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Where's My Home? The Case of the Lost Digit – Place Value

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UNDERSTANDING BY DESIGN

Unit Cover Page

Unit Title: Where's My Home? The Case of the Lost Digit – Place Value

Grade Level: 3rd

Subject/Topic Area(s): Math – Place Value

Designed By: Jennifer Yu

Time Frame: 14 Days

School District: Richardson ISD

School: Carolyn Bukhair Elementary

School Address and Phone: 13900 Maham Rd.
Dallas, TX 75240
469-593-4900

Brief Summary of Unit:

This place value unit has been designed as a beginning of the year 3rd grade math unit. The purpose of the unit is to give students an understanding of numbers and how they are given a value. Students will understand that all numbers are made up of digits (0-9) and the position of the digits affect the value of the number. They will also understand that we order numbers to organize in everyday situations. Students will learn to read, write, and expand numbers. They will also learn to order numbers from least to greatest and greatest to least. They will then be asked to transfer their understanding of place value by imagining they have been hired as a librarian and completing their duties through organizing and ordering library books.

Where's My Home? The Case of the Lost Digit – Place Value for 3rd Grade

Stage 1 – Desired Results		
<p style="text-align: center;">TEKS</p> <p>3.1A Use place value to read, write (in symbols and words), and describe the value of whole numbers through 999,999.</p> <p>3.1B Use place value to compare and order whole numbers through 9,999.</p> <p>3.14A Identify the mathematics in everyday situations.</p>	Transfer	
	<p><i>Students will independently use their learning to...</i></p> <ul style="list-style-type: none"> ▪ Use knowledge of place value to compare and order numbers in everyday situations. 	
	Meaning	
	<p>Understandings <i>Students will understand that...</i></p> <ul style="list-style-type: none"> ▪ All numbers are made up of digits (0-9) and the position of the digits change the value of the number. ▪ Numbers are organized according to their value in everyday situations. 	<p>Essential Questions</p> <ol style="list-style-type: none"> 1. How do we know the value of a number? 2. How does the position of the digit change the value of the number? 3. When and how do we use ordering every day?
Acquisition		
<p>Knowledge <i>Students will know...</i></p> <ul style="list-style-type: none"> ▪ Place Value vocabulary words: <i>digit, place value, expanded form, standard form, written form, ones, tens, hundreds, thousands, ten thousands, and hundred thousands.</i> ▪ The value of the manipulative: <i>one, rod, flat, and a cube.</i> ▪ Each place value can only hold up to 9 and must be regrouped at 10. 	<p>Skills <i>Students will be able to...</i></p> <ul style="list-style-type: none"> ▪ Read numbers up to 999,999. ▪ Write numbers in written, standard, and expanded form to 999,999. ▪ Switch the numbers from one form to another. ▪ Compare numbers using words and symbols up to 9,999. ▪ Order numbers from least to greatest and greatest to least up to 9,999. 	
Stage 2 – Evidence		
CODE (M or T)	Evaluative Criteria (for rubric)	
<p style="text-align: center;">T</p> <p style="text-align: center;">T</p> <p style="text-align: center;">M</p>	<ul style="list-style-type: none"> ▪ Accurately order books from least to greatest ▪ Accurate placement of books on shelves. ▪ Explanation shows a clear understanding of ordering numbers. 	<p>Performance Task(s) <i>Students will demonstrate meaning-making and transfer by...</i></p> <p>You have been hired as a librarian at the public library to reshelve non-fiction books. First, to make your job easier and quicker, organize your books on the cart from least to greatest. Then be sure to place the books in the correct spots on the correct shelves. Finally, you will have an assistant to train. Make a handbook explaining how to put the books in order and how to know where to put the books.</p> <p>-----</p> <p>Other Evidence (e.g., formative)</p> <ul style="list-style-type: none"> ▪ Completing “Place Value” and “Number Concepts” worksheets ▪ Place Value Quiz ▪ District Numeration Unit Assessment (place value questions)

Stage 3 – Learning Plan

Stage 3 – Learning Plan																
CODE (A, M, T)	<p style="text-align: center;">Pre-Assessment</p> <p><i>How will you check students' prior knowledge, skill levels, and potential misconceptions?</i></p> <p>Best Buy - Show students list of electronics with prices.</p> <ul style="list-style-type: none"> ▪ Write the item that you would like and the price. ▪ Write the price in words and expanded form. ▪ Which item is the most expensive (greatest)? Which item is the cheapest (least)? ▪ Arrange the electronics from greatest to least. ▪ How did you know which number was the greatest/least? 															
M A A	<p>Learning Activities</p> <p>Day 1 – Hook and Vocabulary</p> <ul style="list-style-type: none"> ▪ Pre-Assessment ▪ Show students a list of average monthly salaries <ul style="list-style-type: none"> ▪ “Using the table, which job do you want when you grow up?” “Why?” (If students respond, “Because it’s a lot of money,” be sure to ask “How do you know?”) ▪ Post and refer to essential question #1. ▪ Vocabulary with manipulatives – <i>ones, tens, and hundreds</i> <ul style="list-style-type: none"> ▪ Have one student from each table group make the following numbers with manipulatives and place value chart: 6, 60, and 600. ▪ Discuss similarities and differences ▪ Vocabulary: <i>digit</i> and <i>number</i> <ul style="list-style-type: none"> ▪ Build different 3 digit numbers using the same digits with place value pockets and manipulatives. For example, use a 3, 5, and 6 to build different numbers (356, 365, 536, 563, 635, and 653). ▪ Read the numbers aloud. 	<p>Progress Monitoring (e.g., formative data)</p> <p>*Observe to make sure students know the difference between 16 and 60. If students struggle, have them start a book illustrating the numbers and everything they know about the number. Also relate –teen to teenagers.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tbody> <tr><td>13</td><td>30</td></tr> <tr><td>14</td><td>40</td></tr> <tr><td>15</td><td>50</td></tr> <tr><td>16</td><td>60</td></tr> <tr><td>17</td><td>70</td></tr> <tr><td>18</td><td>80</td></tr> <tr><td>19</td><td>90</td></tr> </tbody> </table>	13	30	14	40	15	50	16	60	17	70	18	80	19	90
13	30															
14	40															
15	50															
16	60															
17	70															
18	80															
19	90															
M A A A	<p>Day 2 – 3 Digit Numbers</p> <ul style="list-style-type: none"> ▪ Review day 1 <ul style="list-style-type: none"> ▪ Show pictures of electronics with price tags (“Best Buy” table from pre-assessment). Make the number using manipulatives. ▪ Show numbers made with manipulatives. Students make standard form with place value pockets. ▪ Teach students <i>expanded form</i>. <ul style="list-style-type: none"> ▪ 653 – How much is the 6 really worth? What’s the value of the 5? What’s the value of the 3? ▪ Review odd and even. ▪ “Number Concepts” worksheet - standard, written, and expanded form (worksheet created by Chrissy Kuneman) <ul style="list-style-type: none"> ▪ Guide students first ▪ Try a few independently 															

