PLACE VALUE PROJECT

BUILD A NUMBER TOWN

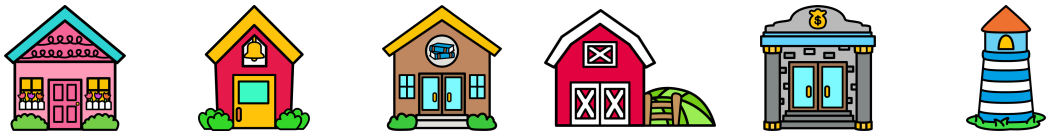


GRADES 3-4

40 PAGES 3 LEVELS

Bright Path Sped

Start Here: Number Town



Your students become the **mayor of Number Town**, an invented town with six buildings. Every building has two number signs. On each building page the child reads one sign in one form and writes it the other two ways: **standard form** (4,052), **expanded form** (4,000 + 50 + 2) and **word form** (four thousand, fifty-two). Three place value clues about the first sign follow. The same six buildings come at three levels, and the child ends with a Town Plan and a Number Book of their own numbers.

The three steps

1. **Welcome.** Read the card (page 5) together and sign the contract (page 4). Cut the badge and stamps (page 6). 2. **Build.** Give each child the six building pages for one shape. A finished building earns its stamp on the town map (page 7). 3. **Plan.** The Town Plan (page 8), the Number Book (page 27) and the self-check (page 28).

What is inside

Part	Pages	What it is
Welcome, Mayor	4-5	The contract to sign, and a place value card with three worked examples.
Badge, stamps, map	6-7	A mayor badge and seven stamps to cut, and a town map to glue them on.
Town plan	8	The child picks six numbers of their own, one for each building.
Circle buildings 1-6	9-14	3-digit numbers (hundreds).
Square buildings 1-6	15-20	4-digit numbers (thousands).
Triangle buildings 1-6	21-26	5-digit numbers (ten thousands).
My number book, self-check	27-28	Four of the child's own numbers in all three forms, then tick boxes to check the work.
Examples	29-30	A building page and a number book completed by Sam, an invented student.
Answer keys	31-37	One page per building with all three levels, plus the card, plan and number book.
Family letter, certificate	38-39	A note home and a mayor certificate to fill in.

Three levels, marked with a shape

● **Circle:** 3-digit numbers (hundreds). ■ **Square:** 4-digit numbers (thousands). ▲ **Triangle:** 5-digit numbers (ten thousands).

The shape is the only mark of the level, so three children at one table can work three levels. 36 number signs and 54 place value clues in all; 20 signs have a zero that holds a place. Nothing is scored.

PREVIEW

My name _____



WELCOME, MAYOR!

Number Town

Read about your town. Then sign your contract.

Dear Mayor, Number Town needs number signs on every building. A number can be written three ways. Here is one number: 4,052.

Standard form	Expanded form	Word form
4,052	4,000 + 50 + 2	four thousand, fifty-two

Your six buildings



1. Homes



2. School



3. Library



4. Farm Stand



5. Bank



6. Lighthouse

My shape: ▢ ● ▢ ■ ▢ ▲

Mayor's contract

I, _____, accept the job of Mayor of Number Town. I will write every number three ways, check that the three match, and put a zero in every empty place.

Signed _____ **Date** _____

PREVIEW

My name _____



KEEP THIS CARD

How a number works

Read the three numbers. Watch where the zero goes.

●

Hundreds	Tens	Ones
3	0	6

Standard form 306
Expanded form 300 + 6
Word form three hundred six

■

Thousands	Hundreds	Tens	Ones
4	0	5	2

Standard form 4,052
Expanded form 4,000 + 50 + 2
Word form four thousand, fifty-two

▲

Ten thousands	Thousands	Hundreds	Tens	Ones
3	8	4	0	7

Standard form 38,407
Expanded form 30,000 + 8,000 + 400 + 7
Word form thirty-eight thousand, four hundred seven

A zero holds a place.

In 4,052 there are no hundreds, so the hundreds place gets a zero. It adds nothing, so it is left out of the expanded form and the word form.

