



## Teacher's Resource Masters

### GRADE 4 VOLUME 1

#### Topics 1-7

Home-School Connection Letters

Pick a Project

**enVision®** STEM Activities

Daily Review

Reteach to Build Understanding

Build Mathematical Literacy

Enrichment

Fluency Practice/Assessment

**enVision®** Mathematics

# Grade 4

## Volume 1: Topics 1–7

### Topic 1

#### **Generalize Place Value Understanding**

---

Topic 1 Home-School Connection  
(English and Spanish)

Topic 1 Pick a Project A–C

**enVision®** STEM Activity..... 1-1, 1-2

Daily Review (D) ..... 1-1 through 1-5

Reteach to Build

Understanding (R) ..... 1-1 through 1-5

Build Mathematical

Literacy (M) ..... 1-1 through 1-5

Enrichment (E) ..... 1-1 through 1-5

### Topic 2

#### **Fluently Add and Subtract Multi-Digit Whole Numbers**

---

Topic 2 Fluency Practice/Assessment

Topic 2 Home-School Connection  
(English and Spanish)

Topic 2 Pick a Project A–D

**enVision®** STEM Activity..... 2-2, 2-6

Daily Review (D) ..... 2-1 through 2-8

Reteach to Build

Understanding (R) ..... 2-1 through 2-8

Build Mathematical

Literacy (M) ..... 2-1 through 2-8

Enrichment (E) ..... 2-1 through 2-8

### Topic 3

#### **Use Strategies and Properties to Multiply by 1-Digit Numbers**

---

Topic 3 Home-School Connection  
(English and Spanish)

Topic 3 Pick a Project A–C

**enVision®** STEM Activity..... 3-5, 3-7

Daily Review (D) ..... 3-1 through 3-8

Reteach to Build

Understanding (R) ..... 3-1 through 3-8

Build Mathematical

Literacy (M) ..... 3-1 through 3-8

Enrichment (E) ..... 3-1 through 3-8

### Topic 4

#### **Use Strategies and Properties to Multiply by 2-Digit Numbers**

---

Topic 4 Home-School Connection  
(English and Spanish)

Topic 4 Pick a Project A–D

**enVision®** STEM Activity..... 4-4, 4-6

Daily Review (D) ..... 4-1 through 4-7

Reteach to Build

Understanding (R) ..... 4-1 through 4-7

Build Mathematical

Literacy (M) ..... 4-1 through 4-7

Enrichment (E) ..... 4-1 through 4-7



Topic 5

**Use Strategies and Properties to Divide by 1-Digit Numbers**

---

Topic 5 Home-School Connection  
(English and Spanish)

Topic 5 Pick a Project A–C

**enVision®** STEM Activity..... 5-3, 5-6

Daily Review (D) .....5-1 through 5-10

Reteach to Build Understanding (R) .....5-1 through 5-10

Build Mathematical Literacy (M) .....5-1 through 5-10

Enrichment (E) .....5-1 through 5-10

Topic 6

**Use Operations with Whole Numbers to Solve Problems**

---

Topic 6 Home-School Connection  
(English and Spanish)

Topic 6 Pick a Project A–D

**enVision®** STEM Activity..... 6-5, 6-6

Daily Review (D) .....6-1 through 6-6

Reteach to Build Understanding (R) .....6-1 through 6-6

Build Mathematical Literacy (M) .....6-1 through 6-6

Enrichment (E) .....6-1 through 6-6

Topic 7

**Factors and Multiples**

---

Topic 7 Home-School Connection  
(English and Spanish)