<p>A</p>	<p>Day 3 – 4 Digit Numbers</p> <ul style="list-style-type: none"> ▪ Aerobic Place Value (from Richardson ISD Resources) <ul style="list-style-type: none"> ▪ Teacher says a number – one thousand thirty four ▪ Students with correct card come up to make: $1,000 + 30 + 4$. They squeeze together to make standard form. 	
<p>M</p>	<ul style="list-style-type: none"> ▪ Write checks - (#s to words & words to #s) 	
<p>A</p>	<ul style="list-style-type: none"> ▪ “Number Concepts” worksheet – 4 digit #s 	<p>*Assess to see that students can also change number from expanded form back into standard.</p>
<p>Day 4 – 6 Digit Numbers</p>		
<p>A</p>	<ul style="list-style-type: none"> ▪ Story: “Thousand Street” (Idea from Chrissy Kuneman) <ul style="list-style-type: none"> ▪ Student creates place value chart to hundred thousands 	
<p>M</p>	<ul style="list-style-type: none"> ▪ “Houses for Sale” <ul style="list-style-type: none"> ▪ Look up houses on sale on the internet ▪ Students practice reading and writing the numbers 	
<p>A</p>	<ul style="list-style-type: none"> ▪ “Number Concepts” worksheet - 6 digit #s <ul style="list-style-type: none"> ▪ Model – 6 digit ▪ Guided ▪ Independent 	<p>*Check for 6 digit #s with 0s. Students tend to struggle more with #s like 106,260. *Extra practice: counting and writing from 100-110, 200-210, 300-310, etc.</p>
<p>Day 5 –Value of 6 Digit Numbers</p>		
<p>M</p>	<ul style="list-style-type: none"> ▪ When do we see large numbers? <ul style="list-style-type: none"> ▪ Brainstorm list ▪ Look up student responses and practice reading, writing, and expanding those numbers 	
<p>M</p>	<ul style="list-style-type: none"> ▪ Post and refer to Essential Question #2. 	<p>*Expanded form: Make sure students are careful with the number of zeroes to use.</p>
<p>M</p>	<ul style="list-style-type: none"> ▪ “The Place is Valuable” (Lesson from <i>AIM 4</i>) 	
<p>M</p>	<ul style="list-style-type: none"> ▪ Think, Pair, Share – Essential Question #2 	
<p>Day 6 – Value of 6 Digit Numbers</p>		
<p>M</p>	<ul style="list-style-type: none"> ▪ Refer back to Essential Question #2 	
<p>M</p>	<ul style="list-style-type: none"> ▪ “Let’s Make a Number Part II” (Lesson from <i>AIM 4</i>) 	
<p>A</p>	<ul style="list-style-type: none"> ▪ TAKS HP obj. 1 practice problems <ul style="list-style-type: none"> ▪ Guided #1, 3 ▪ Independent #2, 7 	
<p>Day 7 – Value of Place Value</p>		
<p>A</p>	<ul style="list-style-type: none"> ▪ 3 Way Match – students match the standard, expanded, and written form of numbers 	
<p>M</p>	<ul style="list-style-type: none"> ▪ Refer back to Essential Question #2 	
<p>A</p>	<ul style="list-style-type: none"> ▪ “True Value” (Lesson from <i>AIM 4</i>) 	
<p>A</p>	<ul style="list-style-type: none"> ▪ TAKS HP obj. 1 practice problems <ul style="list-style-type: none"> ▪ Guided #5, 4 ▪ Independent #6 	
<p>M</p>	<ul style="list-style-type: none"> ▪ Exit Ticket – Response to Essential Question #2 	<p>*Verify that students understand that changing the digit in the thousands place is making the number 1,000 greater/less.</p>
<p>Day 8 – Midpoint Review & Practice</p>		
<p>A</p>	<ul style="list-style-type: none"> ▪ “Riddle Log”/Number Riddle <ul style="list-style-type: none"> ▪ Students write a riddle to describe a mystery number. Then partner must guess the number. 	
<p>A</p>	<ul style="list-style-type: none"> ▪ “Display the Digits” (from <i>Envision</i> textbook) 	
<p>A</p>	<ul style="list-style-type: none"> ▪ “Number Concepts” Quiz & Essential Question #1 response 	

