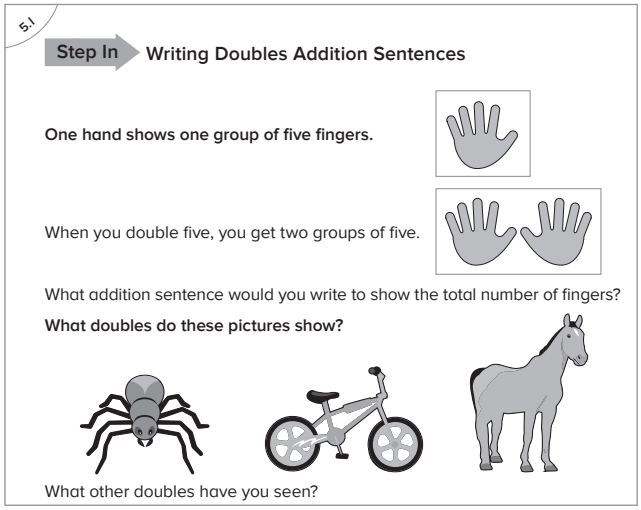
ORIGO STEPPING STONES TEXAS

Core Focus

- Using addition strategies involving doubles
- Working with early angle concepts and 2D shapes

Addition

- Students practiced the count-on strategy in Module 2. The count-on strategy is used when one addend is small.
- When the two addends are close to the same size, the **doubles strategy** can be used. "Doubles" are easily connected to familiar situations, e.g. two hands show that "double 5 is 10," and an egg carton shows "double 6 is 12."


5.1

Step In Writing Doubles Addition Sentences

One hand shows one group of five fingers.

When you double five, you get two groups of five.

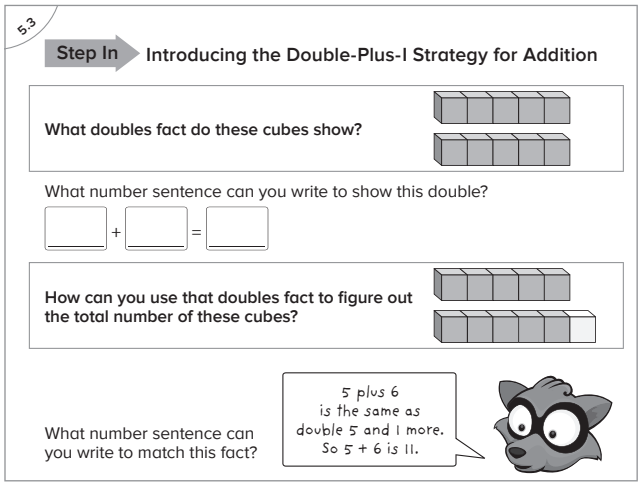
What addition sentence would you write to show the total number of fingers?

What doubles do these pictures show?

What other doubles have you seen?

In this lesson, students make connections between familiar doubles and number sentences to represent the doubles fact.

- The **doubles** strategies can be extended to other addition facts, for example, **double-plus-1** (e.g. *see* 7 + 8, *think* double 7 plus 1 is 15), and double-plus-2 (e.g. see 6 + 8, *think* double 6 plus 2 is 14).


5.3

Step In Introducing the Double-Plus-1 Strategy for Addition

What doubles fact do these cubes show?

What number sentence can you write to show this double?

_____ + _____ = _____

How can you use that doubles fact to figure out the total number of these cubes?

What number sentence can you write to match this fact?

5 plus 6 is the same as double 5 and 1 more. So 5 + 6 is 11.

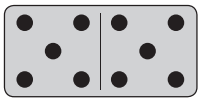
In this lesson, students use what they know about doubles to learn the facts that are one more than the double.

Ideas for Home

- Notice doubles in everyday life: (e.g. double 2 tires on a car, double 3 cans in a six-pack of soda, and double 9 wheels on an eighteen-wheeler truck.
- Tell stories involving doubling, e.g. find a magic basket that doubles anything put in it. Talk with your child about how they mentally double the number of objects that go into the basket.
- When doubling, ask "How did you know?" Encourage mathematical language: "I know that double 2 eggs is 4 eggs."

