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| **Grade K Module 6: Analyzing, Comparing, and Composing Shapes** | | | | | |
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TEKS Grade K Module 6 Fluencies

**Lesson 1**

**Fluency Practice (12 minutes)**

⬛ Count to 100 by Ones **K.5** (3 minutes)

⬛ Read the Picture Graph **K.4, K.8C** (5 minutes)

⬛ Peek-a-Boo Shapes **K.6A** (4 minutes)

**Count to 100 by Ones (3 minutes)**

Materials: (S) Rekenrek dot paper (Fluency Template 1)

Note: This activity maintains the rote counting skills acquired in Module 5 and calls attention to the structure

of numbers to 100 with the use of the Rekenrek’s rows of 10 and the verbal cue as they cross decades.

Students count to 100 (or as high as they can in three minutes) by touching the beads on the Rekenrek dot

paper. Have them say “buzz” after the last number of each row.

**Read the Picture Graph (5 minutes)**

Materials: (T) Coins Graph (Fluency Template 2)

Note: This fluency activity maintains students’ understanding of representing and interpreting data in object

and picture graphs and reinforces their recognition of U.S. coins.

Display the *Coins Graph*. Ask questions such as:

⬛ If there was one more quarter, how many quarters would there be?

⬛ Which type of coin has one less than the nickels?

⬛ Which type of coin has more than the dimes?

⬛ Which type of coin has two more coins than the nickels?

**Peek-a-Boo Shapes (4 minutes)**

Materials: (T) Shape cutouts (Fluency Template 3)

Note: This quick review of the work of Module 2 prepares students to work with flat shapes in today’s lesson.

Show students each shape briefly, and then take it out of view. Remind students beforehand that they are

to use the *listen, think, raise your hand, wait for the signal* procedure to name the shape in choral response.

Start with easy shapes to build confidence, and then steadily increase the level of difficulty. After they have

named the shapes, have students tell the number of sides.

**Lesson 2**

**Fluency Practice (12 minutes)**

⬛ Sprint: Fluency **K.2I** (9 minutes)

⬛ Compose Teen Numbers **K.2B** (3 minutes)

**Sprint: Fluency (9 minutes)**

Materials: (S) Fluency Sprint A, B, C, or D

Note: This activity continues students’ progress toward mastery of addition and subtraction within 5.

Decide on a fluency skill in which students would benefit from extra practice: addition, subtraction, or mixed

addition with subtraction within 5. Select the Sprint that is most appropriate for the class: Fluency Sprint A, B,

C, or D in the materials that follow. In order to correct the work as a class, all students take the same Sprint.

T: It’s time for a Sprint! (Briefly recall previous Sprint preparation activities, and have students locate

their Sprints.) Take out your pencil and one crayon, any color. (Demonstrate the first problem as

needed.)

Continue to follow the familiar Sprint procedure. Have students work on the same Sprint a second time.

Continue to emphasize that the goal is simply to do better than the first time and celebrate improvement.

**Compose Teen Numbers (3 minutes)**

Materials: (T) Large Hide Zero cards (Fluency Template) (optional)

Note: This maintenance activity ensures that students stay sharp on the work of the previous module.

T: (Show cards, or say the numbers 10 and 6.) Raise your hand when you can say the number the Say

Ten way. (Wait for all hands to go up, and then signal.) Ready?

S: Ten 6.

T: Now, say it the regular way, please.

S: 16.

T: (If using Hide Zero cards, slide them together to form the number 16.)

Continue with the following sequence: 17, 18, 19, 13, 14, 15, 11, 12, 10, 20.

Variation: Students can write the number bond or write two addition sentences on their personal white

boards.

**Lesson 3**

**Fluency Practice (12 minutes)**

⬛ Color by Answer Addition **K.2I** (6 minutes)

⬛ Color by Answer Subtraction **K.2I** (6 minutes)

**Color by Answer Addition (6 minutes)**

Materials: (S) Color by answer addition (Fluency Template 1), crayons

Note: This activity gives students an opportunity to practice the fluency of addition within 5 and calls

students’ attention to the patterns within the chart.

After giving clear instructions and demonstrating a few problems as needed, allow students time to work

independently. Early finishers can analyze the patterns they see within the chart.

**Color by Answer Subtraction (6 minutes)**

Materials: (S) Color by answer subtraction (Fluency Template 2), crayons

Note: This activity gives students an opportunity to practice the fluency of subtraction within 5 and calls

students’ attention to the patterns within the chart.

Conduct as above.

**Lesson 4**

**Fluency Practice (12 minutes)**

⬛ Read the Picture Graph **K.4, K.8C** (4 minutes)

⬛ Make a Shape to Find Hidden Numbers in 4 **K.3A, K.6F** (4 minutes)

⬛ Make a Shape to Find Hidden Numbers in 5 **K.3A, K.6F** (4 minutes)

**Read the Picture Graph (4 minutes)**

Materials: (T) Coins Graph (Fluency Template 1)

Note: This fluency activity maintains students’ understanding of representing and interpreting data in object

and picture graphs and reinforces their recognition of different U.S. coins.

Display the *Coins* graph. Ask questions such as:

⬛ How many pennies are there?

⬛ Which type of coin has one more than the pennies?

⬛ Are there more pennies or quarters?

⬛ Which type of coin has the fewest coins?

⬛ If there were one fewer dime, how many dimes would there be?

⬛ If there were one fewer quarter, which two coins would have the same number?

**Make a Shape to Find Hidden Numbers in 4 (4 minutes)**

Materials: (S) 4-dot puzzle cards (Fluency Template 2), plus extra 1-dot and 2-dot pieces

Note: This activity combines students’ knowledge of embedded numbers and part–whole thinking and

previews composition of shapes.