	<p>Day 9 – Comparing #s</p> <ul style="list-style-type: none"> M <ul style="list-style-type: none"> ▪ Post and discuss Essential Question #3 <ul style="list-style-type: none"> ▪ Order students in height order or order based on student responses A <ul style="list-style-type: none"> ▪ Teach to compare 2 numbers using <i>Envision</i> Visual Learning Bridge and place value manipulatives <ul style="list-style-type: none"> ▪ Build two 3 digit numbers with manipulatives and compare ▪ Teach vocabulary: <i>compare, greater than, less than, and symbols</i> A <ul style="list-style-type: none"> ▪ Comparison War <ul style="list-style-type: none"> ▪ Students draw 3 cards and make the largest # possible. Students then build the # with place value blocks. Then the student with the highest number gets all of the cards if he/she states the math sentence. “_____ is greater than/less than _____.” If student fails to state math sentence, the partner gets all the cards. A <ul style="list-style-type: none"> ▪ Practice comparing 2 numbers using <i>Envision</i> textbook p.12-13 <ul style="list-style-type: none"> ▪ Move from manipulatives to drawing the number to compare. ▪ Move away from drawing and just using understanding of place value. A <ul style="list-style-type: none"> ▪ “Number Concepts” worksheet <ul style="list-style-type: none"> ▪ Fill in the circle with the greater than, less than, or equal than symbol <p>Day 10 – Ordering #s</p> <ul style="list-style-type: none"> A <ul style="list-style-type: none"> ▪ Ordering on Human Number Line (Whole Group) <ul style="list-style-type: none"> ▪ Hand out several 3 digit numbers. Have student arrange themselves from greatest to least on human # line at the front of the room. ▪ Repeat with 4 digit numbers. A <ul style="list-style-type: none"> ▪ Ordering Monument Heights (Small Groups) <ul style="list-style-type: none"> ▪ Students will sort the famous monument by height from least to greatest. M <ul style="list-style-type: none"> ▪ Brainstorm vocabulary/situations of ordering – refer to Essential Question #3. <ul style="list-style-type: none"> ▪ What are some other words we might use instead of greatest to least? (shortest to tallest, skinniest to fattest, etc.) A <ul style="list-style-type: none"> ▪ “May I Have Your Order, Please?” Game with Place Value Dice (Worksheet from Richardson ISD resources) <ul style="list-style-type: none"> ▪ Students take turns rolling place value dice to fill in 4 separate numbers. ▪ Then students will independently order the numbers from least to greatest or greatest to least. 	<p>*Consider practicing starting from expanded form to get the standard form to complete “Number Concepts” worksheet.</p>
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<p>M,T</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	<p>Day 11 – Ordering #s</p> <ul style="list-style-type: none"> ▪ “Oops! My Dictionary Fell Apart!” <ul style="list-style-type: none"> ▪ Teacher tells story: I was looking up words last night in the dictionary and some pages started falling out. I went to get tape to tape the pages back in, but the fan blew all the pages around the room. So now I have all these pages and don’t know where to tape them. ▪ Give students groups of pages to arrange. ▪ Then have students find where it goes in the dictionary. Ask, “How did you know where the pages should go? “ <p>A</p> <ul style="list-style-type: none"> ▪ TAKS HP Obj. 1 <ul style="list-style-type: none"> ▪ Guided #8-10 ▪ Independent #12-14 <p>A</p> <ul style="list-style-type: none"> ▪ “Checkered Flag” (Game from <i>Scholastic</i>) <ul style="list-style-type: none"> ▪ Students take turns with their partners rolling dice. They collect the corresponding number of race cars. When a student rolls and gets the checkered flag they say, “Greatest to least” or “Least to greatest.” Then, all students arrange their race cars. <p>Day 12 – Numbers Between</p> <p>A</p> <ul style="list-style-type: none"> ▪ “Snake” Game for Numbers Between <ul style="list-style-type: none"> ▪ Students draw their snake on their white board and split it into 3 sections. Decide whether the numbers will be arranged least to greatest or greatest to least. The student rolls place value dice place numbers in their snake. Fill in the least and greatest with the first 2 rolls. Then the student will continue rolling until they roll a number that fits between. The person to complete their snake first wins. ▪ Example: I roll an 800, 20, and a 3. I will write 823 in the greatest section because it is a greater number. Partner rolls and places number. Then I roll a 700, 50, and 7. I have no choice but to write the 757 in the least side. Partner rolls and places number. I must keep rolling until I roll a number that fits between 757 and 823. ▪ Have students use sentence stems. <ul style="list-style-type: none"> ▪ ____ is not between ____ and ____. ▪ ____ is between ____ and ____. <p>A</p> <ul style="list-style-type: none"> ▪ “Numbers Between Lesson” (from Richardson ISD resources) – naked numbers <ul style="list-style-type: none"> ▪ Guided few examples ▪ Complete Independently 	
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<p>M</p> <p>A</p> <p>A</p> <p>M</p>	<p>Day 13 – Numbers Between & Not Between</p> <ul style="list-style-type: none"> ▪ “All the Numbers are Gone!” <ul style="list-style-type: none"> ▪ Students pretend to be painters who were hired to redo the street address numbers that have faded away. Use the given street to find which house address number is the correct one and which one is not correct. ▪ Have students use sentence stems. <ul style="list-style-type: none"> ▪ ____ is not between ____ and ____. ▪ ____ is between ____ and ____. ▪ “Numbers Between Lesson” (continued) – word problems ▪ TAKS HP Obj. 1 # 11, 15 ▪ Write numbers between & not between problems (whole group) using real life situations. <ul style="list-style-type: none"> ▪ Ex. There are about 350 to 500 M&Ms in a large bag. What is a possible number of M&Ms that could be in the bag? <p>Day 14 – Performance Task</p>	
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Best Buy

Item	Price
 <p data-bbox="310 583 579 625">Nintendo DSi</p>	<p data-bbox="1073 443 1276 520">\$149</p>
 <p data-bbox="155 1010 737 1052">40" Samsung LED Television</p>	<p data-bbox="1073 831 1276 909">\$649</p>
 <p data-bbox="269 1398 620 1440">Xbox with Kinect</p>	<p data-bbox="1073 1239 1276 1316">\$399</p>
 <p data-bbox="230 1839 662 1881">HP Laptop Computer</p>	<p data-bbox="1073 1654 1276 1732">\$626</p>

Best Buy Pre-Assessment

1. Which item would you like to buy? How much does it cost?

2. Write the price in words.

3. Write the price in expanded form.

4. Which item has the greatest or most expensive price?

5. Which item has the least expensive or cheapest price?

6. Put the prices in order from greatest to least.

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7. How did you know which number was the greatest?

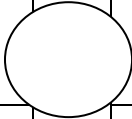
Average Monthly Salaries

Occupation	Monthly Salary
<p data-bbox="321 289 570 331">Airline Pilot</p> 	<p data-bbox="1057 384 1292 457">\$4,206</p>
<p data-bbox="334 562 555 604">Bus Driver</p> 	<p data-bbox="1057 667 1292 741">\$1,594</p>
<p data-bbox="310 856 579 898">Car Mechanic</p> 	<p data-bbox="1057 951 1292 1024">\$2,526</p>
<p data-bbox="207 1129 683 1171">Computer Programmer</p> 	<p data-bbox="1057 1224 1292 1297">\$4,141</p>
<p data-bbox="375 1402 513 1444">Doctor</p> 	<p data-bbox="1057 1476 1292 1549">\$8,189</p>
<p data-bbox="248 1633 643 1686">Hotel Housekeeper</p> 	<p data-bbox="1057 1738 1292 1812">\$1,251</p>

