

Unit: Mathematics-4.2

Content Area: **Mathematics**
Course(s):
Time Period: **Trimester 1**
Length: **ongoing**
Status: **Published**

Brief Summary of Unit

This unit was designed to develop children’s understanding of number relationships and operations.

In this course, students are provided with opportunities to develop skills that pertain to a variety of careers. When completing this course, students can make informed choices and pursue electives that further their study and contribute toward the formation of career interest.

Standards

The standards in this unit reflect a developmental progression across grades/ levels and make interdisciplinary connections across content areas including social sciences, technology, career readiness, cultural awareness and global citizenship.

MA.K-12.1: Make sense of problems and persevere in solving them.

MA.K-12.5: Use appropriate tools strategically.

LA.RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

MA.PK.4.2	Children demonstrate an initial understanding of numerical operations.
MA.PK.4.2.1	Represent addition and subtraction by manipulating up to 5 objects:
MA.PK.4.2.1.a	putting together and adding to (e.g., “3 blue pegs, 2 yellow pegs, 5 pegs altogether.”); and
MA.PK.4.2.1.b	taking apart and taking from (“I have four carrot sticks. I’m eating one. Now I have 3.”).
MA.PK.4.2.2	Begin to represent simple word problem data in pictures and drawings.

Transfer

Essential Questions

- How do I build number knowledge through addition and subtraction?

- Why do I need to be able to count objects?

Essential Understandings

- Children will represent addition and subtraction by manipulating up to 5 objects putting together and adding to (e.g., “3 blue pegs + 2 yellow pegs equals 5 pegs altogether and taking apart and taking from (“I have four carrot sticks. I’m eating one. Now I have three.”).

Students Will Know

- How to combine and separate quantities
- That concrete objects can represent addition/subtraction

Students Will Be Skilled At

- Combining and separating objects into group
- Joining two sets of objects
- Separating two sets of objects

Evidence/Performance Tasks

This course is designed to promote skill attainment. Student progression and pace through which they proceed through the performance tasks is based on their affinity for and ability to reach skill attainment. The teacher will determine formative and summative skill attainment; alternative assessments will be incorporated for each student based on their strengths and challenges.

- answering the essential questions
- completing center activities that involve “putting together” and “taking apart”
- participating in group activities that involve “putting together” and “taking apart”

Learning Plan

- Develop addition and subtraction stories with small groups of children using story mats and flannel board scenes with small quantities of objects and pictures/drawings.
- Engage informally with children during center time to explore joining and taking apart small quantities of concrete objects.
- Model addition for children by using counting to combine numbers (e.g., “Maria has two blocks and Justin has three. There are five blocks altogether: 1, 2, 3, 4, 5.”).
- Model subtraction for children by using counting to separate quantities of objects (e.g., “There are five cars on the carpet: 1, 2, 3, 4, 5. I am putting two cars in the basket. There are three cars left on the carpet.”).
- Provide opportunities for children to independently explore addition and subtraction (e.g., using small

manipulatives with egg cartons, muffin tins and story mats; interacting with children using computer software and handheld device applications).

- Provide writing materials and/or handheld devices with appropriate applications in classroom centers so that children can choose to view, solve and create addition and subtraction stories.
- Using fingers, chalk, wipe-off markers and/or whiteboard technology, tell and draw addition and subtraction stories with small groups of children.

Suggested Strategies for Modifications

This link includes content specific accommodations and modifications for all populations:

https://docs.google.com/spreadsheets/d/1vp4_sVkiJIcevefjdpDEpUQYy5Jja39vzPvk-fFJrjE/edit

- additional time on task
- images and visual aids
- Incorporate accommodations and modifications of the students' IEPs
- multiple trials
- one-to-one instruction and assistance
- preferential seating
- repetition of information
- sensory items
- use of varied manipulatives