Lesson Study Report Guidebook for Unplugged Computational Thinking

Dr. Warabhorn Preechaporn & Dr. Wan Noor Adzmin Mathematics Education Specialists Training & Research Division SEAMEO RECSAM Penang, Malaysia

GUIDEBOOK FOR UNPLUGGED COMPUTATIONAL THINKING



The collaboration Project with The University of Tsukuba, Japan, and SEAMEO Centres namely:

- 1. SEAMEO STEM-ED, Thailand
- 2. SEAMEO QITEP in Mathematics, Indonesia
- 3. SEAMEO SEAMOLEC, Indonesia
- 4. SEAMEO RECSAM, Malaysia
- 5. Institute for Research and Development in Teaching Profession for ASEAN (IRDTP), Khon Kaen University, Thailand

Colouring Books



Task Sequence

Resource: Colouring Book [Book 2, Page 11A and 11B]



EVERY TIME THE ROCK BOES DOWN TO THE NEIGHE THAT HAS THE LOWEST NUMBER, BUT IF THERE IS N THAN WHERE IT IS, THEN IT STAYS THERE. PAINT IN BULE THE PAINT THAT FOLLOWS THE ROCK IN THE CELL WITH THE I	OPING CELL OT ONE LOWER THAT STARTS		CK CAME LOOSE ONS DOWN WIL K HIT MY HOUSE N THE CELL WITH		3
fraction	-	3	3	2	
Compose		4	5	5	
	$\frac{2}{2}$	4 8	$\frac{2}{5}$	$\frac{2}{6}$	
A A A A A A A A A A A A A A A A A A A	1/4	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{3}$	
HOW DA VALITAIK TO	$\frac{1}{5}$	2 9	3	$\frac{1}{7}$	
FOUR INNER WOICE?	3 8	1 8	1/4	$\frac{1}{9}$	









<u>3</u> 4	$\frac{3}{5}$	5	
4 8	25	$\frac{2}{6}$	
$\frac{1}{3}$	23	$\frac{1}{3}$	
$\frac{2}{9}$	39	$\frac{1}{7}$	
1	$\frac{1}{4}$	$\frac{1}{9}$	



















Revised CCRLS Framework in Mathematics

Feedback

- 1. What do you think about these activities?
- 2. What are your expectation of the outcome?
- 3. If you are given the opportunity to conduct these activities in your classroom, what the learning objectives would be?
- 4. What did you learn from these activities?

What do you think about these activities?

- I think these activities is quite challenging and very interesting.
- How to solving the problem, the answer do not have a constant answer, every child has the different answer. This is good for children so that they can try to think and have a creative thinking.
- Think the different ways to reach the position according to the question that I can create on this diagram.
- It's a bit challenging because its solution might be different from other people for the same question.
- To challenge thinking and show out the creativity and different mindsets.

What are your expectation of the outcome?

- The activities make us think creatively.
- The children doing these activities will have a creative thinking, they will have a different ways to solve a problem when in the real life they will also have their own answer not depending to anyone.
- This activities can help teachers to understand the primary students that what primary students think about?
- It is interesting and I got more ideas about when solving problem that might be more than one solutions and I can try to find more and more solution for it.
- It is quite good and interesting for me and I expected more creativity.

If you are given the opportunity to conduct these activities in your classroom, what the learning objectives would be?

- Students can learn about fraction and comparison of the fraction whether it is smaller or larger.
- Let the children have a chance to thinking for solving problem.
- Don't afraid that's will do something wrong just try your best and every child has different ways and ideas.
- Try to think out of the box and I get more ideas when solving problem and there might be more than one solution and I can try to find more and more solution.
- To enhance the Mathematical thinking of students, learn about comparison and increase the ability of students to understand mathematics.

What did you learn from these activities?

- I learn how to make comparison of the fraction.
- After these activities, can be conducted these activities in the classroom, give many benefit for the children to encourage to thinking I also learn that there are many different ways to solve a problem that can also use in our real life.
- Let the primary students think from simple to complex. We have various ways to achieve even though they choose different location and condition.
- Thinking out of the box and try to get some other solution that you may get so surprise.
- Understand of the condition and explanation.

Task Sequence Activities



Institut Pendidikan Guru (IPG) Penang Students

- Dr. Samri Chongo, IPG Lecturer
- 1. Chong Wei Lin
- 2. Koy Xin Hui
- 3. Lim Ai Ping
- 4. Jason Ng Ji Fu
- 5. Ong Yan Hao