Number Concepts

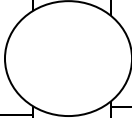
number			drawing		
expanded form					
words					

number			drawing		
expanded form					
words					



number			drawing		
expanded form					
words					

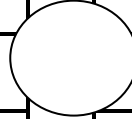
number			drawing		
expanded form					
words					



Conceptos de Números

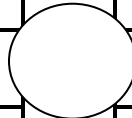
número			dibujo		
forma desarrollada					
palabras					

número			dibujo		
forma desarrollada					
palabras					



número			dibujo		
forma desarrollada					
palabras					

número			dibujo		
forma desarrollada					
palabras					



Number Concepts

number/standard form			odd or even		
expanded form					
words					

number/standard form			odd or even		
expanded form					
words					

number/standard form			odd or even		
expanded form					
words					

number/standard form			odd or even		
expanded form					
words					

Conceptos de Números

número/forma normal			impar or par		
forma desarrollada					
palabras					

número/forma normal			impar or par		
forma desarrollada					
palabras					

número/forma normal			impar or par		
forma desarrollada					
palabras					

número/forma normal			impar or par		
forma desarrollada					
palabras					

My Checkbook

_____	1245

_____	Date _____
Pay to the order of _____	\$ <input type="text"/>
_____	Dollars
Kuneman-Yu Bank	
For _____	_____

_____	1246

_____	Date _____
Pay to the order of _____	\$ <input type="text"/>
_____	Dollars
Kuneman-Yu Bank	
For _____	_____

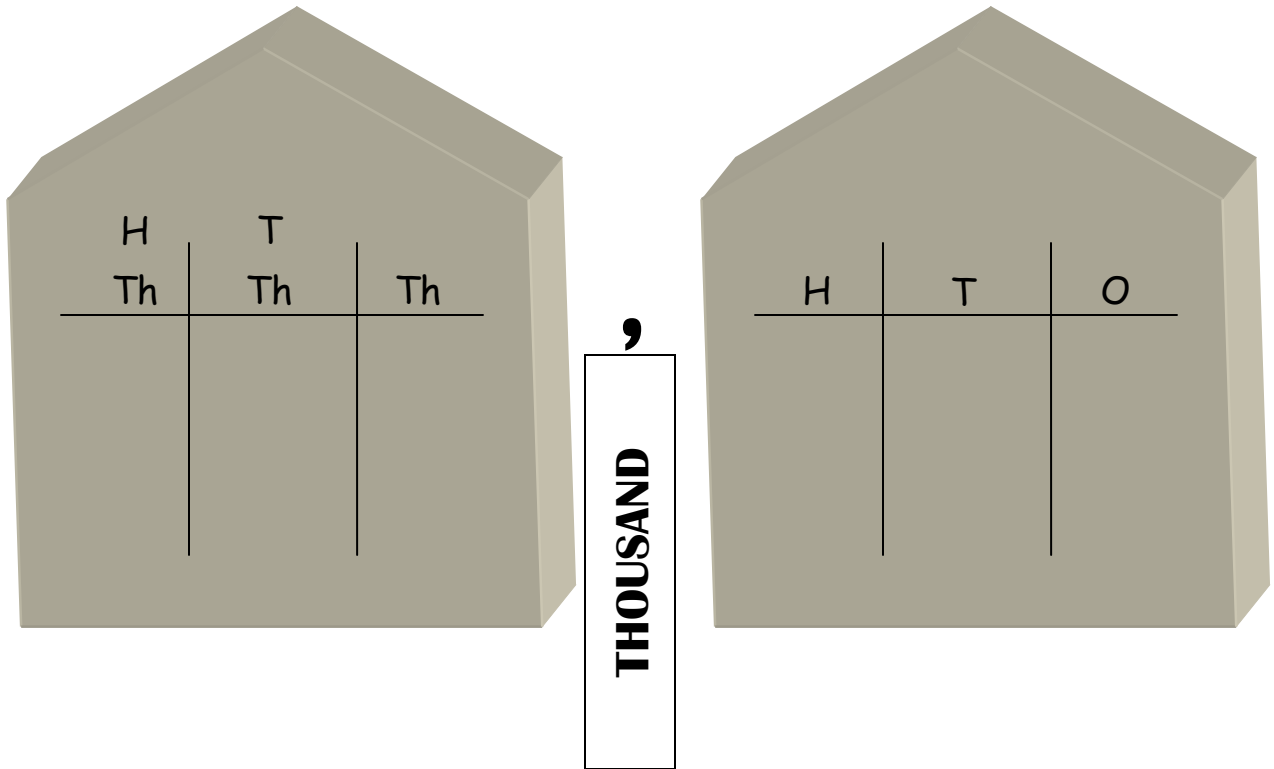
_____	1247

_____	Date _____
Pay to the order of _____	\$ <input type="text"/>
_____	Dollars
Kuneman-Yu Bank	
For _____	_____

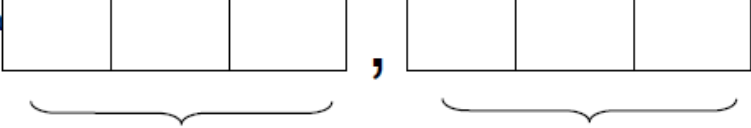
Thousands Street

Story Idea By: Chrissy Kuneman

Numbers live in houses, just like we live in houses or apartments. But the ones house doesn't have a last name like Shakira and Prince. So we don't use a last name for them. (385 is read 385.) The other house, the thousands house, has the last name Thousand and lives on Thousands street. We only say the last name when we see the comma or the street that they live on. (456,000 we read 456 and say the last name thousand when we see the comma. We say, four hundred fifty six THOUSAND.) If your name is Maria Ana Hernandez we wouldn't call you Maria Hernandez Ana Hernandez. We would call you Maria Ana Hernandez. So with numbers you only say the last name once and then you say the name of the next "person." (456,385 we say 456 THOUSAND 385.)



