K-2 Curriculum

SUPPLEMENTAL LESSON PLANS: MATH

These additional lesson plans will enable your students to develop math skills alongside social-emotional skills. This resource is designed to provide additional practical activities aligned with Lessons 1-10. Common Core Math Standards are listed in the supplemental lessons.

Lesson	Title	Math concept
1	Fight or Flight! Introduction to Brain Science	Time
2	The Dinosaur Brain	Counting
3	The Feelings Brain	Shapes
5	My Mouth is Like a Volcano	Skip counting
6	The Worry Train	Algebraic thinking
9	Focus with Firecracker breathing	Graphing skills

Supplemental Math lesson	
Lesson 1	**Fight or Flight! Introduction to Brain Science**

Math Standards (Icon)	**CCSS.MATH.CONTENT.1.MD.B.3.** Measurement and Data Standard Description: Tell and write time in hours and half-hours using analog and digital clocks.
	CCSS.MATH.CONTENT.2.MD.C.7. Measurement and Data Standard Description: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Concept: Time **Add to:** Shaking and dancing activity	**DISCUSS & EXPLAIN:** Begin by discussing the concept of time and the importance of understanding durations. Explain that shaking and dancing can be done for a specific duration, and it can help reduce the emotions associated with fight or flight.
	1. **Analog and Digital Clocks**: Introduce analog and digital clocks to the students. Show them examples of both types and explain how they represent time. Demonstrate how to read the hour and minute hands on an analog clock and how to read the digital time display.
	2. **Set a Duration:** Before starting the shaking and dancing activity, announce a specific duration for the activity, such as 3 minutes. Explain that they will be shaking and dancing for this amount of time, and they can continue until they hear a signal indicating the end of the duration.
	3. **Monitor Time:** Use a timer, clock, or any timekeeping device to track the duration of the shaking and dancing activity. Display the time on an analog or digital clock where students can see it.

	4. **Reflection**: After the activity, gather the students and discuss their experience. Ask questions like: ○ How long did we shake and dance? ○ What time did we start? What time did we finish? ○ How did the duration of shaking and dancing make you feel? ○ Did you notice any changes in your emotions during the activity?

Supplemental Math lesson	
Lesson 2	**The Dinosaur Brain**

Math Standard (Icon)	**Common Core Math Standard: K.CC.A.2**. Count forward beginning from a given number within the known sequence (a backwards counting activity aligns with the Counting and Cardinality standard for Kindergarten)

Concept: Counting **Add:** Number sequence	**DISCUSS & EXPLAIN:** Begin by reviewing the concept of counting. Explain that students will practice counting backwards from a given number sequence.
	1. Gather the students in a circle and display number cards.
	2. Explain that they will practice counting backwards from a given number sequence.
	3. Review the concept of counting forwards from 1 and explain that counting backwards is the opposite. We start from a big number and count down.
	4. Display a number card and show it to the students (e.g “5.”) Begin counting backwards from the given number a a group, e.g. “5,4,3,2, 1”
	5. Repeat the process starting with different numbers while modeling and allowing students to practice counting out loud, using whisper voices, and silently.

Supplemental Math lesson	
Lesson 3	**The Feelings Brain**

Math Standards	**CCSS.MATH.CONTENT.K.G.A.2.** Correctly name shapes regardless of their orientations or overall size. **CCSS.MATH. CONTENT.1. G.A.** Distinguish between defining attributes versus non-defining attributes, build and draw shapes to possess defining attributes. **CCSS.MATH. CONTENT.2. G.A.** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.

