. However, improvement is required because Most learners did not show interest.

Yes they were presented, but learners will easily forget them.

ATP Compliant.

ATP followed

learners are fully engaged throughout the lesson

learners were grouped and had time to engage with each other studying solutions as Collective.

- Yes, learners extended their understanding by further giving clarity with their own words.

- Some learners were called to come in front and provide answers.

	When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	✓		<ul style="list-style-type: none"> - learners were allowed to present their answers and it improves their communication skills. - The teacher walked around assisting learners in their respective groups. However, the time was not adhered to.
CONCLUSION	The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence	✓		<ul style="list-style-type: none"> - No derogatory done. However, lesson revision was done to check learner understanding.
	The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given			<ul style="list-style-type: none"> - learners are still struggling with the 1st term.

FIELD NOTES

- learners were exposed without context. (Errors)
- learners did not find Sauter to the last question in the ~~Monte~~ Monte Mathus too high for them.
- Speaking to the board while writing. (Teacher)
- Classroom setting is conducive.
- Last classes are to be looked at as there are many contextual factors

Concept Clarification *

* Transpositional Rule

Short Cut

* The last learner was almost there, meaning we did not do just in terms of the rule or we underestimated their capabilities.

- Sitting arrangement was proper and I don't think it is applicable for larger group of 60 learners. Pairs were genuine be different
- learner engagement was good !!!

Concept Clarification

* Substitution *

(Re-teach) *

- Revision is required on the 1st term.

**MATHEMATICS LESSON OBSERVATION SHEET
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OBSERVER'S NAME: [REDACTED]

OBSERVER'S INSTITUTION: [REDACTED] Primary

DATE OF LESSON PRESENTATION/OBSERVATION: 02/05/2024

Name of lesson presenter:	<u>[REDACTED]</u>
Name of school Where lesson is conducted	<u>[REDACTED] Primary.</u>
Grade:	<u>7</u>
Topic:	<u>Numeric and geometric pattern</u>
Lesson objective(s):	<u>Investigate and extend numeric and geometric pattern. Describe and justify rule.</u>
Duration of the lesson:	<u>1 hour</u>

		YES	NO	COMMENTS/MOTIVATION	
				INTRODUCTION	
	Learners' interest in the topic was stimulated. Motivate your observation.	X		Learners were able to identify what is a pattern in general.	
OBJECTIVE(S)	Were/ was clearly presented to learners	X		Teacher was able to read objectives to the learners.	
	Were/ was aligned to the curriculum	X			
	Were/ was grade appropriate	X			
LESSON PRESENTATION	Learners were actively and meaningfully engaged in the lesson	X			
	Sufficient time was given to learners to think, discuss and respond either individually, in pairs or in groups. (Give practical scenario)	X		Teacher was asking question and let learners raise their hands.	
	Learners were asked to justify their answers where necessary. (Give practical and observed scenario)	X		Yes the teacher was asking to justify where number change the sides, it must move from + to -.	
	Learners provided solutions to demonstrate their understanding (You may provide snap shot)				

	When learners worked in small groups/ pairs/ individuals, the teacher moved around to offer support and to strategically identify responses to be placed on the board for discussions.	x		They have exceeded their time and made the lesson so long.
	The lesson was wrapped up by emphasising key issues related to the objective(s), e.g. Multiples; Equivalence			
	The majority of learners achieved the lesson objectives. Motivate your observation, e.g. talk to solution to the problems given			
CONCLUSION				

FIELD NOTES

$$T_n = dn + c$$