The Place is Valuable

<p>Materials</p> <p>Per pair</p> <ul style="list-style-type: none"> • 1 piece of red construction paper (9" x 12") • 1 piece of blue construction paper (9" x 12") • Scissors • Tape • 1 set digit cards on card stock <p>Vocabulary</p> <ul style="list-style-type: none"> • Digit • Place value period • Ones period • Thousands period <p>Warm-up Life Saver Math multiply by 5</p>	<p>TEKS Student Expectation: The student is expected to use place value to read, write (in symbols and words), and describe the value of whole numbers through 999,999. (3.1A)</p> <hr/> <p>Activity: Today you will play a game to learn more about place value.</p> <ol style="list-style-type: none"> 1. Each pair of students folds the two sheets of construction paper in half lengthwise and cuts them in half on the fold. They then tape the half-sheets together in the color sequence red-blue. Students divide each color into thirds. 2. Teacher informs students that each color of paper represents a place value period. The blue represents the ones and the red represents the thousands. <div style="text-align: center; margin: 10px 0;">  </div> <ol style="list-style-type: none"> 3. Students shuffle their cards and stack them face down below their place value chart. 4. Teacher models the game by setting a goal and playing one round. 5. Teacher gives the students one of the following goals: <ul style="list-style-type: none"> • Largest 6-digit number • Smallest 5-digit number • Largest odd 5-digit number • Smallest even 4-digit number • Number closest to 5,000 6. When the teacher says, "flip," each student removes the top card from the stack and places it in one of the boxes on their place value chart. After a card is placed, it cannot be moved. Play continues until the goal number of digits is reached. 7. Teacher asks: Who feels they have reached the goal? (To receive credit the student must be able to read it correctly and identify the digits in the ones period and the thousands period.) Did anyone get closer to the goal?
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	<ol style="list-style-type: none">8. Students clear their charts and play continues with a new goal.9. Students write their final 6-digit number in words.10. Journal Prompt: What was your strategy for making the largest number? The smallest number?11. Discuss the strategies.
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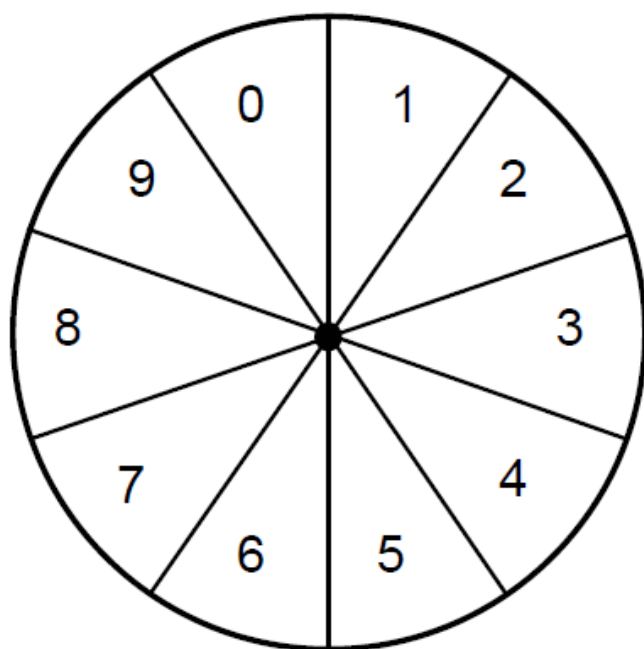
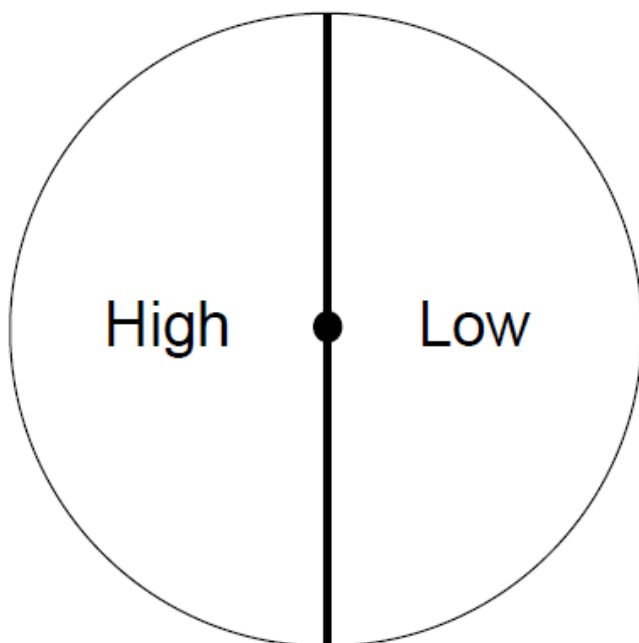
The Place is Valuable Digit Cards

4	9
3	8
2	7
1	6
0	5

Let's Make a Number, Part 2

<p>Materials</p> <p>Per student</p> <ul style="list-style-type: none"> • Digit Spinner • Paper clip • Game board (Copy it on both sides for more games.) <p>For group</p> <ul style="list-style-type: none"> • 1 High/Low spinner • 1 paper clip <p>Vocabulary</p> <ul style="list-style-type: none"> • Place value • Ones • Tens • Hundreds • Thousands • Ten thousands • Hundred thousands • Digit • Numeral <p>Warm-up More or Less 117,281</p> <ul style="list-style-type: none"> • Make it 1,000 more. • Make it 10,000 less. <p>Adapted from Clarifying Activities, TEKS Toolkit</p>	<p>TEKS Student Expectation: The student is expected to use place value to read, write (in symbols and words) and describe the value of whole numbers through 999,999. (3.1A)</p> <hr/> <p>Activity: Today we will play a game in which you try to build the largest or smallest number possible to learn more about place value.</p> <ol style="list-style-type: none"> 1. Teacher gives each student a spinner sheet, a paper clip, and a game board. 2. Select one student to spin the high/low spinner. The high/low spinner determines if they are trying to make the largest number possible or the smallest. (Place the paper clip in the center of the spinner and hold in place with an upright pencil. Flick the other end of the paper clip with a finger to spin.) 3. Teacher tells students to spin the digit spinner. The digit spinner determines the digit the players will write. After each spin, the player writes the number as a digit in one space on his or her game board. Once written, that digit cannot be moved. 4. The winner has the highest (or lowest) number and can read it, write it in words and expanded form. 5. Journal Prompt: What was your strategy for placing the digits to make the largest number? Smallest number? 6. Discuss strategies.
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Let's Make a Number, Part 2 Spinners



Let's Make a Number, Part 2 Game Board

_____ , _____

Expanded Form:

Written Form:

_____ , _____

Expanded Form:

Written Form:

_____ , _____

Expanded Form:

Written Form:

_____ , _____

Expanded Form:

Written Form:

