Place Value Game: 5-Digits

Materials:

Large digits printed on paper
(print from pages 3-23 of this PDF)

How to play:

Hand out 5 different digit cards randomly to students. Each student should have only one card.

Ask the students to make a specific number.

They line up in the front of the room, with the digit cards held up for the class to see.

You can check to see if they've made the correct number. Then ask place value questions about the number.

Example:

You hand the digits 0, 1, 2, 7, and 9 to five different students.

Then you say, "Make the number twelve-thousand, seventy-nine."

The students line up in the front of the room, and hold the digits up for the rest of the class to see.

Liam has the 1. He lines up first and holds up his digit.
Emma has the 2. She lines up second and holds up her digit.
Lily has the 0. She lines up third and holds up her digit.
Mia has the 7. She lines up fourth and holds up her digit.
Noah has the 9. He lines up last and holds up his digit.

Together, they have made the number 12,079.

Then ask questions, such as:

Which student has the digit in the thousands place? (Emma)
Which student's digit has the greatest value? (Liam's)
What is the value of Liam's digit? (10,000)
What is the value of Mia's digit? (70)
What would we have if we added a thousand to this number? (23,079)

You also have the kids rearrange themselves to make the largest possible number using the digits. (97,210)

Or make the smallest possible number. (1,279 or 01,279)

Notes:

Students often find numbers with zeros particularly challenging.
(example: 44,090 is more difficult than 44,324)

For an added challenge, hand a comma card to a student and have him/her move it to the correct place.

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Digits: 2, 9, 0, 0, 3

Have students make the number thirty-nine thousand, twenty. (39,020)
  Choose a student to read the number aloud.
  Ask the student: If we added 1,000 to this number, what would we have? (40,020)

Have student 9 and student 2 switch places. (32,090)
  Choose a student to read the number aloud.
  Ask the student: If we added 100 to this number, what would we have? (32,190)

Make the largest number possible with these digits. (93,200)
  Choose a student to read the number aloud.
  Ask the student: If we subtracted 10, what would we have? (93,190)

Make the smallest number possible with these digits. (00239, or 239)
  Choose a student to read the number aloud.
  Ask the student: If we add 10,000, what would we have? (10,239)

Digits: 1, 4, 5, 5, 0

Have students make the number fifty thousand, four hundred fifty-one. (50,451)
  Choose a student to read the number aloud.
  Ask the student: If we added 1,000 to this number, what would we have? (51,451)

Have student 0 and student 4 switch places. (54,051)
  Choose a student to read the number aloud.
  Ask the student: If we subtracted 50, what would we have? (54,001)

Make the largest number possible with these digits. (55,410)
  Choose a student to read the number aloud.
  Ask the student: If we subtracted 1,000, what would we have? (54,410)

Make the smallest number possible with these digits. (01455, or 1,455)
  Choose a student to read the number aloud.
  Ask the student: If we added 9,000 to this number, what would we have? (10,455)

Digits: 9, 0, 6, 0, 9

Have students make the number sixty thousand, ninety-nine. (60,099)
  Choose a student to read the number aloud.
  Ask the student: If we added 1 to this number, what would we have? (60,100)

Have the students in the hundreds place and ones place switch positions. (60,990)
  Choose a student to read the number aloud.
  Ask the student: If we subtracted 50, what would we have? (60,940)

Make the largest number possible with these digits. (99,600)
  Choose a student to read the number aloud.
      Ask the student: If we subtracted 1, what would we have? (99,599)

1

1

2

2

3

3

4

4

5

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6

7

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8

8

q

q