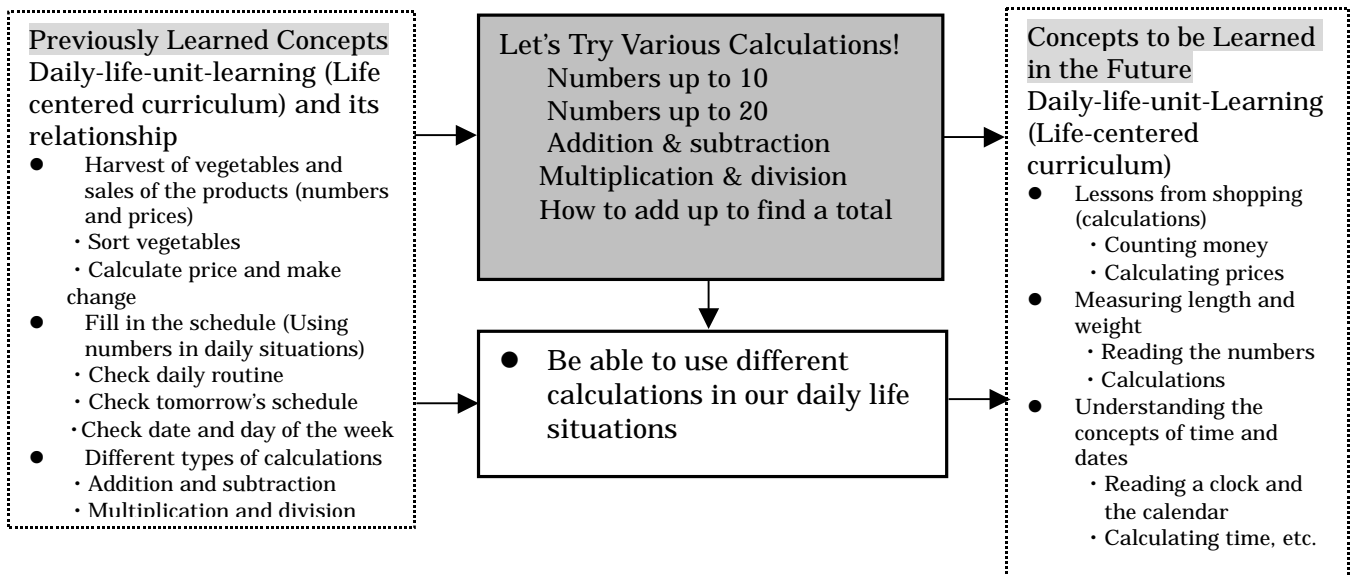


# Apple Class Mathematics Lesson Plan

November 14, 2000 (Tuesday)  
 2<sup>nd</sup> Period Library  
 Instructor: Toshiyuki Kusu  
 Mikiko Oka  
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 Number of Students: 9

1. Name of the Unit: Let's Try Various Calculations
2. Relationship of the Unit to the Curriculum

The learning activities that associated with the content of mathematics were done in not only during the mathematics lessons but also done during the lessons containing the instruction on everyday life and life-centered learning. The curriculums are developed based on individual students' state of learning and they are developed to have a coherent curriculum sequences.



### 3. Instructional Plan

#### Let's Try Various Calculations!

Let's try various calculations . . . . . 3 lessons

- Read numbers up to ten, using the fundamental rules of arithmetic, dividing the students in three groups (instruct individually).
- Write the numbers learned, numbers on the dice, and all calculations in a notebook (Sort students in groups according to their capacities).  
 Create number game cards, dice, and problem cards for *Sugoroku* game
- Understand the rules of the game (in the capacity level group).

Let's play the *Sugoroku* game – 2 lessons (This lesson illustrated here is the second lesson of this topic)

- Play the game in groups (in the capacity level groups).
- Play all together as a class.

Create a chart . . . . . 2 lessons

- Fill in rankings on a chart (as groups).
- Review the number cards and calculation cards (individually).

#### 4. Instruction of this Lesson

##### (1) Title: Let's play the *Sugoroku* game together

*The Sugoroku game:* The *Sugoroku* is a simple board game with pieces moving from circle to circle according to the numbers appearing on dice that are thrown at each player's turn. "Calculation cards" give additional instructions.

##### (2) Goal

While enjoying the game they created, students should learn to count the numbers on the dice, move the pieces according to the numbers on the dice, and solve the problem on the calculation card.

Improvement in number manipulation and calculation skills using the numbers and the calculation cards the students created themselves.

• Based on the skills of the students, we created different goals for each group. (Student A – I)

To be able to use the fundamental rules of arithmetic and draw correct answers • • Student A, B, & C

To be able to do addition up to twenty, and to do single digit subtractions • • • • • Student D, E, & F

To be able to count the numbers on the dice by pointing to the dot with a finger • • • Student G, H, & I

##### (3) Relationship to Goal of Mathematics

Mathematic instruction for the students in this class follows the IEP (Individual Educational Plan) for each individual student developed at the beginning of each semester. Because the IEP for each student is different, each student tends to work on individual tasks. With this approach, students usually are given simple calculations and story problems. We try to give students incentives to learn with different kinds of activities.

With this lesson, students create number cards, the dice, and some calculation problems themselves (within their knowledge level). Through the board game, students use the number cards, the dice to move their pieces, and the calculation cards to solve the problems. We created the lesson plan hoping it would encourage students to be interested in calculations, and would help improve their number manipulation and calculation skills.