53,313

fifty-three thousand,
three hundred thirteen

$$\begin{array}{r} 50,000+3,000 \\ +300+10+3 \end{array}$$

Example of 3 Way Match Cards

True Value

<p>Materials</p> <p>For group</p> <ul style="list-style-type: none"> • 6 sets digit cards (Run each set on a different color, for example: green, yellow, purple, pink, blue, and red.) <p>Vocabulary</p> <ul style="list-style-type: none"> • Ones • Tens • Hundreds • Thousands • Ten thousands • Hundred thousands • Place value • Digit • Numeral <p>Warm-up Flower Power The number is 84.</p> <p>Adapted from Dr. Lola May</p>	<p>TEKS Student Expectation: The student is expected to use place value to read, write (in symbols and words), and describe the value of whole numbers through 999,999. (3.1A)</p> <hr/> <p>Activity: Today we will use digit cards to make numbers and change them to get different values.</p> <ol style="list-style-type: none"> 1. Teacher shuffles the colored digit cards and distributes them evenly among the students. 2. Teacher assigns each set of color cards a place value from the ones through the hundred thousands. Write the color code on the board using words and numerals. <ul style="list-style-type: none"> • Green = hundred thousands • Yellow = ten thousands • Purple = thousands • Pink = hundreds • Blue = tens • Red = ones 3. Teacher asks students to work together to assemble the number 436, 689 using the appropriate digits and colors. 4. Students look through their cards to create the requested number and lay it out on the white/chalk board tray. A student volunteers to read and write the number. 5. Teacher guides students through place value work by directing actions and asking questions such as the following: <ul style="list-style-type: none"> • How can we make a number that is 1000 greater? Look at your cards and make it happen. (Student having the purple 7 would replace the purple 6.) A student reads and writes the new number. • Now make the number 100 less. (Student having the pink 5 would replace the pink 6.) A student reads and writes the new number. • Now let's make the number 20,000 greater. Read and write the new number. • Who has the green 7? What is the value of that 7? If we exchange the green 4 for the green 7, what have we done to our number? • What should we do if we want to get rid of all the tens? 6. Teacher announces the next number (85,760) and students form it. 7. Teacher directs actions and asks similar questions as those in step 5.
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8. Then students create the greatest 6-digit number possible using the numbers and place values in their hands. Share with the group.
9. Students create the least 6-digit number possible using the numbers and place values in their hands. Share with the group.
10. Students pass one card to the person to the right and adjust to a new lowest number.
11. Journal Prompt: Explain the difference between a 3 in the hundreds place and a 3 in the hundred thousands place.

*Can use the same digit cards from
“The Place is Valuable” activity



EXIT TICKET



I really understand _____

I don't quite understand _____



EXIT TICKET



I really understand _____

I don't quite understand _____



Display the Digits

0 1 2 3 4 5 6 7 8 9



Get Started
 or 

Explain how to answer each question.
 Display each 0 – 9 tile exactly once.
 If you have a partner, take turns.

a. How many digits do you use to write ten hundreds in standard form?

b. In standard form, one thousand five hundred fourteen has which digit in the tens place?

c. In standard form, $6,000 + 500 + 9$ has which digit in the hundreds place?

d. In standard form, one thousand four hundred sixty-five has which digit in the tens place?

e. In standard form, $6,000 + 500 + 9$ has which digit in the tens place?


f. Thirty hundreds equals how many thousands?

g. In standard form, one thousand four hundred seventeen has which digit in the ones place?

h. The greatest four-digit number begins with which digit?

i. Four thousand six hundred eighty has which digit in the tens place?

j. Twenty tens equals how many hundreds?

If you have more time 

Make up other questions like these.
 Ask your partner to display the answers with 0 – 9 tiles.

Display the Digits



Explain how to answer each question.
 Display each 0 – 9 tile exactly once.
 If you have a partner, take turns.

a. Say the greatest four-digit number with the digits 1, 7, 3, and 4. Which digit is in the hundreds place?

b. Say the greatest four-digit number with the digits 4, 6, 0, and 2. Which digit is in the tens place?

c. Say the least four-digit number with the digits 6, 0, 2, and 5. Which digit is in the hundreds place?

d. Say the least four-digit number with the digits 3, 9, 6, and 2. Which digit is in the ones place?

e. Say the least four-digit number with the digits 7, 8, 0, and 9. Which digit is in the tens place?

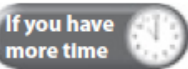
f. Say the greatest four-digit number with the digits 4, 7, 1, and 5. Which digit is in the ones place?

g. Say the least four-digit number with the digits 1, 7, 3, and 4. Which digit is in the ones place?

h. Say the least four-digit number with the digits 4, 7, 1, and 5. Which digit is in the tens place?

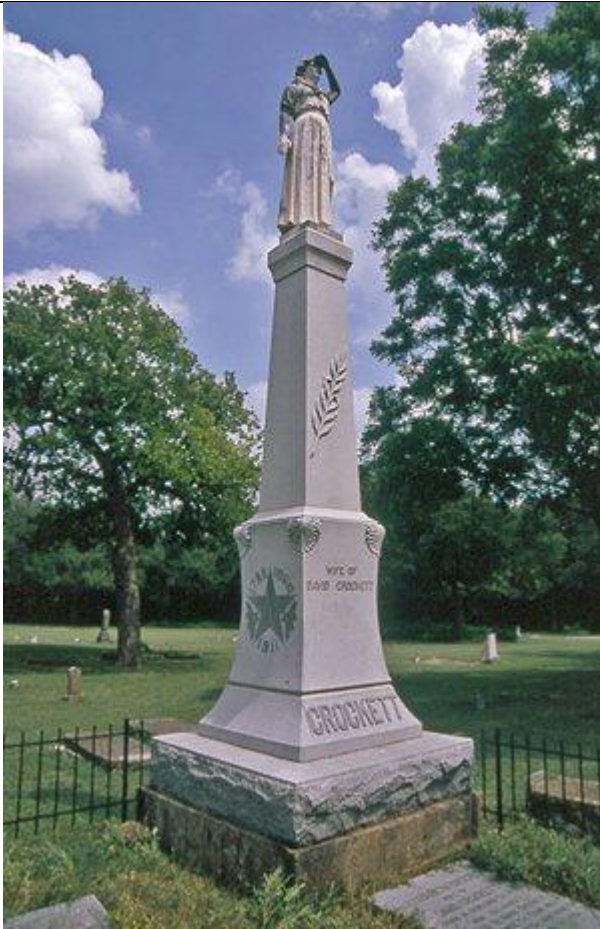
i. Say the least four-digit number with the digits 8, 7, 6, and 9. Which digit is in the thousands place?

j. Say the number that is two hundred more than 2,900. Which digit is in the thousands place?

