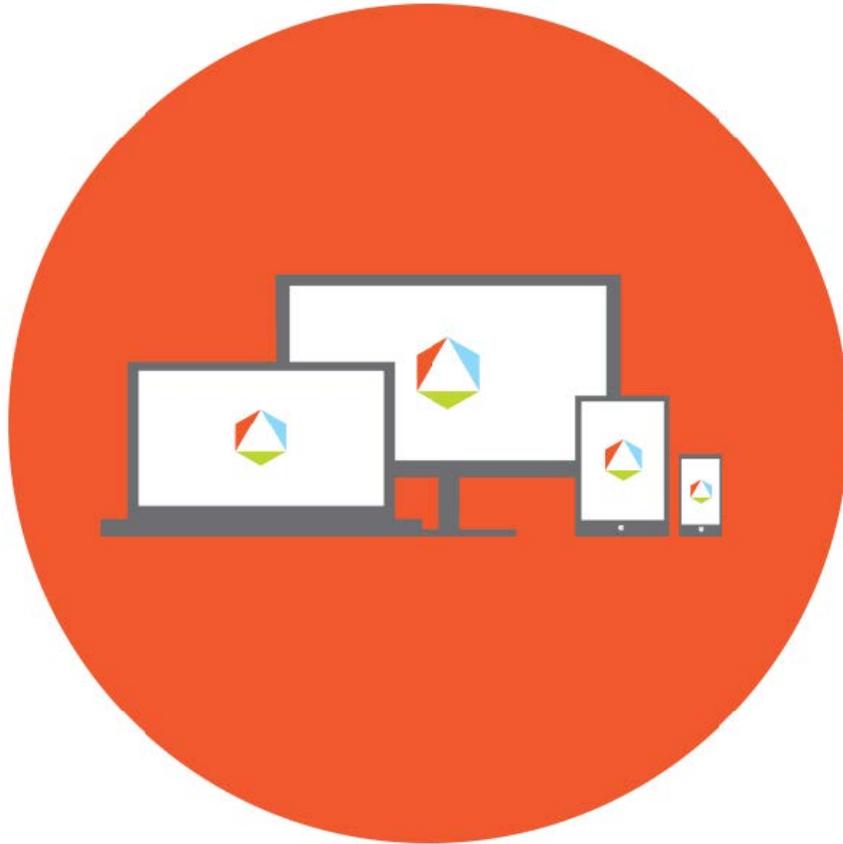




FIRSTPATH
AUTISM



Lesson Guide

78. Simple subtraction

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Simple Subtraction

Overview

<p>Teaches:</p>	<p>Using both manipulatives (tangible objects) as well as written numerals, this lesson teaches the child to subtract one quantities from another to conclude the difference quantity.</p>
<p>Before beginning:</p>	<p>All Pre-Math Skills (including Counting, 1:1 Correspondence, Number ID, Number to Quantity Match, Number Sequencing) should be mastered (or at least solidly familiar) before introducing this lesson. Understanding More Than and Less Than may be a helpful skill to understand as well.</p>
<p>Why it's important:</p>	<p>Subtraction is a foundation for accounting, understanding interacting quantities, and more advanced math functions such as division and fractions. Subtraction is a necessary skill when handling money, understanding deficits, and organizing budgets.</p>
<p>Materials needed:</p>	<p>Various 3D and 2D manipulatives (examples: counting bears, unifix cubes, marbles, flashcards depicting groups of identical items, flashcards with numerals). In addition, a dry erase board can be very helpful in this lesson (for the teacher to express the number equations utilizing the "-" and "=" symbols, as well as for the more advanced student to repetitively practice expressing those symbols and number sentences.</p>
<p>Generalization activities:</p>	<p>Math worksheets, subtracting money from a budget, counting depleting quantities of food, subtracting and accounting for traded collectables.</p>

Steps

Prepare

1. Ensure that the child is ready to "earn and learn": a reinforcer assessment has been recently completed, and identified highly-preferred items and activities are ready and available.
2. Have data collection ready, either via tablet or pen/paper.
3. Have lesson materials prepared and available.
4. Sit facing the child, in a quiet place free of distractions.
5. Make sure the child is ready to attend, ideally looking at teacher and not

engaging in any other activities.

Teach

1. When teaching this lesson, using active observation and active restraint is important!
2. Present 2 images or 2 collections/sets of objects.
3. Allow child to briefly observe the images/objects.
4. Deliver target instruction/question.
5. Allow the child 3-5 seconds to respond.
6. Provide feedback on how the child responded:
 - Correct response:** enthusiastic praise and/or give the child his chosen reward
 - Incorrect or No response:** corrective feedback, model or prompt of correct response
7. Record data.
8. Begin again at step 1.

Typical Order of Learning Targets:

NOTE: For simple subtraction you should avoid presenting a question that will result in a negative. For example, presenting $5-3$ to reach 2 is an appropriate question. However, presenting $3-5$ to reach -2 may be confusing and should be addressed during more advanced lessons

- Identify difference of two quantities (sets of 1-10 objects, one of the quantities being only 1 objects)
- Identify difference of two quantities (sets of 1-10 objects, one of the quantities being 1-2 objects)
- Identify difference of two quantities (sets of 1-10 objects, one of the quantities being 1-3 objects)
- Identify difference of two quantities (sets of 1-10 objects, one of the quantities being 1-5 objects)
- Identify difference of two quantities (sets of 1-10 objects, one of the quantities being 1-8 objects)
- Identify difference of two quantities (sets of 1-10 objects)
- Continue mastered targets with greater quantities and/or numerals if needed