The theme of this curriculum study workshop is "to create a lesson plan that makes students enjoy the mathematical learning activities, experience a sense of accomplishment, and improve their logical thinking skills."

(4) Lesson Process

Steps	Activity of the Students	Teacher's Support and Points to Remember	Evaluation View Point
<p>Intro- duction 10 min.</p>	<p>1. Review of the last lesson</p> <ul style="list-style-type: none"> <li>Share their experiences (what they enjoyed) and share their ranking within their group.</li> </ul> <p>Present the rules of the game and how to play it.</p> <ul style="list-style-type: none"> <li>Present each student's role (throw the dice, read the number on the dice, move a piece) – One student (read the instructions on the spots on the game sheet to which a piece is moved, flip the calculation cards) – Two students</li> <li>Present more fun ways to play the game.</li> </ul> <p>2. Posing the task</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p><b>Let's play the <i>Sugoroku</i> game!</b></p> <ul style="list-style-type: none"> <li>Prepare the game sheet</li> <li>Make three groups of three. Listen to the instructions on how to play the game.</li> </ul> <p>Group ( Student G, H, I ) Group ( Student D, E, F ) Group ( Student A, B, C )</p> </div>	<ul style="list-style-type: none"> <li>Show them again how to play the game and present the materials used to reinforce what what they did in the last lesson.</li> <li>Make them present their roles, show how to flip the calculation cards, and point out where to do calculations.</li> <li>When they make mistakes, encourage them to try again.</li> <li>Make them think of different way of playing</li> </ul>	<p>Were the students able to present what they did in the last lesson?</p> <p>Were the students able to understand the game's instructions?</p>
<p>Develop- ment 30 min.</p>	<p>3. Begin the activity</p> <ul style="list-style-type: none"> <li>Throw the dice, count the number on the dice, and move the piece of their group.</li> <li>Count the number on the number card.</li> <li>Fill in the number on the worksheet. ( Student G, H, I )</li> <li>Do the additions and subtractions on the calculation cards.</li> <li>Fill in the answer in the worksheet. ( Student D, E, F )</li> </ul>	<p>Each instructor goes with a group. Talk to the members to make sure that they fill it in correctly.</p> <ul style="list-style-type: none"> <li>Make students point to the dots on the dice when they count</li> <li>If the calculation is too difficult, encourage students to look up their notebook to help the method in them remember what they had learned. Let them use fingers and objects to help calculation.</li> </ul>	<p>Were the students able to fill in the name of their group members?</p> <p>Were the students able to count the number on the dice?</p> <p>Were the students able to calculate accurately?</p>

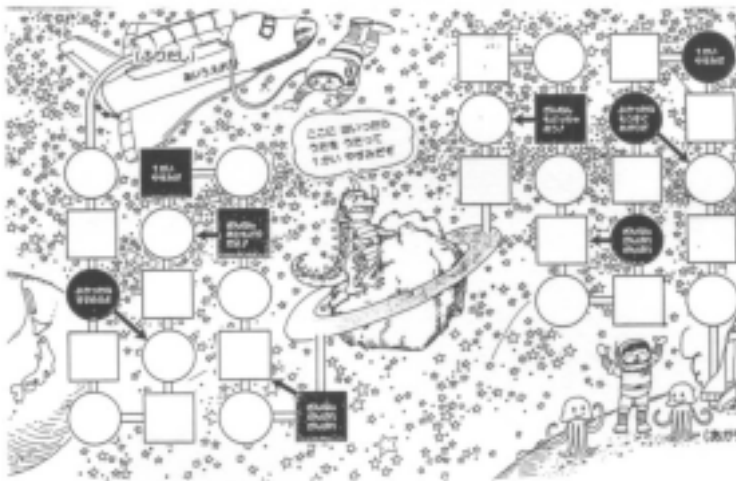
<p>Conclusion 10 min.</p>	<ul style="list-style-type: none"> <li>Do the multiplication and division on the calculation cards.</li> <li>Fill in the answer on the worksheet. ( Student A, B, C )</li> <li>When a piece moves to the goal, finish the game and present the ranking of each group.</li> </ul> <p>4 Review</p> <ul style="list-style-type: none"> <li>Try to resolve problems if they made a mistake or could not get the answer.</li> <li>If the students solved all the problems, try new calculation cards.</li> </ul> <p>5 Looking Back at the Lesson</p> <ul style="list-style-type: none"> <li>Share their thoughts with the class.</li> <li>Present what was good about other students.</li> </ul>	<ul style="list-style-type: none"> <li>If the calculation is too difficult, encourage students to look up their notebook to help the method in them remember what they had learned.</li> <li>Make students review their mistakes step by step.</li> <li>Make students consider why they could not solve the problem and why they made a mistake.</li> </ul>	<p>Were the students able to calculate accurately?</p> <p>Were the students able to tell their group's ranking?</p> <p>Were the students able to share out loud what they enjoyed and what was good about the other students?</p>
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(5) Evaluation

Were the students able to understand instruction, and able to count and calculate, and able to enjoy playing the game?

Were they able to count the number of dots on the dice, and able to read the numbers on the cards, and able to solve the problems on the calculation cards?

(6) The *Sugoroku* game sheet and the Worksheet



Name ( )

Name of group ( )

Group members ( )  
( )

Answer


Ranking ( )