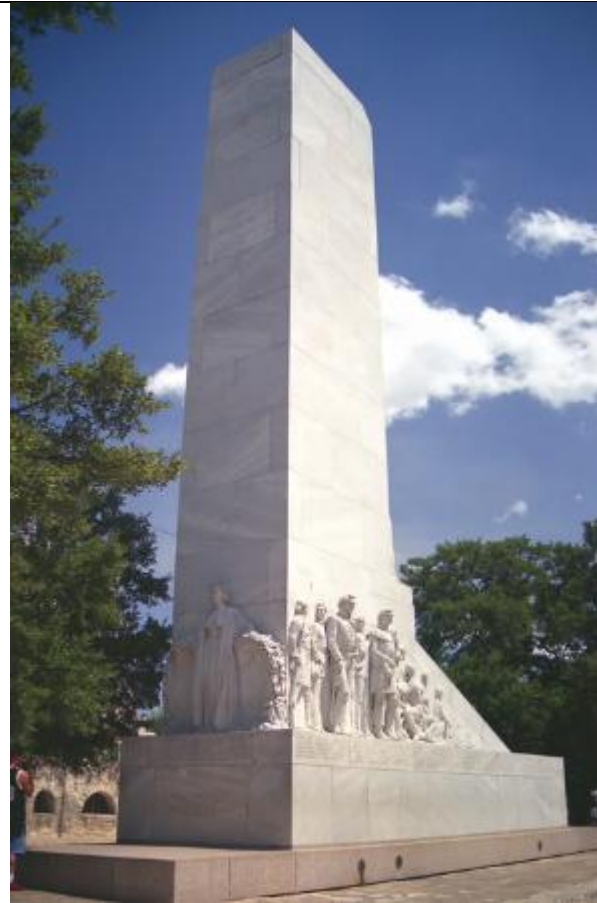


Make up other questions like these.
 Ask your partner to display the answers with 0 – 9 tiles.

Ordering Monument Heights



Davy Crockett Monument
336 in.



Alamo Cenotaph
720 in.



Texas Heroes Monument
888 in.



Texas State Capitol
3,636 in.



San Jacinto Monument
6,840 in.



Sam Houston Statue
924 in.

Name: _____

May I Have Your Order, Please?

Write the numbers in the table and order them on the lines below.

Th	,	H	T	O

Now put them in order of least to *GREATEST*.

Th	,	H	T	O

Now put them in order of shortest to *TALLEST*.

Th	,	H	T	O

Now put them in order of *GREATEST* to least.

Th	,	H	T	O

Now put them in order of *LONGEST* to shortest.

Nombre: _____

Escribe los números en la tabla y los escribe en orden en las líneas.

M,	C	D	U

Ahora, pon en orden de menor a MAYOR.

M,	C	D	U

Ahora, pon en orden de más bajo a MÁS ALTO.

M,	C	D	U

Ahora, pon en orden de MAYOR a menor.

M,	C	D	U

Ahora, pon en orden de MÁS LARGO a más corto.

Name: _____ Date: _____

Numbers Between Worksheet

Find the number that is between the two given numbers.

1.

1,239		1,318
-------	--	-------

A 1,239

B 1,319

C 1,376

D 1,238

2.

3,642		3,771
-------	--	-------

A 3,772

B 3,689

C 3,779

D 3,641

3.

5,128		5,215
-------	--	-------

A 5,189

B 5,216

C 5,228

D 5,127

4.

7,641		7,789
-------	--	-------

A 7,640

B 7,790

C 7,689

D 7,799

Find the number that is **NOT** between the two given numbers.

5.

9,153		9,166
-------	--	-------

A 9,165

B 9,159

C 9,154

D 9,149

6.

8,814		8,904
-------	--	-------

A 8,876

B 8,899

C 8,810

D 8,815

7.

4,880		4,993
-------	--	-------

A 4,949

B 4,879

C 4,992

D 4,890

8.

2,415		2,553
-------	--	-------

A 2,504

B 2,404

C 2,418

D 2,550

Read each of the following problems and circle the correct answer.

9.

The table below shows the number of students at four different elementary schools.

<i>School</i>	<i>Number of Students</i>
Aiken	4,267
Arapaho	4,508
Dover	4,491
Bowie	4,613

Which school had more than 4,390 but less than 4,505?

- A Aiken
- B Arapaho
- C Dover
- D Bowie

10.

The table below shows the number of pennies collected during the *Save Your Pennies* contest.

<i>Grade Level</i>	<i>Number of Pennies</i>
Third	1,987
Fourth	1,789
Fifth	1,879
Sixth	1,897

Which grade level had more than 1,880 and less than 1,979?

- A Third
- B Fourth
- C Fifth
- D Sixth

11.

The table below shows the amount of pizzas sold during the summer at Pizza Inn.

<i>Kind of Pizza</i>	<i>Number of Pizzas Sold</i>
Pepperoni	7,846
Sausage	7,876
Cheese	7,844
Vegetable	7,859

Pizza Inn sold more than 7,849 but less than 7,870 of which kind of pizza?

- A Pepperoni
- B Sausage
- C Cheese
- D Vegetable

12.

The table below shows the number of cars Mario counted on his road trip to San Antonio.

<i>Type of Car</i>	<i>Number of Cars</i>
Truck	367
Convertible	402
Sports Car	384
Mini-Van	391

Mario counted more than 385 but less than 400 of which type of car?




- A Truck
- B Convertible
- C Sports Car
- D Mini-Van

Name: _____ Date: _____

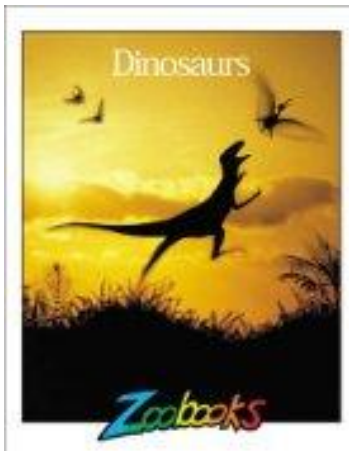
Librarian, Get to Work!