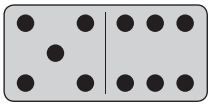
Glossary

- Domino faces can show the **doubles**



Double 5 is 10

and **doubles-plus-one** strategies.



Double 5 plus 1 is 11

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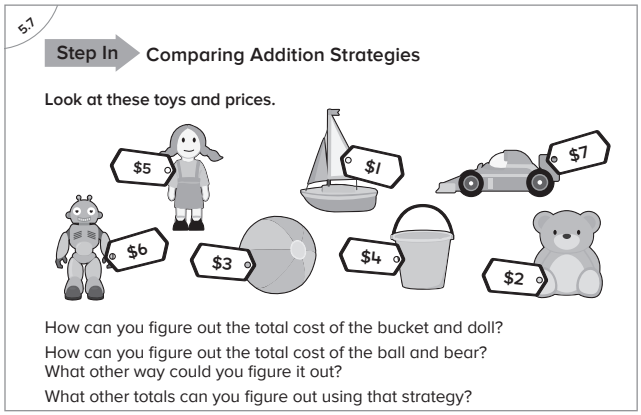
- Mental strategies such as doubling are efficient and flexible approaches to solving addition and subtraction problems. These strategies are extended beyond the facts to larger numbers later on.
- At the end of the module, students apply both the count-on and doubling strategies in real-life situations, such as shopping.


5.7

Step In Comparing Addition Strategies

Look at these toys and prices.

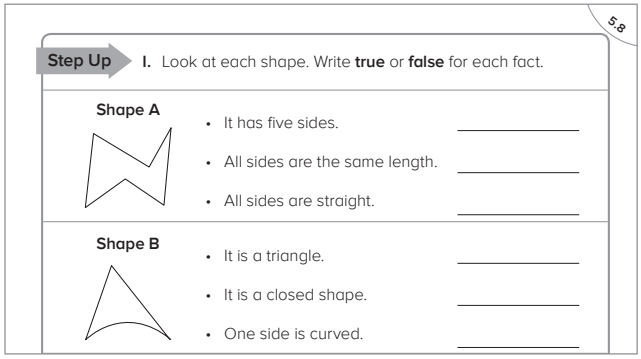
$5 $1 $7 $6 $3 $4 $2

How can you figure out the total cost of the bucket and doll?
How can you figure out the total cost of the ball and bear?
What other way could you figure it out?
What other totals can you figure out using that strategy?

In this lesson, students work with the count-on and doubling strategies.

Measurement and Geometry

- Investigating turns and directions (focusing on left/right) builds toward describing the direction and amount of turns studied in geometry later on.
- Students examine **2D shapes** and explore angles (where two sides meet), the number of corners and sides, whether sides or straight or curved, and whether the shape is closed or open.
- Analyzing and sorting shapes helps students identify basic shapes by their attributes (features), and to join shapes to make other shapes.


5.8

Step Up I. Look at each shape. Write **true** or **false** for each fact.

Shape A
- It has five sides. _____
- All sides are the same length. _____
- All sides are straight. _____

Shape B
- It is a triangle. _____
- It is a closed shape. _____
- One side is curved. _____

In this lesson, students decide whether the statements describing the features of 2D shapes are true or false.

- Sorting is an essential skill for identifying what is the same and different about geometric shapes. This skill develops higher-level thinking skills of analysis and explanation.

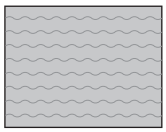
Ideas for Home

- To develop a sense of right and left, use directions such as, “Put your left hand in the jacket first, then your right”, and “Ride your bike on the right side of the path.”
- Ask your child to notice what the rules are for sorting in the house (e.g. in the kitchen cabinets, drawers or the clothes dresser).
- Use puzzle pieces to develop and reinforce the features of 2D shapes. Notice:
  - the number of sides and the “pointiness” of angles
  - that sides are straight or curved
  - whether the shape is closed or open.

Glossary

- **Square rectangles** have 4 square corners and a set of 4 sides that are all the same length.

- **Non-square rectangles** have 4 square corners and 2 pairs of sides that are each the same length.



- **2D shapes** show 2 dimensions of length and width. **3D shapes** show 3 dimensions of length, width and depth.