Topic 7 Pick a Project A–C

**enVision®** STEM Activity..... 7-1, 7-3

Daily Review (D) .....7-1 through 7-5

Reteach to Build Understanding (R) .....7-1 through 7-5

Build Mathematical Literacy (M) .....7-1 through 7-5

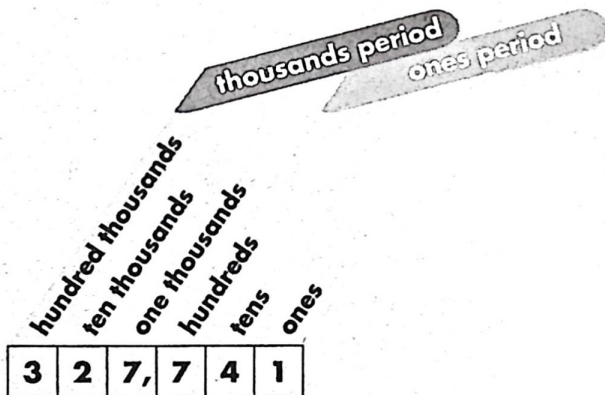
Enrichment (E) .....7-1 through 7-5

Name \_\_\_\_\_

# Generalize Place Value Understanding

Dear Family,

Your child is learning how greater numbers are written, how place values are related, and how to compare numbers. In this topic he or she will learn about the structure of the place-value system with numbers through 1 million. This topic will also allow your child to recognize that the value of a digit depends on its place in a number and that a digit in one place represents ten times what it represents in the place to its right. This is an important skill that will allow your child to communicate mathematical ideas and reasoning.



The first 7 is in the thousands place.  
Its value is 7,000.

The second 7 is in the hundreds place.  
Its value is 700.

## Know Your Numbers

**Materials** index cards, paper and pencil

Make a set of number cards by writing one digit 0 through 9 on each index card. Have your child select cards and arrange them to make the greatest possible 6-digit number. Record the number. For example, if the digits are 1, 3, 5, 6, 7, and 9, the greatest number is 976,531. Then have your child rearrange the cards to make the least possible 6-digit number (135,679). Record the number. Have your child read both recorded numbers aloud. Repeat the activity several times using different 6-digit numbers.

## Observe Your Child

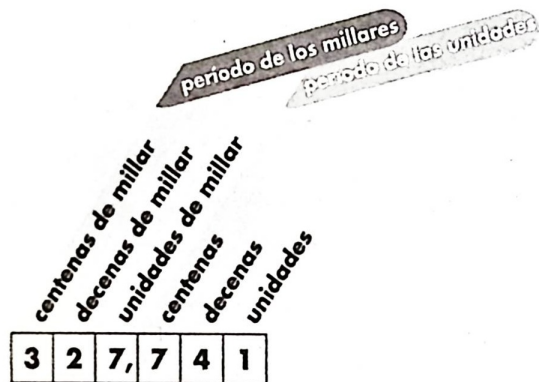
Help your child become proficient with Mathematical Practice 4. Ask your child to write a comparison statement for two numbers using the  $>$  or  $<$  symbols. Ask your child to explain how he or she determined the answer. He or she may use a place-value chart to help explain.



# Hacer generalizaciones sobre el valor de posición

Estimada familia:

Su niño(a) está aprendiendo cómo se escriben los números más grandes, cómo se relacionan los valores de posición y cómo comparar números. En este tema, él o ella va a aprender sobre la estructura del sistema de valor de posición con números hasta 1 millón. También, este tema va a permitir que su niño(a) reconozca que el valor de un dígito depende de su posición en un número y que un dígito en una posición representa diez veces lo que representa en la posición a su derecha. Esta es una destreza importante que va a permitir que su niño(a) comunique ideas y razonamientos matemáticos.



El primer 7 está en la posición de los millares; su valor es 7,000.

El segundo 7 está en la posición de las centenas; su valor es 700.

## Conocer tus números

**Materiales** tarjetas de fichero, papel y lápiz

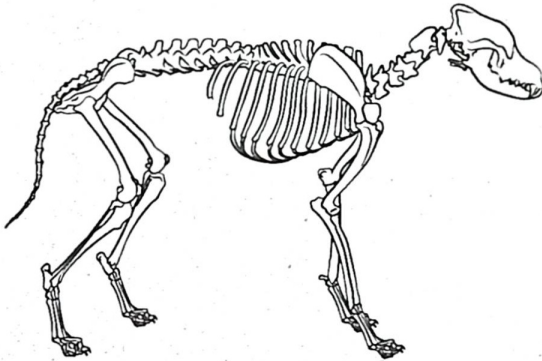
Haga un conjunto de tarjetas de fichero escribiendo un dígito del 0 al 9 en cada tarjeta de fichero. Pída a su niño(a) que escoja tarjetas y las ordene para formar el mayor número de 6 dígitos posible. Anote el número. Por ejemplo, si los dígitos son 1, 3, 5, 6, 7 y 9, el mayor número es 976,531. Luego, pída a su niño(a) que reordene las tarjetas para formar el menor número de 6 dígitos posible (135,679). Anote el número. Pída a su niño(a) que lea en voz alta los dos números anotados. Repita la actividad varias veces usando diferentes números de 6 dígitos.

