

Strand A3: Teaching Time

Functional Academics – Beginning Math



Materials (at home):	Provided materials:
<ul style="list-style-type: none">• Reinforcers• Token board (optional)• 10 identical items (pencils, blocks, etc.)	<ul style="list-style-type: none">• Strand A3 lesson plan• Strand A3 REEL• Data collection sheet

Goal: The student will count with 1:1 correspondence, identify and/or label numbers, match objects to numbers, and count sets of objects for numbers 1-10.

Progression of skills:

Work on each phase until the student meets the criteria for mastery, and then move onto the next phase.

Phase 1: Counting functional objects (1-10)

Target skill goal: The student will count functional objects when 1-10 objects are presented in 90% of trials across 2 consecutive weekly probes.

Phase 2: Identifying and/or labeling numbers (1-10)

Target skill goal: The student will identify and/or label numerals 1-10 when given the cue “point to X” and/or “what number is it?” in 90% of trials across 2 consecutive weekly probes.

Phase 3: Matching objects to numbers (1-10)

Target skill goal: The student will match objects to the correct numeral for numbers 1-10 when given the cue “match objects to number” in 90% of trials across 2 consecutive weekly probes.

Phase 4: Understanding sets of objects

Target skill goal: The student will provide the correct number of items when given the cue “give me X [a specific number of items]” in 90% of trials across 2 consecutive weekly probes.

Embedded skills:

During this lesson continue to work on embedded skills such as attending and social communication (see the teacher guide for more information).

Notes:

1. The teacher will provide direct instruction to the student. If the student is unable to attend to remote instruction from the teacher, modify the following lesson plan to include more guidance and coaching for the caregiver to provide direct instruction.
2. See the teacher guide regarding errorless learning if the student has challenges with a specific math concept.

Phase 1: Counting functional objects (1-10)

Note: If the student is not yet imitating language, replace verbal language with an augmentative communication device or skip this phase and move onto Phase 2: Option 1.

1. Gain the student’s attention and say, “Count the objects.”
2. If the student responds correctly, repeat the number and direct the caregiver to provide reinforcement (i.e. “Five! Good job! Here is your [reinforcer]”).
3. If the student responds incorrectly or does not respond:
 - a. Repeat the cue “count the objects” one time.

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- b. Coach the caregiver to help the student point to each item on the screen while counting and provide social praise.
- c. Try again without prompting.

Phase 2: Identifying and/or labeling numbers (1-10)

Note: Prior to starting, choose the option that best meets the student’s needs. Select option 1 if the student is not yet imitating words. Select option 2 if the student can imitate words verbally or using an augmentative communication system. Trials may be presented using a combination of these options as students acquire the ability to recognize and name items.

Option 1: Receptive language trials only

1. Gain the student’s attention and say, “Point to X” where X is the number between one and ten (i.e. “Point to five”).
2. If the student responds correctly, label the number and direct the caregiver to provide reinforcement (i.e. “Five! Good job! Here is your [reinforcer]”).
3. If the student responds incorrectly or does not respond:
 - a. Repeat the cue “point to X” one time (i.e. “Point to 5”).
 - b. Coach the caregiver to help the student point to the correct number and provide social praise.
 - c. Try again without prompting.

Option 2: Receptive and expressive language trials

1. Gain the student’s attention and say, “Point to X” where X is a number between one and ten (i.e. “Point to five”).
2. If the student points to the correct number, immediately ask, “What number?”
3. Following a correct response:
4. If the student responds correctly, repeat the number and direct the caregiver to provide reinforcement (i.e. “Five! Good job! Here is your [reinforcer]”).
5. If the student responds incorrectly or does not respond:
 - a. Repeat the cue “point to X” one time.
 - b. Coach the caregiver to help the student point to the correct number.
 - c. Immediately re-state the question and the answer (i.e. “What number? Five!”).
 - d. Give the student time to imitate the number word (i.e. “five”) and provide social praise.
 - e. Try again without prompting.

Phase 3: Matching objects to numbers (1-10)

Note: Prior to starting, choose the option that best meets the student’s needs. Select option 1 if the student is not yet imitating words. Select option 2 if the student can imitate words verbally or using an augmentative communication system. Trials may be presented using a combination of these options as students acquire the ability to recognize and name items.

Option 1: Receptive language trials only

1. Gain the student’s attention and say, “Count the objects.”
2. If the student responds correctly, immediately say, “Point to the number.”
3. If the student points to the correct number, label the number and direct the caregiver to provide reinforcement (i.e. “Five! Good job! Here is your [reinforcer]”).
4. If the student responds incorrectly or does not respond:
 - a. Repeat the cue “count the objects” one time.
 - b. Coach the caregiver to help the student to point to each object and count.

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- c. Immediately say, “Point to the number” and coach the caregiver to help the student point to the correct number and provide social praise.
- d. Try again without prompting.

Option 2: Receptive and expressive language trials

1. Gain the student’s attention and say, “Count the objects.”
2. If the student responds correctly, immediately ask the student, “How many did you count?”
3. If the student says the correct number, repeat the number and direct the caregiver to provide reinforcement (i.e. “Five! Good job! Here is your [reinforcer]”).
4. If the student responds incorrectly or does not respond:
 - a. Repeat the cue “count the objects” one time.
 - b. Coach the caregiver to help the student point to each object and count.
 - c. Immediately re-state the question and the answer (i.e. “How many did you count? Five!”).
 - d. Give the student time to imitate the number word (i.e. “five”) and provide social praise.
 - e. Try again without prompting.

Phase 4: Understanding sets of objects (1-10)

Note: The caregiver will supply up to ten identical items that can be physically manipulated (e.g. pencils, blocks, etc.), and will provide the cues along with the teacher during this lesson.

1. Coach the caregiver to place up to ten identical items on the table in front of the student.
2. Explain the activity using the following script to coach the caregiver:
 - a. “We are going to work on counting groups of objects. You will tell the student to give you a specific number of items out of the total items you’ve laid out in front of the student.”
 - b. “Say, ‘Give me X’ in which X is the quantity of items you want the student to give you. For example, if you put 10 pencils on the table, you are going to say, ‘Give me 5 pencils.’”
3. If the student responds correctly, direct the caregiver to repeat the number and provide reinforcement (i.e. “Tell the student, ‘Five! Good job! Here is your [reinforcer]’”).
4. If the student responds incorrectly or does not respond, coach the caregiver to:
 - a. Repeat the cue “give me X” one time (i.e. tell the caregiver, “Hold out your hand and tell the student to give you five pencils just once”).
 - b. Coach the caregiver to help the student pick up the correct number of items while counting and provide social praise.
 - c. Try again without prompting.