

Subtraction

A sample lesson plan for CLIL LOTE transitions - To be used in the language classroom and/or in other subjects

Subject: Math, topic: subtraction

Level: Kindergarten -Pre A1 (5 year old students)

Duration: 1 hour

This is a lesson plan designed for a kindergarten classroom at Odyssey Charter School (OCS), where the students are approximately five years old. In this classroom, the instructional focus is on mathematics, which is taught in the Greek language. It's important to note that for most of these students, English is their native language, and Greek is being introduced as a foreign language. In this lesson, students will use the Greek Language to discuss about math concepts such as subtraction and will collaborate to solve math problems together.

Main learning objectives for language learning:


- Use target language to solve math problems using subtraction.
- Demonstrate understanding by following directions.
- Language for learning: minus, equals, all together, take away
- Forming sentences in target language to describe the steps they follow to subtract.

Main learning objectives for content learning:

- Understand the strategy of subtraction by using different ways to solve the same math problem

Main learning objectives for plurilingual education:

- Students work together and use both the target and their home languages, to solve math problems.

Learning objectives for language learning, for content learning, and for plurilingual education	Icons	Activities	Tools/resources
<p>Language Objectives:</p> <ul style="list-style-type: none"> - Use target language to solve math problems using subtraction. - Use academic vocabulary, such as terms to talk about subtraction, as well as numbers to solve math problems. <p>Content Objectives:</p> <ul style="list-style-type: none"> - Use materials to depict the steps for subtraction. - Write math equations on white boards. - Completing worksheet 		<p>Activity 1</p> <p>The teacher draws attention to the stars that students have accumulated. These stars are magnetically affixed to the classroom's whiteboard and serve as a visible indicator of their performance. Each day, students commence with 10 stars, understanding that for exemplary adherence to instructions, the teacher may deduct a few stars. When they reach zero stars, they become eligible for some free playtime.</p> <p>Then, the teacher passes 10 cubes to each student and asks students to count them “1...10”. She takes 4 stars away and asks students to take 4 cubes away</p>	<ul style="list-style-type: none"> - Projector - Whiteboard - Worksheets 1 and 2 - Videos - Playdough <p>Worksheet 1</p> <p>Worksheet 2: exit ticket</p>

as she writes: $10 - 4 = _$ on the classroom's whiteboard.

She asks students to count how many cubes are left and by raising their cubes up to say the whole sentence in Greek e.g., "*ten minus four equals six*". She continues with the cubes left and takes more out (e.g., she takes 2 more out) and asks students to repeat the same process by saying the whole subtraction sentence in Greek.

Activity 2

The teacher asks students to pick a marker (pick a color), an eraser and a dry erase pocket sleeve and go back to their sign seats. She writes a math equation on the whiteboard and asks them to do the same on their dry erase pocket sleeves (e.g., $10 - 5 = _$). For every

numeral she writes, the teacher makes a drawing. For example, she makes 10 little happy kids and says that five went home so she crosses them out.

She asks students to make similar drawings and remind them that since 5 kids leave, they will also need to cross them out. The teacher expects students to count the remaining kids and give the whole answer in Greek “ten minus 5 equals 5” and raise their dry erase pockets so that the teacher can check their answers.

She repeats the same process with different equations and ask students to give their own feelings to the kids they draw.

The teacher walks around the classroom and provides students with help when she sees that they need it.

		<p>Activity 3 Students put the materials back into their baskets and go back to their seats. The teacher passes worksheets with subtraction problems and number bond templates and helps students understand where to write each number and how to solve each problem (by using their finger or by making drawings). Students start filling this worksheet out with their teacher as a whole group but gradually, the teacher gives them more time to do the last parts by themselves and supports them whenever they need it since she walks around. After that activity, students put their materials back and they might need a 5 min break.</p> <p>Activity 4</p>	
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The teacher divides students in small groups of three and passes in each group: a marker, an eraser and a dry erase pocket sleeve with a number bond template, ten cubes and another dry erase pocket sleeve with the form: $_ - _ = _$.

She presents a math problem and asks students to work together as a group to solve this problem by using the materials given (e.g., $5-2=_$).

The students work together and use both the target and their home languages to solve math problems.

The teacher walks around to make sure that all students have the opportunity to contribute on the math problem solution and whoever is done has a 5 -7 min break.

Activity 5

		<p>The teacher gives an exit ticket (a small evaluation), where students are asked to solve similar math problems individually and when they are done, they give them to their teacher.</p>	
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Final products that, e.g., could be added to the students' portfolio (dossier):

The students' worksheets.

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