BOARD PROTOCOL: SAMPLE

THE BOARD *ENABLES* TEACHERS TO CONVERT *INTENTION INTO ACTION*

EXAMPLE – GRADE 01 | LOGICAL AND MATHEMATICAL THINKING SESSION

UNDERSTANDING GOAL	o Students will understand the advantages of the decimal number system. o Students will identify the rules of the decimal number system. (like place value, numerals etc.) o Student will understand where the quality of tenness comes from in our number system.
OBJECTIVE(S)	o To make our own number system using rules of existing number system. o To assess the prior knowledge of students about decimal number system. (before teaching decimal fractions)
TOPIC(S)	Decimal Number System
VOCABULARY	Vocabulary: Hieroglyphs, Hindu-Arabic Number system, Decimal Number System
TEACH	The origin of our number system and its quality of tenness.
REACH	Relevance of relevance, Knowing the why helps
DATE	11-Sep-19
TIME	Block session (12:00 – 12:45) (1:00 – 1:45)
MINDFULNESS	Students close their eyes and teacher asks them mental math questions. Students show their responses using fingers. (e.g. how much is 21 – 12?
RELEVANCE	By making our own number systems we will able to understand the decimal number system in a better way.
LOL	Story, Discussion

SESSION FLOW	DESCRIPTION
GUIDED INQUIRY	Number Systems o Teacher starts the session by setting the agenda and criteria. o Teacher starts the story of numbers by sharing that there was a time when there were no numbers or Math. How the need for counting led the people to use their fingers and other objects to count. Later, people started using symbols. o Teacher writes the different Egyptian hieroglyphs on the board and writes a number using hieroglyphs on the board. Students decode the number by discussing with a partner. o Teacher then writes a number in decimal number system, and asks the student to compare the two number systems. (differences, similarities). o Teacher then lists down the rules of decimal number system by way of questioning the students. (Numerals [0-9], adding places to the left, place value increases ten times). Teacher points out the quality of tenness in our system, ten numerals, each place value becomes ten times the previous. o Next, teacher asks the students that now we create our own number system where there are only 5 numerals [0—4] and all other rules remain the same. In groups, students write the first twenty numbers of such a number system. o In BA, the student write the first 30 numbers of a number system with only 7 numerals [0-6]
POU	First 20 numbers of a five number system in their notebooks.
CTL	• What can we name the new number system? • What will be the different place values in this new number system? • How will be the decimal counterpart of the number 14 in this number system? • Which is better knowing how to use the car or knowing how to make the car? • How will, learning to make a new number system, help them in using the decimal system?
REFLECTION	There was good participation by students. 4 groups out of 6 were able to list the numbers of the new system. The session went a little over time.

EXAMPLE – BOARD PICTURE

DATE 1.9.2019

TOPIC
Decimals.

☺ All

☹ —

AGENDA FOR THE DAY
— MM ✓
— Story ✓
— Group.
— CTL

IS OF VALUE (RELEVANCE)
Making our own number-system to understand decimal number system

SHOW VALUE (GUIDED INQUIRY) Decimal Number System.

| $10 \to 10,00$ | 100 | 10 | O |
| $5 \to 6.25$ | 25 | 5 | O |

$D \to \overset{T\ U}{24} = 20+4 = 24$

$P \to \overset{FU}{\underline{24}} = 2\times5+4$

$FU = 14$

$33 = 3\times5+3$

$FU = 18$

$134 = 25\times1 + 3\times5 + 4\times1$
$\quad = 44$

→ ⅌
→ GR (all)
→

Pentamal

		D
0		0
1		1
2		2
3		3
4		4
1 0	—	5
1 1	—	6
1 2	—	7
1 3	—	8
1 4	—	9
2 0	—	

(14)

LANGUAGES OF LEARNING Story Discussion.

KNOWLEDGE (FACTS VOCABULARY & DEFINITION)
— Counting
— Hieroglyphs.
— Hindu–Arabic number system
The Decimal Number System.

ADD VALUE (BA POU)
Create your own number system using 0,1,2,3,4, (first 30) 5,6