

# 1 Math Unit 11: Use Models and Strategies to Subtract Tens

Content Area: **Mathematics**  
Course(s):  
Time Period: **April**  
Length: **2 Weeks**  
Status: **Published**

## Unit Overview

A rigorous curriculum emphasizes conceptual understanding, procedural skill and fluency, and applications.

### CONCEPTUAL UNDERSTANDING

- **Strategies Based on Place-Value Concepts** In Topic 11, subtraction strategies that use place-value blocks allow students to physically count a difference. Strategies that use a hundred chart generalize the representation of the blocks to numbers arranged in a pattern. Strategies that use an open number line provide another way of representing what the digits in a number mean.

Josh wants to find  $50 - 30$ .

Start at 50.

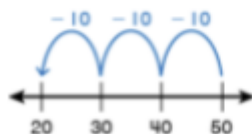
Move up 3 rows to subtract 30.

You stop at 20.

So,  $50 - 30 = 20$ .

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Another way is to use a number line.



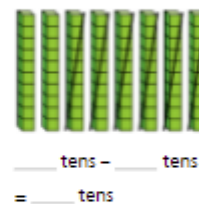
$50 - 30 = 20$ .

### PROCEDURAL SKILL AND FLUENCY

There are no fluency expectations in Topic 11.

- **Use Subtraction Strategies** Throughout Topic 11, students use concrete models, drawings, and strategies to find differences between multiples of 10 within 100.

Subtract the tens shown by the model.



### APPLICATIONS

- **Real-World Applications** Throughout Topic 11, students solve real-world problems that involve subtraction situations. The situations include "take from," "take apart," and "compare."

Nate has 70 green apples.

He has 30 red apples.

How many more green apples does Nate have than red ones?

Model the problem situation using blocks or a number line.  
Then write an equation to show the problem.

## Standards

MA.1.NBT.B.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
MA.1.NBT.B.2c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
MA.1.NBT.C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
MA.1.NBT.C.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

## Materials

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### Core Materials:

- [EnVision Math](#)
- 11.1-Subtract Tens Using Models
- 11.2-Subtract Tens Using a Hundred Chart
- 11.3-Subtract Tens Using an Open Number Line
- 11.4-Use Addition to Subtract Tens
- 11.5-Mental Math: Ten Less Than a Number
- 11.6-Use Strategies to Practice Subtraction
- 11.7-Model with Math

### Supplemental Materials:

- [ST Math](#)
- [Happy Numbers](#)
- [3 Act Lessons](#)
- [Building Fact Fluency Kit](#)
- [Brainiaccamp Manipulatives](#)
- [Nearpod Lessons](#)
- [Brainpop Resources](#)
- [Math Diagnosis and Intervention System](#)
- [Online Resources](#)

## Technology

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### Algorithms & Programming

8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

8.1.2.AP.4: Break down a task into a sequence of steps.

### Data & Analysis

8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats.

- 8.1.2.DA.3: Identify and describe patterns in data visualizations.
- 8.1.2.DA.4: Make predictions based on data using charts or graphs.

## Assessment

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### Formative Assessment

- Teacher Observation
- Daily Quick Checks
- Quizzes
- Exit Tickets

### **Summative Assessment**

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

## **Accommodations & Modifications**

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### **Special Education**

- Follow IEP Plan which may contain some of the following examples...
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

### **504**

- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities

- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

## **ELL**

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

## **At-risk of Failure**

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
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## **Gifted & Talented**

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

## **Interdisciplinary Connections**

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Topic 1 Math and Science Project - Using different presentations tools, students will collect different types of paper. Talk about the uses of paper. Tell how strong each type of paper is. Tell how the paper feels. Tell if the paper can soak up water.

**ELA:**

RI.2.10. Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed.

**Science:**

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

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**21st Century Life Literacies & Key Skills****Critical Thinking and Problem Solving**

- 9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
- 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

**Technology Literacy**

- 9.4.2.TL.3: Enter information into a spreadsheet and sort the information.
- 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.
- 9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts

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**Career Ready Practices**

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.