PREVIEW

My name _____



MY TOWN MAP

Number Town

Glue each stamp on its lot. Write the number on the sign.

Number	Number	Number	Number
glue stamp here Homes	glue stamp here School	glue stamp here Library	glue stamp here Farm Stand

Number	Number	Biggest number	My name
glue stamp here Bank	glue stamp here Lighthouse	glue stamp here Town Hall	glue stamp here Mayor

PREVIEW

My name _____



BUILDING 1

Homes

Read the sign. Write the number the other two ways.

The homes on Maple Road need number signs. Write each number three ways.

Sign 1: People living on Maple Road

Standard form: **428**

Expanded form: _____

Word form: _____

Sign 2: Bricks used for the homes

Standard form: _____

Expanded form: _____

Word form: **three hundred five**

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit in the hundreds place is _____

In Sign 1, the digit 2 is in the _____ **place**

10 more than Sign 1 is _____

PREVIEW

My name _____



BUILDING 3
Library

Read the sign. Write the number the other two ways.

The library keeps its numbers on signs by the door. Write each number three ways.

Sign 1: Books on the shelves

Standard form _____

Expanded form **800 + 30 + 6**

Word form _____

Sign 2: Visitors this year

Standard form **407**

Expanded form _____

Word form _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit 6 is in the _____ **place**

In Sign 1, the digit 3 is worth _____

10 more than Sign 1 is _____

PREVIEW

My name _____



BUILDING 5
Bank

Read the sign. Write the number the other two ways.

The bank counts coins and fair tickets. Write each number three ways.

Sign 1: Coins in the town jar

Standard form _____

Expanded form _____

Word form six hundred seventy-three

Sign 2: Tickets sold at the fair

Standard form 108

Expanded form _____

Word form _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit 6 is worth _____

In Sign 1, the digit 7 is in the _____ place

Write greater or less: Sign 1 is _____ than 637

PREVIEW

My name _____



BUILDING 1
Homes

Read the sign. Write the number the other two ways.

The homes on Maple Road need number signs. Write each number three ways.

Sign 1: People living on Maple Road

Standard form: **3,426**

Expanded form: _____

Word form: _____

Sign 2: Bricks used for the homes

Standard form: _____

Expanded form: _____

Word form: **five thousand, three hundred eight**

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit in the thousands place is _____

In Sign 1, the digit 4 is in the _____ **place**

100 more than Sign 1 is _____

PREVIEW

My name _____



BUILDING 3
Library

Read the sign. Write the number the other two ways.

The library keeps its numbers on signs by the door. Write each number three ways.

Sign 1: Books on the shelves

Standard form _____

Expanded form 4,000 + 800 + 10 + 5

Word form _____

Sign 2: Visitors this year

Standard form 6,057

Expanded form _____

Word form _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit 1 is in the _____ place

In Sign 1, the digit 8 is worth _____

100 more than Sign 1 is _____

PREVIEW

My name _____



BUILDING 5
Bank

Read the sign. Write the number the other two ways.

The bank counts coins and fair tickets. Write each number three ways.

Sign 1: Coins in the town jar

Standard form _____

Expanded form _____

Word form **five thousand, six hundred thirty-one**

Sign 2: Tickets sold at the fair

Standard form **9,004**

Expanded form _____

Word form _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit 5 is worth _____

In Sign 1, the digit 6 is in the _____ **place**

Write greater or less: Sign 1 is _____ **than 5,613**

PREVIEW

My name _____



BUILDING 2
School

Read the sign. Write the number the other two ways.

The school counted everything it has. Write each number three ways.

Sign 1: Books in the school

Standard form _____

Expanded form _____

Word form **seventy-two thousand, one hundred forty-five**

Sign 2: Pencils in the supply room

Standard form _____

Expanded form **20,000 + 8,000 + 900 + 6**

Word form _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit in the ones place is _____

In Sign 1, the digit 7 is worth _____

1,000 less than Sign 1 is _____

PREVIEW

My name _____



BUILDING 4

Farm Stand

Read the sign. Write the number the other two ways.

The farm stand needs signs for the apples and the seeds. Write each number three ways.