## Observe a su niño(a)

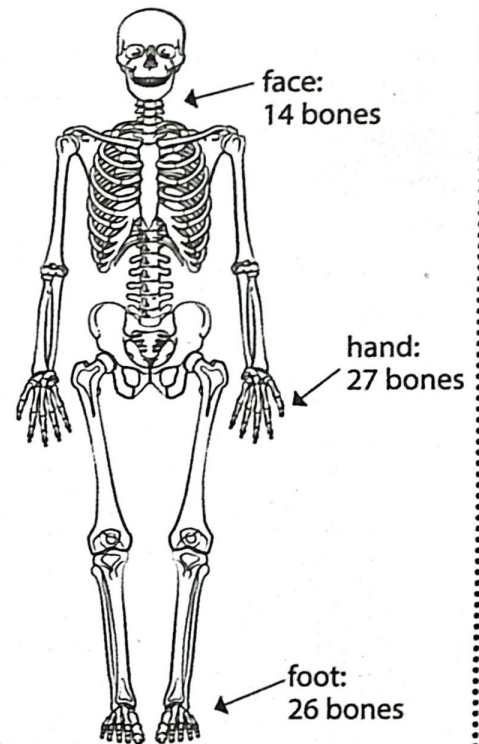
Ayude a su niño(a) a adquirir competencia en la Práctica matemática 4. Pídale que escriba un enunciado de comparación para dos números usando los símbolos  $>$  o  $<$ . Pídale que explique cómo determinó la respuesta. Él o ella podría usar una tabla de valor de posición para ayudarse a explicar.

## How Many Bones?

Babies are born with about 300 bones. As a child ages, some of the bones fuse (join) together. An adult has 206 bones.

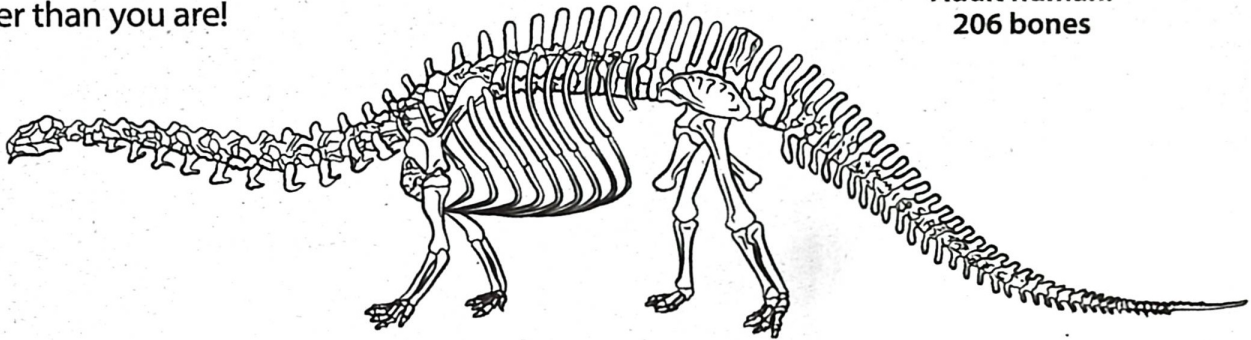


Dogs have about 320 bones.  
Dogs with longer tails have more bones.



**Adult human:**  
**206 bones**

Scientists have discovered the bones of many prehistoric animals. Dinosaur bones have been found in more than 30 states. Some dinosaur bones are bigger than you are!



## Your Project Make a Poster

Read about the number of bones in different animals. Then make a poster with a title and drawings or images of at least 4 animals that you researched.

Include a table or summary that mentions:

- The names of your animals
- How many bones they have in numbers
- How many bones they have with number words
- A list ordering the animals based on the number of bones they have, from the least to the greatest



