Unit 1 (IReady) Numbers Within 20 (Addition, Subtraction, and Data)

Content Area: **Mathematics**
Course(s): **Mathematics 2**
Time Period: **September**
Length: **30 Days**
Status: **Published**

Unit Overview

In Unit 1, students will learn to:

- Count on to subtract.
- Use fact families to add and subtract.
- Make a ten to add and subtract.
- Solve a one-step word problem.
- Draw and find information from pictures and bar graphs.
- Use addition and subtraction to solve a word problem with more than one step.
- Identify shapes and their attributes, put shapes together to make composite shapes, understanding breaking shapes into equal parts

Priority Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.B	Add and subtract within 20
MATH.2.NBT.B	Use place value understanding and properties of operations to add and subtract
MATH.2.DL.B	Represent and interpret data

Learning Targets

- I can add 2 digit numbers and break apart 2 digit numbers into tens and ones as a place value strategy for adding.
- I can add and subtract 2-digit numbers using various strategies after analyzing word problems to determine operation needed to solve them.
- I can add and subtract 2-digit numbers using various strategies.
- I can add by breaking apart addends and using place value.
- I can add using regrouping and open number line.
- I can draw and use bar graphs and picture graphs.

- I can fluently add two digit numbers.
- I can solve one and two step word problems.
- I can subtract 2-digit numbers using various strategies.
- I can use mental math strategies to add one-digit numbers within 20.
- I can use mental math strategies to subtract one-digit numbers within 20 and understand the relationship between addition and subtraction.

Essential Questions

- How can I model a problem with pictures to help me solve the problem?
- How can I organize data into graphs to answer questions?
- How can I use what I know about relationships between addition and subtraction to help me solve problems?
- What strategies can I use to help me add and subtract?

Materials and Resources

- Additional Math Journal
- Base-10 blocks
- Data Math Games
- Digital Clock Template
- Geoboards
- I-Ready Math Program
- Non-standard units of measurement
- Student Judy Clocks
- Telling Time Math Games

Unit Assessments (Required)

- Lesson Quizzes
- Mid-Unit Assessment
- My Learning Path weekly progress
- Unit Assessment

Learning Plan (Skills and Activities)

IReady Unit 1 Numbers Within 20

(Addition, Subtraction, and Data)

Time Frame	Lesson	Standard(s)	Target
IReady Unit 1 (About 34 Days)	Lesson 1 (6 Days)	Standard: 2.OA.A. Represent and solve problems involving addition and subtraction 2.OA.B. Add and subtract within 20	Target: I can fluently add and subtract within 20 using mental strategies. I can know by memory all sums of two one-digit numbers (by the end of grade 2).
	Lesson 2 (6 Days)	Standard: 2.OA.A. Represent and solve problems involving addition and subtraction 2.OA.B. Add and subtract within 20	Target: I can fluently add and subtract within 20 using mental strategies. I can know by memory all sums of two one-digit numbers (by the end of grade 2).
	Lesson 3 (6 Days)	Standard: 2.OA.A. Represent and solve problems involving addition and subtraction 2.OA.B. Add and subtract within 20	Target: I can use addition and subtraction within 100 to solve one- and two- step word problems (involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.
	Lesson 4 (6 Days)	Standard: 2.DL.B.4 ~Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information	Target: I can draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories.

	presented in a bar graph.	I can solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
Lesson 5 (6 Days)	Standard: 2.OA.A. Represent and solve problems involving addition and subtraction 2.OA.B. Add and subtract within 20	Target: I can use addition and subtraction within 100 to solve one- and two- step word problems (involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Interdisciplinary Connections

Connections to Reading: Apply comprehension startegies to solve word problems. Incorporate literature relating to the math skill in lesson, such as, books on time.

Connections to Writing: Students write descriptions of composite shapes they have made.

Connections to Science: Incoporate time in experiments/investigations.

Strategies for Multilingual Learners

- Communicating High Expectations for Each Student to Close the Achievement Gap
- Establishing & Maintaining Effective Relationships in a Student Centered Classroom
- Helping Students Engage in Cognitively Complex Tasks
- Helping Students Examine their Reasoning
- Helping Students Practice Strategies, Skills, & Processes
- Helping Students Process New Content
- Helping Students Revise Knowledge
- Identifying Critical Content from the Standards
- Organizing Students to Interact with Contact
- Previewing New Content
- Providing Feedback & Celebrating Success

- Reviewing Content
- Using Engagement Strategies
- Using Formative Assessment to Track Progress
- Using Questions to Help Students Elaborate on Content

21st Century Skills or Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

WRK.9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.TL.3	Enter information into a spreadsheet and sort the information.
TECH.9.4.2.IML.1	Identify a simple search term to find information in a search engine or digital resource.
TECH.9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
TECH.9.4.2.IML.4	Compare and contrast the way information is shared in a variety of contexts (e.g., social, academic, athletic) (e.g., 2.2.2.MSC.5, RL.2.9).

Strategies for Students in Need of Intervention

- Provide a list of keywords in word problems. For example: "In all, altogether means addition"
- Small Group Instruction based on strategy
- Small group instruction for Fact Fluency
- Small group instruction for word problems
- Extended pacing of lessons
- Hands on manipulatives
- Provide grid paper
- Reduce the amount of problems
- Use of a number line
- Use of approaching level materials/assignments
- Use of hundreds chart
- Use of visual aids for vocabulary building

Technology Integration

Website Name	www.brainden.com
Math playground	www.adaptedmind.com
Brain Den	www.youtube.com
Fun brain	www.mathgametime.com
Reflex Math	www.reflexmath.com

- . 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose.
- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Strategies for Enrichment

- Small Group Instruction to extend concept for Enrichment