Sign 1: Apples picked

Standard form: **63,291**

Expanded form: _____

Word form: _____

Sign 2: Seeds in the garden shed

Standard form: _____

Expanded form: **80,000 + 40 + 5**

Word form: _____

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit in the thousands place is _____

Write greater or less: Sign 1 is _____ **than 63,219**

1,000 less than Sign 1 is _____

PREVIEW

My name _____



BUILDING 6
Lighthouse

Read the sign. Write the number the other two ways.

The lighthouse keeper counts boats and shells. Write each number three ways.

Sign 1: Boats that passed this year

Standard form _____

Expanded form **50,000 + 8,000 + 100 + 60 + 3**

Word form _____

Sign 2: Shells on the beach

Standard form _____

Expanded form _____

Word form **seventy thousand, four hundred twenty**

Clues about Sign 1 (use the standard form you wrote)

In Sign 1, the digit in the tens place is _____

In Sign 1, the digit 8 is worth _____

1,000 more than Sign 1 is _____

PREVIEW

My name _____



LAST STEP

Mayor's Check

Tick each line when it is true.

- [ ] My name is on every page.
- [ ] Every number has a comma in the right place.
- [ ] I put a zero in every empty place.
- [ ] My expanded form adds up to my standard form.
- [ ] I used a hyphen in numbers like twenty-three.
- [ ] I read my word forms out loud to a partner.

Add it up: does it match my standard form?

My expanded form _____ adds to _____

My expanded form _____ adds to _____

My expanded form _____ adds to _____

The hardest building was

_____

_____

because

_____

_____

One thing I learned about zeros

Mayor _____ Teacher _____

PREVIEW

My name Sam (an invented student)



MY OWN NUMBERS

My Number Book

Copy four numbers from your plan. Write each one three ways.



Homes

Standard form	2,140
Expanded form	2,000 + 100 + 40
Word form	two thousand, one hundred forty



School

Standard form	5,036
Expanded form	5,000 + 30 + 6
Word form	five thousand, thirty-six



Library

Standard form	3,807
Expanded form	3,000 + 800 + 7
Word form	three thousand, eight hundred seven



Farm Stand

Standard form	6,520
Expanded form	6,000 + 500 + 20
Word form	six thousand, five hundred twenty

PREVIEW

Answer Key: Building 2, School

The clues are about Sign 1. Check: the expanded form adds back to the standard form, and the word form reads back to it.

● Circle level (page 10)

Sign	Standard	Expanded	Word	Given
Sign 1 Books in the school	762	700 + 60 + 2	seven hundred sixty-two	Word
Sign 2 Pencils in the supply room	590	500 + 90	five hundred ninety	Expanded
Clue 1	In Sign 1, the digit in the ones place is = 2			
Clue 2	In Sign 1, the digit 7 is worth = 700			
Clue 3	10 less than Sign 1 is = 752			

■ Square level (page 16)

Sign	Standard	Expanded	Word	Given
Sign 1 Books in the school	7,142	7,000 + 100 + 40 + 2	seven thousand, one hundred forty-two	Word
Sign 2 Pencils in the supply room	2,960	2,000 + 900 + 60	two thousand, nine hundred sixty	Expanded
Clue 1	In Sign 1, the digit in the ones place is = 2			
Clue 2	In Sign 1, the digit 7 is worth = 7,000			
Clue 3	100 less than Sign 1 is = 7,042			

▲ Triangle level (page 22)

Sign	Standard	Expanded	Word	Given
Sign 1 Books in the school	72,145	70,000 + 2,000 + 100 + 40 + 5	seventy-two thousand, one hundred forty-five	Word
Sign 2 Pencils in the supply room	28,906	20,000 + 8,000 + 900 + 6	twenty-eight thousand, nine hundred six	Expanded
Clue 1	In Sign 1, the digit in the ones place is = 5			
Clue 2	In Sign 1, the digit 7 is worth = 70,000			
Clue 3	1,000 less than Sign 1 is = 71,145			

Notes

PREVIEW

Answer Key: Building 4, Farm Stand

The clues are about Sign 1. Check: the expanded form adds back to the standard form, and the word form reads back to it.