Name \_\_\_\_\_

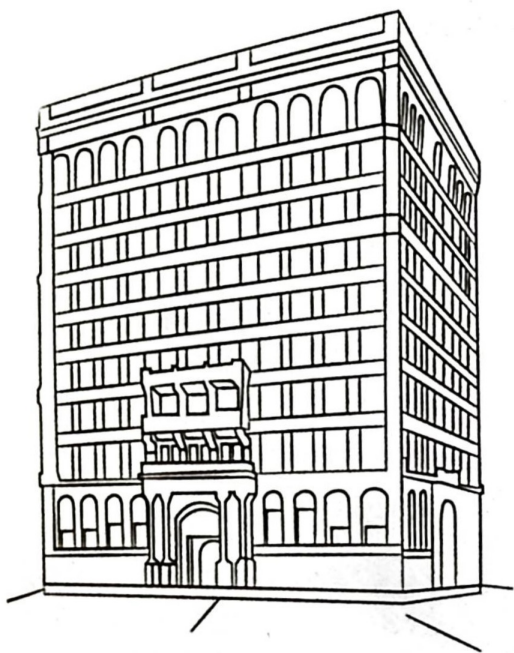
Pick a Project

Project 1B

## Skyscrapers, How Big?

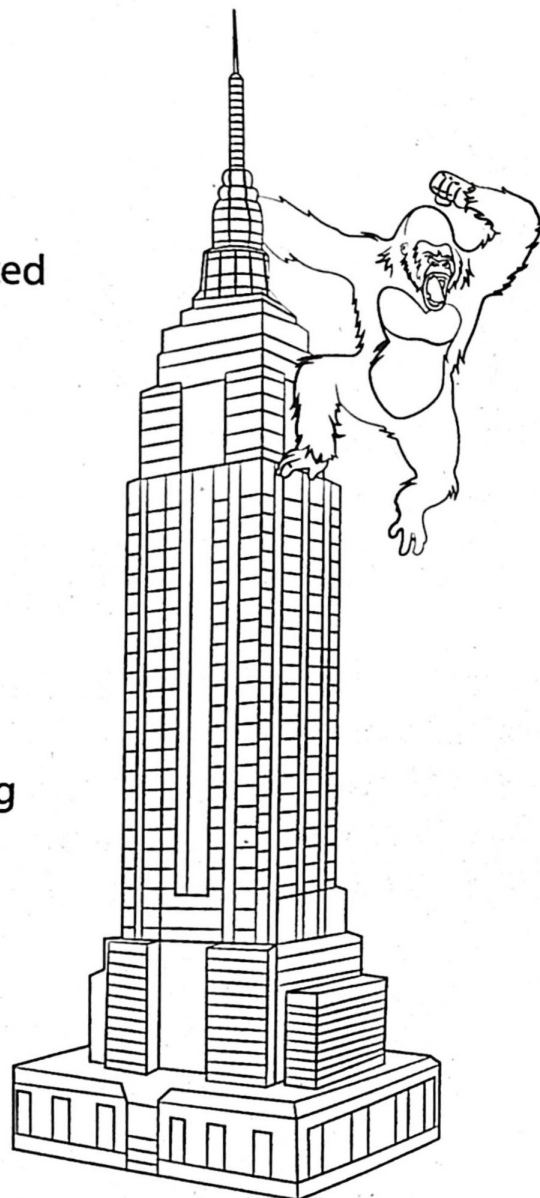
The term *skyscraper* originally applied to buildings with 10 to 20 stories. Now the term is generally used to describe high-rise buildings greater than 40 or 50 stories.

The Home Insurance Building in Chicago, Illinois, is recognized as the world's first skyscraper. The 10-story building was considered very tall when it was completed in 1885.



It was a new type of building that was supported by a metal frame, rather than heavy stone.

The Empire State Building is 102 stories tall. In a thrilling adventure story, an apelike monster, King Kong, runs loose in New York City where he climbs to the top of the Empire State Building.



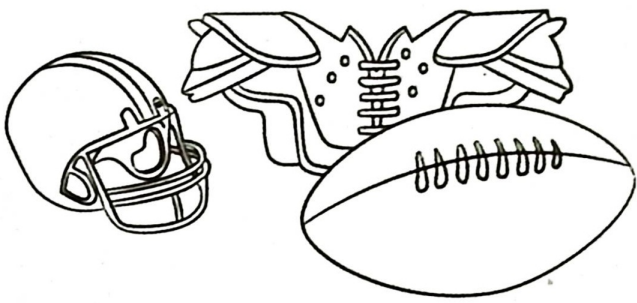
### Your Project Design a Building

Find a fact sheet for a skyscraper that has 100 or more stories. Using the information on the fact sheet, write a report that includes the name of the building, where it is located, and the number of stories it has. Report on the building materials, give the amounts that are used (from the fact sheet), and describe how you think they have been used. Then pretend you are in charge of the materials for the construction of a new building. Write a fact sheet on the materials for the new building. Don't forget to sign your report and give yourself a title.