Concept: Shapes **Add to:** Experiential activity	**DISCUSS & EXPLAIN:** Begin by discussing rainbows and reviewing the concept of shapes. Reinforce the concepts related to shapes by providing a foundation for understanding the concept of an arc, which can be related to a rainbow's shapes.
	1. Show pictures of rainbows to familiarize students with the shape and colors.
	2. Explain that rainbows are shaped like arcs made up of different colors. Show them other items shaped like squares, rectangles, circles, and arcs. Have them discuss the similarities and differences and identify the arcs.
	3. Distribute drawing paper and crayons to your students. Instruct them to use a pencil to lightly draw an arc shape on their paper which looks like the shape of a rainbow.
	4. Teach students the color order of a real rainbow (ROYGBIV) and encourage them to draw and color their rainbows using the appropriate colors matching their crayons with the first letter of each color.

	5. Once the rainbows are finished, ask students to share their artwork, talk about the shapes, and appreciate the different sizes and ways their fellow students created their rainbows.

Supplemental Math lesson	
Lesson 5	**My Mouth is Like a Volcano**

Math Standards	**CCSS.MATH.CONTENT.K.CC.A.1**. Count to 100 by ones and tens. **CCSS.MATH.CONTENT.2NBT.A.2.** Count within 1000; skip-count by 5s, 10s, and 100s.

Concept: Skip counting **Add to:** Volcano Breathing	**DISCUSS & EXPLAIN:** Begin by reviewing the concept of skip counting. Explain that students will practice skip counting using Volcano Breathing.
	1. Make sure you have open space for jumping and spread large numbers of cards on the floor in random order.
	2. Play some nature music to introduce the activity and create a relaxing atmosphere.
	3. Instruct your students they will take turns being the “caller” and the “jumpers.”
	4. The caller will say a multiple of 10 (or 5s, or 100s, depending on your learning goal), and the jumpers will jump to the corresponding number card. Model this activity for the students before choosing a caller.
	5. Instruct the students to practice Volcano Breathing while the caller counts out loud by 10s, starting with the corresponding number card. For example if the caller says 50, the skip counting begins at 50. When the caller reaches 100 (or 1000, if counting by 100) everyone should jump up together similar to the Volcano Breathing exercise.
	6. **Reflection**: After the activity, gather the students and discuss their experience. Ask questions like: ○ What was it like to be the caller? ○ What was it like to be the jumper? ○ What was it like to do Volcano Breathing?

Supplemental Math lesson	
Lesson 6	**The Worry Train**

Math Standards	**K.OA.A.2.** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. **1.OA.A.1.** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Concept: Algebraic thinking **Add to:** Dragon Breathing	**DISCUSS & EXPLAIN:** Begin by discussing math concepts of addition and subtraction. Explain that students will practice math using Dragon Breathing.
	1. Use dragon-themed word problems to engage students in mathematical thinking related to stress release. For example, "If a worry train has 5 worries on it and a dragon blows away one worry, how many worries are left on the train?"
	2. You can provide visuals or invite the students to draw pictures to help them solve the math problem.
	3. Use a variety of dragon word problems to practice addition and subtraction.

Supplemental Math lesson	
Lesson 9	**Firecracker Breathing**

Math Standard	**CCSS.Math.Content.2.MD.D.10.** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories.

Concept: Graphing skills **Add to:** Experiential activity	**DISCUSS & EXPLAIN:** Begin by explaining to your students that they will be measuring and counting their breath rates.
	1. Demonstrate how to count the number of breaths taken in a minute and explain that this represents their breath rate. Model the process by counting your own breaths for a minute, ensuring students understand the concept.
	2. Instruct students to find a comfortable sitting position and prepare to measure their breath rates. Start the timer or stopwatch for one minute, and have students count and record the number of breaths they take during that time. Circulate the classroom to provide assistance and ensure accurate measurements.
	3. Provide each student with a recording sheet to write down their breath rates. Introduce the concept of a bar graph and its purpose in representing data visually.
	4. On a large chart paper or whiteboard, create a sample bar graph together, labeling the vertical axis with breath rates and the horizontal axis with student names.
	5. Experiment with Firecracker Breathing by creating a bar graph before and after the activity.

	Reflection: After the activity, gather the students and discuss their experience. Ask questions like: • What is similar between the two graphs? • What is different? • What was one thing that surprised you about this experiment?