(1.1) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities.

(1.1.a) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities. The student is expected to compare and order whole numbers up to 99 (less than, greater than, or equal to) using sets of concrete objects and pictorial models.

Clarifying Activity with Assessment Connections

Students work in pairs. Each student draws a number card from a bag and displays the number using concrete objects such as cubes, beans, or place-value blocks. Students compare the two numbers (less than, greater than, or equal to). Each pair joins with another pair to combine their cards and sequence the cards in order from greatest to least and least to greatest.

For example: one student draws a 38 and the partner draws a 52.

Assessment Connections

Questioning . . .

Open with . . .

- Tell me about your numbers.

Probe further with . . .

- What number is on your card?
- Do you have 38 (52) cubes? Show me how you know this.
- How are your cards ordered? (from least to greatest, etc.) How do you know which one was the least? greatest?
- Can you order the cards another way?
- Record your work in your math journal using words, pictures, or numbers.

Listen for . . .

- Does the student explain counting procedures?
- Does the student's procedure lead to an accurate count?

Look for . . .

- How comfortable and accurate is the student when counting?
- If the student makes a mistake, what happens? Does the student self correct, start over, or keep counting?
- What tracking strategy does the student use (touch and move, line-up, group, etc.)?

- Does the student use number sense to compare and order amounts? (For example, I have 5 more so my # is greater.)
- Does the student count by ones or group the manipulatives to count more efficiently (count by 2's, 5's 10's)?
- How does the student compare the sets of concrete objects? Does the student use 1-1 correspondence?
- Does the student use visual clues? ("this pile looks like more.")
- Can the student record the work correctly in their journal?

Future TEKS Connection

- Grade 2 TEKS Connection 2.1

(1.1.b) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities. The student is expected to create sets of tens and ones using concrete objects to describe, compare, and order whole numbers.

Clarifying Activity with Assessment Connections

Students work in groups of threes. Each student draws a number card. Students work with their group using linking cubes in stacks of tens and ones to model the numbers drawn. Students compare and order their numbers.

For example: one student draws a 27, one draws a 72, and one draws a 36.

Assessment Connections

Questioning . . .

Open with . . .

- Who has the greatest (least) number? How do you know?

Probe further with . . .

- Can you find out which one is greater without counting? How?
- What are your numbers?
- Tell me about your models.
- How many cubes do you have? How do you know?
- Can you represent your model by drawing it in your math journal?
- What would happen if you take your model for your number apart? How many cubes will you have? How do you know?
- What will happen if I give each of you three more cubes? Who will have the greatest (least) number? How do you know?

Listen for . . .

- Can the student clearly explain the model and the strategy used to compare and order the numbers?
- How did the student compare and order the numbers?
- Can the student accurately read the number?
- Does the student self-monitor and self-correct?
- Does the student take advantage of the tens groupings when determining how many cubes or do they count by ones?

Look for . . .

- Does the student group into tens and ones?
- Does the student accurately model the number given using the linking cubes?
- Does the pictorial representation match the number and show an understanding of place value?
- How does the student compare and order the numbers of cubes if given three more? (Does the student count on, recount all, use mental computation, or another method?)
- Does the student demonstrate conservation of number? (That is, does the student recognize that taking the cubes apart did not change the amount.)

Future TEKS Connection

- Grade 2 TEKS Connection 2.1

Additional Clarifying Activity

Each student in a group of four is given a cup of more than 10 objects. Students group objects into sets of tens and ones. Students select a corresponding number card to match their set and say the number. Partners compare their numbers, then the entire group orders their number cards from least to greatest and/or greatest to least.

(1.1.c) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities. The student is expected identify individual coins by name and value and describe relationships among them.

Clarifying Activity with Assessment Connections

Small groups of students are given a bag of coins that include at least 42 pennies, 9 nickels, 4 dimes, and 2 quarters. The students find one coin of each type and tape one of the coins to the top of 4 separate papers. They show all the ways to make the same value of the taped coin by placing the collections below the coin. Students can record their collections by representing them using words, pictures or numbers in their math journals.

Note: This may be more manageable in a group or center.

Assessment Connections

Questioning . . .

Open with . . .

- Tell me about your collections.

Probe further with . . .

- How many kinds of coins did you find in your bag?
- What kinds of coins did you find?
- What is the value of a penny? Can you write it beside the penny? Can you write the value for each of the coins taped to the top of the pages?
- Do you have all the different ways to make the value of each coin? How do you know?
- Which coin is worth the most? How do you know?
- Which coin is worth the least? How do you know?
- Which is worth more, one quarter or two dimes? How do you know?

Listen for . . .

- Does the student name the coins correctly?
- Does the student know the value of each coin?
- Can the student explain the relationship between the value of coins? (For example, a dime is worth two nickels, a dime is worth more than a nickel, and a quarter is worth more than two dimes.)

Look for . . .

- Does the student show all of the different ways to make the value of each coin?
- Can the student record the value or each coin accurately?
- Does the student use a ¢ symbol to record the value of the coin?
- Does the student demonstrate a strategy for organizing and finding all of the collections?
- Can the student record their observations using words, pictures, or numbers?
- Does the record match what they did?

Future TEKS Connection

- Grade 2 TEKS Connection 2.1

Additional Clarifying Activity

Each pair of students is given a set of coins and a hundreds chart. One partner selects a coin, names its value, and hands it to the other partner. The second student places each

coin in the appropriate space on the hundreds chart to indicate the value. Students then describe the value of each coin in terms of placement on the hundreds chart. Students can listen to the poem "Smart" from *Where the Sidewalk Ends*, by Shel Silverstein and discuss what they have learned about the values of the coins.

(1.1.d) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities. The student is expected to read and write numbers to 99 to describe sets of concrete objects.

Clarifying Activity with Assessment Connections

Each student forms a collection of objects that go together such as different kinds of buttons, baseball cards, pencils, library books, etc. Students label each collection with the number card that tells how many objects are in it.

Assessment Connections

Questioning . . .

Open with . . .

- Tell me about what you have done.

Probe further with . . .

- How did you sort?
- How many objects are in your collections? Can you show me how you figured this out?
- What numbers have you written on your number cards?
- Do your number cards match your collections? How do you know? Which collection has the greatest (least) number of objects? How do you know?
- Can you record your work in your math journal using words, pictures, and numbers?

Listen for . . .

- Can the student read the numbers?
- Can the student explain his or her thinking?
- How comfortable and accurate was the student while counting?
- If the student makes a mistake, what happens? Does the student self-correct, start over, or keep counting?

Look for . . .

- Can the student write the numeral that describes how many are in the collection?
- What strategy does the student use for checking if the solution is correct?
- What tracking strategy does the student use (touch and move, line-up, group, etc.)?

- Does the student use number sense to compare amounts? (For example, I have 5 more so my # is greater.)
- Does the student use grouping of manipulatives to count more efficiently (count by 2's, 5's 10's)?

Future TEKS Connection

- Grade 2 TEKS Connection 2.1