● Circle level (page 12)

Sign	Standard	Expanded	Word	Given
Sign 1 Apples picked	251	200 + 50 + 1	two hundred fifty-one	Standard
Sign 2 Seeds in the garden shed	960	900 + 60	nine hundred sixty	Expanded
Clue 1	In Sign 1, the digit in the tens place is = 5			
Clue 2	Write greater or less: Sign 1 is than 215 = greater			
Clue 3	10 less than Sign 1 is = 241			

■ Square level (page 18)

Sign	Standard	Expanded	Word	Given
Sign 1 Apples picked	8,203	8,000 + 200 + 3	eight thousand, two hundred three	Standard
Sign 2 Seeds in the garden shed	1,790	1,000 + 700 + 90	one thousand, seven hundred ninety	Expanded
Clue 1	In Sign 1, the digit in the hundreds place is = 2			
Clue 2	Write greater or less: Sign 1 is than 8,230 = less			
Clue 3	100 less than Sign 1 is = 8,103			

▲ Triangle level (page 24)

Sign	Standard	Expanded	Word	Given
Sign 1 Apples picked	63,291	60,000 + 3,000 + 200 + 90 + 1	sixty-three thousand, two hundred ninety-one	Standard
Sign 2 Seeds in the garden shed	80,045	80,000 + 40 + 5	eighty thousand, forty-five	Expanded
Clue 1	In Sign 1, the digit in the thousands place is = 3			
Clue 2	Write greater or less: Sign 1 is than 63,219 = greater			
Clue 3	1,000 less than Sign 1 is = 62,291			

Notes

PREVIEW

Answer Key: Building 6, Lighthouse

The clues are about Sign 1. Check: the expanded form adds back to the standard form, and the word form reads back to it.

● Circle level (page 14)

Sign	Standard	Expanded	Word	Given
Sign 1 Boats that passed this year	914	900 + 10 + 4	nine hundred fourteen	Expanded
Sign 2 Shells on the beach	520	500 + 20	five hundred twenty	Word
Clue 1	In Sign 1, the digit in the tens place is = 1			
Clue 2	In Sign 1, the digit 1 is worth = 10			
Clue 3	10 more than Sign 1 is = 924			

■ Square level (page 20)

Sign	Standard	Expanded	Word	Given
Sign 1 Boats that passed this year	6,478	6,000 + 400 + 70 + 8	six thousand, four hundred seventy-eight	Expanded
Sign 2 Shells on the beach	3,520	3,000 + 500 + 20	three thousand, five hundred twenty	Word
Clue 1	In Sign 1, the digit in the tens place is = 7			
Clue 2	In Sign 1, the digit 4 is worth = 400			
Clue 3	100 more than Sign 1 is = 6,578			

▲ Triangle level (page 26)

Sign	Standard	Expanded	Word	Given
Sign 1 Boats that passed this year	58,163	50,000 + 8,000 + 100 + 60 + 3	fifty-eight thousand, one hundred sixty-three	Expanded
Sign 2 Shells on the beach	70,420	70,000 + 400 + 20	seventy thousand, four hundred twenty	Word
Clue 1	In Sign 1, the digit in the tens place is = 6			
Clue 2	In Sign 1, the digit 8 is worth = 8,000			
Clue 3	1,000 more than Sign 1 is = 59,163			

Notes

PREVIEW

Our Place Value Project



Date: _____

Dear family of _____,

Your child has been named the Mayor of Number Town, a pretend town with a school, a library, a farm stand, a bank and a lighthouse. Every building has number signs, and your child writes each number three ways: standard form (4,052), expanded form (4,000 + 50 + 2) and word form (four thousand, fifty-two). They also answer clues about which digit is in a place and what that digit is worth. The numbers are made up for practice, and nothing has to be bought.

Ask your Mayor

- "Show me a number with a zero in it. Why does the zero matter?"
- "What is the 7 worth in 3,716? What is it worth in 7,316?"
- "Find a number on a sign, a receipt or a street. Can you write it in words?"

Find a big number at home. Write it three ways here.

Your child's mayor certificate comes home when the Number Book is finished.

From _____ Questions? _____

PREVIEW