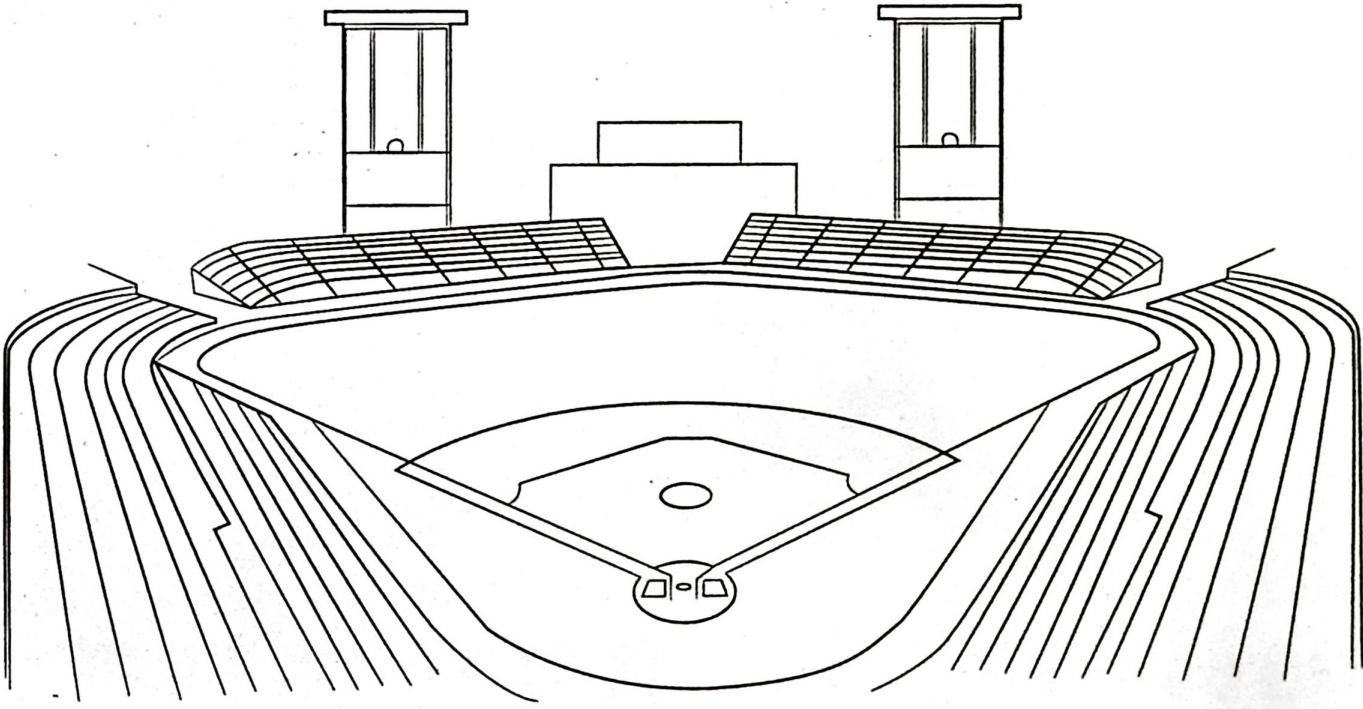


# Stadium Seating Capacity .....

Baseball, football, hockey, and basketball are some fan favorite sports to watch in person at a stadium. The stadiums often times are shared by more than one sports team. Stadiums can be indoor, outdoor, or both indoor and outdoor because it has a retractable roof! Stadiums also host other venues such as concerts, ice shows, and other forms of entertainment.



The Chicago Cubs play at Wrigley field which has a seating capacity of 41,649. The Dallas Cowboy's football team plays at AT&T Stadium, which has a seating capacity of 100,000. New York's hockey team, the New York Rangers play at Madison Square Gardens. The seating capacity for ice hockey there is 18,006. The Boston Celtics play at TD Garden which has a seating capacity of 19,580.



## Your Project Create a Stadium Model

Create a model of one team's stadium. Make a tag that shows the name of the stadium, which team plays (or teams play) there, and how many seats it has (capacity). Research the capacity of three other stadiums for the same sport, and compare the number of seats to the stadium you chose to model.