1 Module 10

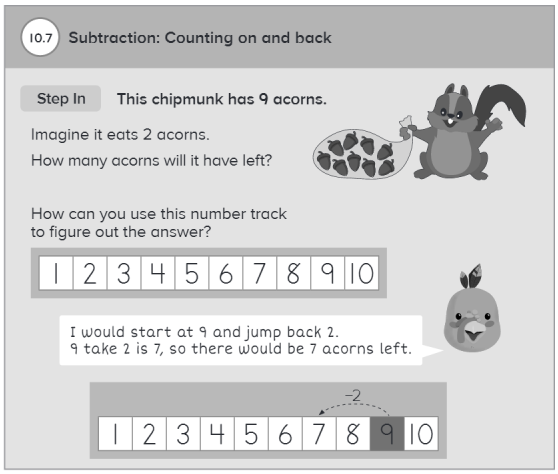
ORIGO STEPPING STONES 2.0

Core Focus

- Subtraction: Counting pon and counting back and decomposing a number to bridge to ten, and writing related addition and subtraction facts
- Geometry: 3D objects

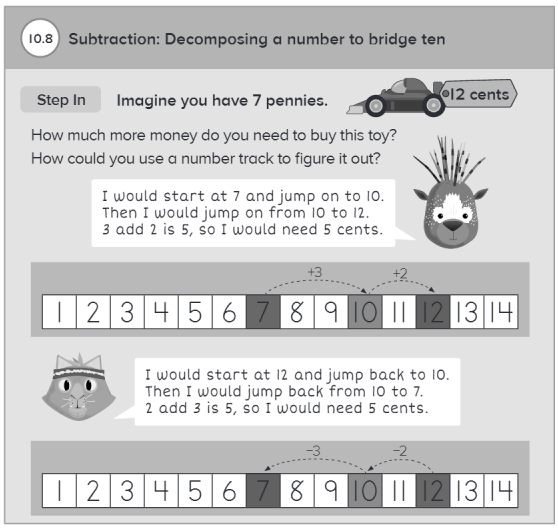
Subtraction

- Students use *count-on* (addition) and *count-back* (subtraction) strategies to solve problems with an unknown part and represent their thinking using equations. A number track makes the strategy visible.



Counting back two from nine on the number track lands on seven, which is the number of acorns the squirrel has left.

- Students then extend count-on and count-back strategies to two-digit numbers.

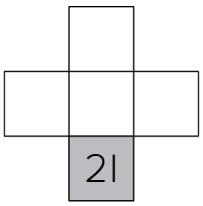


In these lessons, students use a number track to help them jump on or back 1, 2, or 3 from any two-digit number.

Ideas for Home

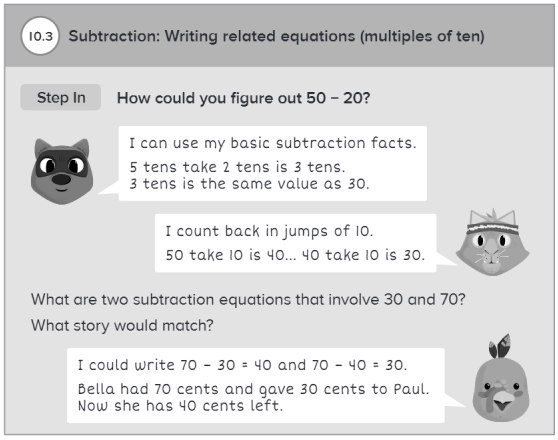
- Count out 20 or fewer beans or pennies. Hide one part of the total in one hand and show your child what is in your other hand. Say, "I have 18 all together, there are 11 in this hand. How many are hidden?" If your child is still having trouble with the facts that make 10, use 10 as the total.
- Practice *tic-tac-ten* (see below). Draw a tic-tac-toe hash and write a two-digit number in one of the squares. Take turns filling in each box, using the place-value patterns of the hundred chart. Explain why the number goes there (e.g. "12 − 1 is 11, 11 + 1 is 12").

Glossary



- This *tic-tac-ten* frame is a piece of a hundred chart, with 1 and 11 vertically, and 10, 11, 12 horizontally.

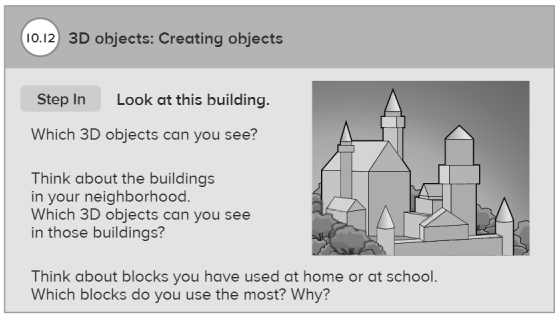
- Discovering these base-10 place-value rules using a hundred chart and concrete objects in Grades 1 and 2 sets the foundation for transitioning to using and mastering the vertical addition and subtraction algorithms in Grades 3 and 4.



In this lesson, students use base-10 blocks or a hundred chart to subtract multiples of ten.

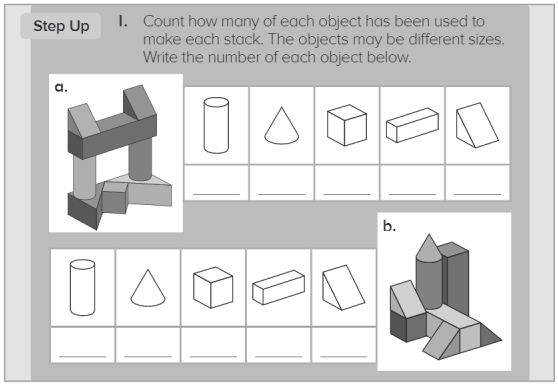
Geometry

- In Grade 1, students continue to identify, sort, analyze, and make 3D objects. These 3D objects may have flat surfaces (sides of a box) or curved surfaces (a ball), or perhaps some of each (the ends and the sides of a can).



In this lesson, students identify 3D objects in real-life situations.

- Children's spatial reasoning develops when they have lots of experiences with analyzing, copying, and building specific shapes with blocks.



In this lesson, students explore composite 3D objects; 2 or more 3D shapes put together.

Ideas for Home

- Help develop spatial visualization skills by talking about shapes in the kitchen: "How are the shapes of a cereal box and a box of macaroni and cheese the same, and how are they different?" Compare a soup can to a drinking glass, or a juice box to a milk carton.
- Play *I spy*. When we look at the flat faces of 3D objects, what 2D shapes can we see? Some 3D objects have triangular faces, while others have squares or non-square rectangles for faces, or some of each: "I spy with my little eye a triangle face."