

Major Learning Targets for This Grade

Numbers: Tens and Ones

Students will use what they know about tens and ones to help them solve problems.

"I know what a ten is and can tell how many tens and ones are in a number."

"I can compare two-digit numbers with $<$, $=$, $>$ because I know tens and ones."

"I can add and subtract multiples of 10 (10-90) from numbers under 100, write the matching number sentence, and explain my strategy."

Example Task: *Mrs. Smith has 4 oatmeal cookies, 5 chocolate cookies, and 6 peanut cookies. How many cookies does Mrs. Smith have?*

Student A:

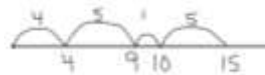
I put 4 counters on the ten frame for the oatmeal cookies. Then, I put 5 different color counters on the ten frame for the chocolate cookies. Then, I put another 6 color counters for the peanut cookies. Only one of the peanut cookies fit, so I had 5 leftover. Ten and five more make 15 cookies. Mrs. Smith has 15 cookies.



$$4 + 5 + 6 = \underline{\quad}$$

Student B:

I used a number line. First I jumped to 4, and then I jumped 5 more. That's 9. I broke up 6 into 1 and 5 so I could jump 1 to make 10. Then, I jumped 5 more and got 15. Mrs. Smith has 15 cookies.



$$4 + 5 + 6 = \underline{\quad}$$

Student C:

I wrote: $4 + 5 + 6 = \square$. I know that 4 and 6 equals 10, so the oatmeal and peanut equals 10 cookies. Then I added the 5 chocolate cookies. 10 and 5 is 15. So, Mrs. Smith has 15 cookies.

Adding and Subtracting

Students will add and subtract numbers using different strategy.

"I can add and subtract numbers within 20."

"I can solve story problems where I have to add 3 numbers."

"I can tell if addition and subtraction number sentences are true because I understand what an equal sign means."

"I can figure out what a missing number is in an adding or subtracting problem."

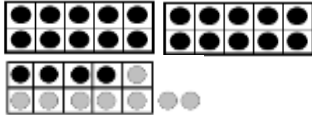
Example Task: *24 red apples and 8 green apples are on the table. How many apples are on the table?*

Student A:

I used ten frames. I put 24 chips on 3 ten frames. Then, I counted out 8 more chips. 6 of them filled up the third ten frame. That meant I had 2 left over. 3 tens and 2 left over is 32. So, there are 32 apples on the table.

$$24 + 6 = 30$$

$$30 + 2 = 32$$

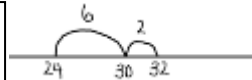


Student B:

I used an open number line. I started at 24. I knew that I needed 6 more jumps to get to 30. So, I broke apart 8 into 6 and 2. I took 6 jumps to land on 30 and then 2 more. I landed on 32. So, there are 32 apples on the table.

$$24 + 6 = 30$$

$$30 + 2 = 32$$



Student C:

I turned 8 into 10 by adding 2 because it's easier to add. So, 24 and ten more is 34. But, since I added 2 extra, I had to take them off again. 34 minus 2 is 32. There are 32 apples on the table.

$$8 + 2 = 10$$

$$24 + 10 = 34$$

$$34 - 2 = 32$$

Time, Measurement, and Shapes

Students will tell time, measure lengths using objects, and break shapes into smaller shapes.

"I can measure and tell the lengths of objects, and can put three things in order from longest to shortest."

"I can tell and write times in hours or half-hours using any kind of clock."

"I can break circles and rectangles into equal parts and use the words whole, halves, fourths, and quarters to talk about them."

Example Task: *How can you and a friend share equally this piece of chocolate so that you both have the same amount?*

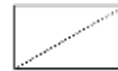
Student A:

I would split the chocolate right down the middle. That gives me 2 halves. I have half a piece of the chocolate and my friend has the other half.



Student B:

I would split it from corner to corner (diagonally). My friend gets half of the chocolate and I get half. See, if we cut on the line, the parts are the same size.



Expected Behaviors in Math Class

Students will...

- Make predictions and estimations
- Decide if their answer is reasonable
- Use examples and counterexamples to justify a conclusion
- Explain their thinking and their process to solving a problem
- Apply mathematics to solve problems in everyday life
- Consider available tools to help them solve problems (including hands-on tools and technology)
- Use technology to explore and deepen their understanding
- Communicate ideas clearly verbally and in writing, using math vocabulary when appropriate
- Look for patterns and shortcuts

How Can I Support My Student in This Course?

1. Ask Questions

- When your student is stuck, ask him/her questions like:
 - “How do you know?”
 - “Have you seen a similar problem like this before?”
 - “Does your answer make sense?”
 - “What is the problem asking you?”
 - “What information do you need to solve this question?”

2. Encourage Your Student to Ask Questions

- You don’t need to be able to answer every question that students may come up with; encourage your student to write down his/her question to bring to a teacher or peer the next day

3. Ask Your Student to Draw the Math Problem

- All mathematics can be represented visually; visual representations help students understand the concepts
- Encourage color coding

4. Encourage Multiple Representations of the Problem

- Ask your student to solve the problem in a different way, and to make connections between the different representations

5. Value Mistakes

- Students are learning when they are making mistakes; create an environment where your student feels comfortable making a mistake and learning from it

6. Don’t Simply Tell Them the Right Answer

- Once students are aware that their answer is right, they are more likely to stop thinking about the math
- Instead of telling them the right answer, ask them a question (see #1) or have them draw a picture

7. Praise Effort

- When your student gets a right answer, acknowledge how hard they must have worked and practiced
- When your student is stuck, acknowledge that sometimes math is challenging and that if they continue to practice and work hard, they will improve

For more information, visit scusd.edu/math or contact Mikila-Fetzer@scusd.edu, Math Coordinator

SCUSD’s Vision for Instruction and Assessment: *As a community of learners, we strive to create positive and engaging environments where a rigorous, student-centered curriculum is central. Teachers use inquiry-based instruction and formative assessment practices to support ALL learners in maturing socially and in becoming disciplinary thinkers.*