A group of dices with black dots

Description automatically generatedT: (Distribute the 4-dot array card.) Raise your hand when you know how many

dots. Ready?

S: 4.

T: Raise your hand when you know the name of this shape. Ready?

S: Square.

T: Very good. We’re going to use puzzle pieces to make a square and, at the

same time, show different ways to make 4. Here is one way you could do it.

T: How many dots are on this puzzle piece? (Hold up one of the 2-dot rectangle pieces.)

S: 2.

T: And on this one? (Hold up the other 2-dot rectangle.)

A black and white dominoes

Description automatically generatedS: 2.

T: On the whole puzzle? (Replace the piece, and point to indicate the entire puzzle.)

S: 4.

T: So then, what numbers are hiding in 4?

S: 2 and 2.

T: What shapes did I use to make the square?

S: 2 rectangles.

T: Do you see other puzzle pieces I could use to make a square that has 4 dots?

S: Yes!

T: Give it a try! (Distribute additional pieces, and allow students to work for some time. Then, allow

them to confer with a partner. Circulate and ask students to identify the hidden numbers in 4 and the

name and quantity of the shapes they used to compose the square.)

More possibilities:

A close-up of a number

Description automatically generated

Variation: Have students work with a friend to make a rectangle that is not a square.

A black and white dominoes

Description automatically generated

**Make a Shape to Find Hidden Numbers in 5 (4 minutes)**

Materials: (S) 5-dot puzzle cards (Fluency Template 3), plus extra 1-dot and 2-dot pieces

Repeat the process laid out in the previous activity, but this time use the 5-dot puzzle cards.

Invite students to combine puzzle pieces with up to four friends to have fun making

numbers to 20.

**Lesson 5**

**Fluency Practice (13 minutes)**

⬛ Sprint: Fluency **K.2I** (9 minutes)

⬛ Read the Picture Graph **K.4, K.8C** (4 minutes)

**Sprint: Fluency (9 minutes)**

Materials: (S) Fluency Sprint A, B, C, or D (Lesson 2 Fluency Sprints)

Note: This activity continues students’ progress toward mastery of addition and subtraction within 5.

Decide on a fluency skill in which students would benefit from extra practice: addition, subtraction,

or mixed addition with subtraction within 5. Select the Sprint that is most appropriate for the class from

the Fluency Sprints in Lesson 2.

Follow the procedure outlined in Lesson 2.

**Read the Picture Graph (4 minutes)**

Materials: (T) Coins Graph (Fluency Template)

Note: This fluency activity maintains students’ understanding of representing and interpreting data in object

and picture graphs and reinforces their recognition of different U.S. coins.

Display the *Coins Graph*. Ask questions such as:

⬛ How many dimes are there?

⬛ Which type of coin has the most coins?

⬛ Which type of coin has fewer coins than the pennies?

⬛ Which type of coin has more than the quarters?

**Lesson 6**

**Fluency Practice (16 minutes)**

⬛ Sprint: Make 10 **K.2I** (12 minutes)

⬛ Say the Number **K.2F** (4 minutes)

**Sprint: Make 10 (12 minutes)**

Materials: (S) 2 copies of the Make 10 Sprint

Note: This Sprint maintains students’ knowledge of making 10 from Module 4.

T: It’s time for a Sprint!

Briefly recall previous Sprint preparation activities, and have students locate their Sprint.

T: Take out your pencil and one crayon of any color. For this Sprint, you are going to write the missing

number needed to make 10. (Demonstrate one example if needed.)

Continue to follow the Sprint procedure as outlined in Module 4 Lesson 3. Have students work on the Sprint

for a second time. Continue to emphasize that the goal is simply to do better than the first time and

celebrate improvement.

**Say the Number (4 minutes)**

T: I’ll say a number. You say the number that is one more. 4.

S: 5.

Continue with numbers through 20.

T: I’ll say a number. You say the number that is one less. 4.

S: 3.

Continue with numbers through 20.

T: I’ll say a number. You say the number that is two more. 4.

S: 6.

Continue with numbers through 20.

T: I’ll say a number. You say the number that is two less. 4.

S: 2.

Continue with numbers through 20.

Note: This activity maintains students’ ability to say, with automaticity, the number is one/two more or one/

two less.

**Lesson 7**

**Fluency Practice (12 minutes)**

⬛ Getting Ready for First Grade! (12 minutes)

**Getting Ready for First Grade! (12 minutes)**

Materials: (S) Folders, resealable plastic bags, personal white board, copies of Sprints, personal Rekenreks

(made in Module 5), fluency kit (Fluency Template), and other consumable fluency materials

Generate a conversation about the necessity of practicing math over the summer to maintain skills students

have learned in kindergarten. Emphasize the importance of getting ready for first grade, and tell students that

they will get some things today to take home and use over the summer. Tell students that they will receive

a letter telling parents and families how they can help.

Select materials in advance based on individual students’ needs. Take into consideration the amount

of support students can be expected to receive at home, and choose activities that can be done somewhat

independently. Distribute copies of Sprints and Fluency Activity Sheets. Demonstrate how to use them

in a personal white board so that they can be used multiple times over the summer.

Consider enlisting the help of parents or older students to assemble students’ materials into packets. Hold

students’ packets until Lesson 8 so that they can share them with guests at the culminating activity!

**Lesson 8**

**Fluency Practice (5 minutes)**

⬛ My Favorite Fluency (5 minutes)

**My Favorite Fluency (5 minutes)**

Materials: (S) Summer packets (built in Lesson 7 with Fluency Template)

Note: Today’s activity is a fluency celebration.

Using their Getting Ready for First Grade packets, students practice their favorite fluency activity or teach

it to a guest attending the Math Olympics. If available, invite Pre-K students to learn a fluency activity from

their older kindergarten buddies.