SCO: **N1: Say the number sequence by 1s starting anywhere from 1 to 10 and from 10 to 1.**

[C, CN, V]

**[C]** Communication **[PS]** Problem Solving **[CN]** Connections **[ME]** Mental Math

**[T]** Technology **[V]** Visualization **[R]** Reasoning and Estimation

**Scope and Sequence of Outcomes**

|  |  |  |
| --- | --- | --- |
|  | **Kindergarten** | **Grade One** |
|  | **N1** Say the number sequence by 1s starting anywhere from 1 to 10 and from 10 to 1. | **N1** Say the number sequence  from 0 to 100 by: 2s, 5s and 10s, forward and backward, using starting points that are multiples of 2, 5 and 10 respectively; 10s using starting points from 1 to 9; 2s starting from 1. |

**ELABORATION**

***Guiding Questions:***

*• What do I want my students to learn?*

*• What do I want my students to understand and be able to do?*

Most children arrive at school with prior knowledge of the number sequence one to ten. This is an important prerequisite for counting items in a set. As early as two years of age, children can repeat words such as one, two, and three; however, children do not always understand the quantity represented by the number. For this reason, it is necessary to assess each child individually in order to determine their understanding of number, not only in the oral expression of numbers but also in counting abilities and sense of number described in more detail in other outcomes.

During the course of daily tasks, students need frequent practice saying the **number sequence** from any given number up to 10. Students should experience situations in which they recite:

* from 1 onward: 1, 2, 3 . . .
* from 10 backward: 10, 9, 8 . . .
* from any number to 10: for example, 4, 5, 6, …
* from any number to 1: for example, 6, 5, 4…

The challenge is to integrate this outcome with other outcomes. Children learn the names of numbers by actually counting objects and working with numbers. Learning activities must be integrated to address more than one outcome at a time.

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**ASSESSING PRIOR KNOWLEDGE AND SKILLS**

Before introducing new material, consider ways to assess and build on students' knowledge and skills. For example:

* Ask students to begin at 1 and say the numbers to 10.
* Ask students to begin at 3 and say the numbers to 10.
* Ask students to begin at 10 and say the numbers back to 1.
* Ask students what number comes after 7; before 7.

**ACHIEVEMENT INDICATORS**

***Guiding Questions:***

* *What evidence will I look for to know that learning has occurred?*
* *What should students demonstrate to show their understanding of the mathematical concepts and skills?*

Use the following set of indicators as a guide to determine whether students have met the corresponding specific outcome.

* Name the number that comes after a given number, one to nine.
* Name the number that comes before a given number, two to ten.
* Recite number names from a given number to a stated number (forward – one to ten, backward – ten to one) using visual aids.

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**PLANNING FOR INSTRUCTION**

***Guiding Questions***

• *What learning opportunities and experiences should I provide to promote learning of the outcomes and permit students to demonstrate their learning?*

*• What teaching strategies and resources should I use?*

*• How will I meet the diverse learning needs of my students?*

**Choosing Instructional Strategies**

Consider the following strategies when planning lessons:

* Have children:

- count backwards while taking items out of the water table

- count down to special days

- count while exercising

- count on while determining the total on a pair of dice

* Use counting songs, finger plays, and rhymes, such as “One, Two, Buckle My Shoe”, “Ten Little Monkeys”, or “Six Little Ducks” to practice counting forward and backwards.
* Use children’s literature to assist students in learning the number sequence.
* Provide opportunities for children to hear and speak mathematical vocabulary in a natural setting through daily calendar routines. The calendar is an effective visual aid for counting. It is not expected that children count beyond 10 at this level; however, a calendar exposes students to counting to and from larger numbers each day as the month progresses. Good questioning techniques during calendar activities provide occasions for children to learn: the number that comes ‘before’; the number that comes ‘after’; and the number(s) that come in between.
* Ensure students have frequent opportunities to say the number sequence, forwards and backwards. For example:
* count backwards while taking items off a table or putting items away
* count down to special days
* count on while determining the total on a pair of dice
* count while skipping, hopping, bouncing a ball, or taking part in other physical activities

**Suggested Activities**

* Begin counting, and have students continue up to the number 10. For example, “3, 4, 5 …” This activity can be repeated by reversing the number sequence. For example, “5, 4, 3, …”
* Seat 5-10 students in chairs in front of the class. As the whole class counts, the seated students stand up one at a time. Reverse this activity and have the students at the front, sit down, one at a time as the class counts backwards.
* Have the students count onward and backward while simultaneously creating the count on a calculator.
* Make up riddles for numbers that come before and after a given number less than 10. For example, “I am three. What comes before me?” “I am four. What is one more?”
* Count some items with the students. Cover the starting quantity of items. Have the students count on as you add more items (up to 10).

**Possible Models**: counters, calendar, calculators

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**ASSESSMENT STRATEGIES**

Look back at what you determined as acceptable evidence.

***Guiding Questions***

*• What are the most appropriate methods and activities for assessing student learning?*

*• How will I align my assessment strategies with my teaching strategies?*

Assessment can and should happen every day as a part of instruction. A variety of approaches and contexts should be used for assessing all students: as a class, in groups, and individual students. Consider the following **sample activities** (that can be adapted) for either formative (for learning; as learning) or summative (of learning) assessment.

**Whole Class/Group/Individual Assessment**

* Play the game: “Find my mistake”. Say a number sequence (1 – 10) incorrectly and have children identify your error and correct it. For example, “1, 2, 3, 5, 4, 6” or “7, 6, 5, 3, 4, 2”.
* Observe whether or not students:
* recognize situations where they recite the number sequence;
* need to start from the beginning when saying the number sequence;
* correct one another as they say the number sequence together.
* Begin reciting the numbers to 10, but omit some numbers. Have the student tell you the numbers you omit.
* Ask the student to begin saying the number sequence at a given number and continue up to 10 (e.g., have the student begin at 4, and continue by saying, 5, 6, 7, 8, 9, and 10).
* Ask the student to recite backwards starting at a given number (10 and less).
* Ask the student to tell you what number comes after a given number and before a given number.

**FOLLOW-UP ON ASSESSMENT**

***Guiding Questions***

*• What conclusions can be made from assessment information?*

*• How effective have instructional approaches been?*

*• What are the next steps in instruction?*