You have been hired as a librarian at the public library to reshelve non-fiction books. First, to make your job easier and quicker, organize your books on the cart from least to greatest. Then be sure to place the books in the correct spots on the correct shelves. Finally, you will have an assistant to train. Make a handbook explaining how to put the books in order and how to know where to put the books.

1. Cut out the books and glue them on the cart from least to greatest.
2. Write the title of the book and its call number in the correct spot of the bookshelf.
3. Make a handbook explaining how to put the books in order and how to know where to put the books for your assistant.

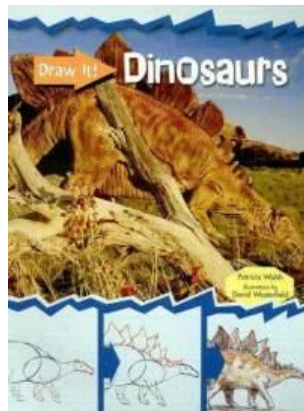
	3 Mastered 	2 Developing 	1 Emerging 
Ordering	I placed all the library books in order on the cart from least to greatest!	I placed 7, 8, or 9 library books in order on the cart from least to greatest.	I tried to place the library books in order, but made several mistakes.
Placing Between	I placed all the library books on the right shelf and in the right spot!	I placed 7, 8, or 9 library books on the right shelf and in the right spot!	I tried to place the library books on the right shelf and in the right spot, but made several mistakes.
Understanding of Ordering Numbers	I could clearly teach my assistant how to order the books and place the books.	I could teach my assistant, but some parts were still unclear.	I can't teach my assistant because I still need help doing my job.

Dinosaurs



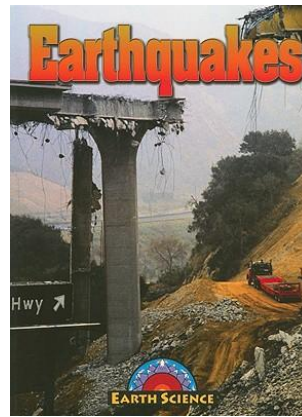
5,679

Draw It! Dinosaurs



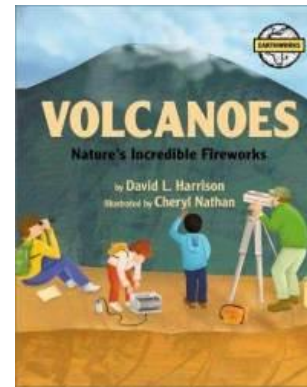
7,436

Earthquakes



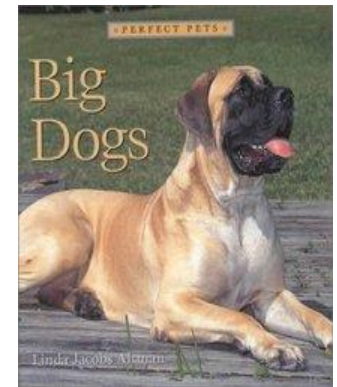
5,122

Volcanoes: Nature's Incredible Fireworks



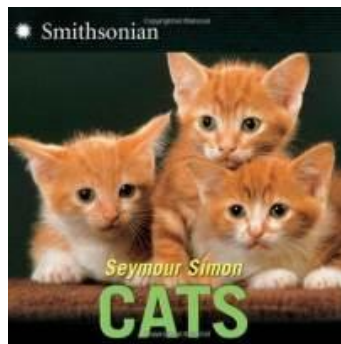
5,121

Big Dogs



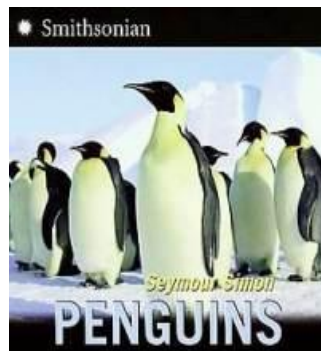
6,367

Cats



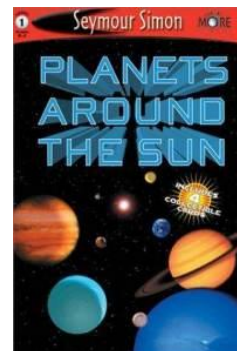
6,368

Penguins



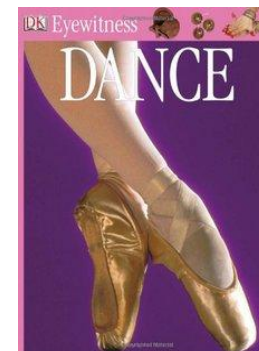
5,984

Planets Around the Sun



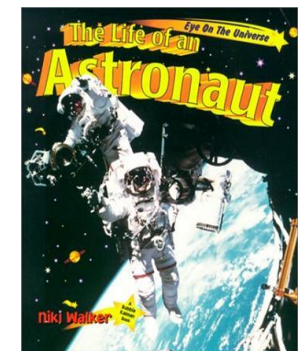
5,234

Dance



7,928

The Life of an Astronaut



6,294

Name: _____

Date: _____

Shelve it!

<p>Call Number 5,110 - 5,240</p>	<p>All about Earth 5,116</p>	<p>Tornados 5,119</p>	<p> </p>	<p> </p>	<p>Earthquakes in Japan 5,225</p>	<p> </p>	<p>Jupiter: The Planet with Rings 5,240</p>
<p>Call Number 5,640 - 5,990</p>	<p>All about Fossils 5,640</p>	<p>T-Rex Fossils 5,668</p>	<p>Dinosaurs that Fly 5,675</p>	<p> </p>	<p>All about Birds 5,980</p>	<p> </p>	<p>Birds that Don't Fly 5,990</p>

<p>Call Number</p> <p>6,000 - 6,500</p>	<p>Working in Space</p> <p>6,198</p>		<p>Pets!</p> <p>6,359</p>	<p>Taking Care of Pets</p> <p>6,363</p>			<p>House Cats</p> <p>6,370</p>
<p>Call Number</p> <p>7,420 - 7,950</p>	<p>Draw Your Heart Out</p> <p>7,432</p>		<p>Become an Artist</p> <p>7,440</p>	<p>All about the Arts</p> <p>7,918</p>	<p>Ballet</p> <p>7,919</p>	<p>Hip-Hop Dance</p> <p>7,921</p>	