

28. Introduction to the 2-Place Mat

- INTRODUCE THE 2-PLACE MAT
- IDENTIFY THE PLACE VALUE OF THE DIGITS

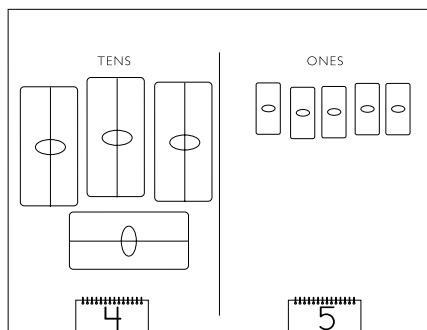
TEACHER NEEDS:

6 single blocks
3 blocks-of-10
2-place mat
digit flip cards

STUDENT NEEDS:

container of at least 20-50
single blocks
2 copies of 2-place mat (one as
a workspace, one to write on)
an additional copy of 2-place
mat for each container packed

🕒 25 minutes



TEACHER NOTE:

The value of each size block is different, so each has to go in its own place. This is where we get the term **place value**. The value of a block is determined by its place.

The idea that we must **pack as much as possible** comes from the fact that there can only be one digit in each place. With ten digits (0-9) in the base ten system, there can only be zero to nine blocks of each size in each place. Once a tenth block is added, the ten blocks must be packed to make the next larger size block and moved to the next larger place.

GROUP ACTIVITY:

1. Place a collection of blocks - three blocks-of-10 and six ones - where all the students can see them.
2. Show them the 2-place mat worksheet.
3. Ask what they see. (Two columns with the words tens and ones)
4. Explain that you are going to use the mat to help you organize the blocks to make it easy to tell how many.
5. Pick up a block-of-10 and ask where it should go. Allow for a discussion that comes to the conclusion that the bigger blocks are **blocks-of-10** and should go under where it says “tens.”
6. Do the same with a single block, this time concluding that the leftover blocks are single blocks or ones and that they need to go in the place for the “ones.”
7. Once the blocks are placed correctly, set the digit cards. (3 and 6)
8. Place the blocks where they can be seen easily and use the space on the mat to draw what they looked like on the mat. When students draw the blocks, there is no need for perfection. It is only important that the blocks are different in size and that blocks that can open have a line down the middle.
9. Next place a collection of three blocks-of-10 and 13 ones where all can see. Ask for a volunteer to place the blocks on the mat. (three blocks-of-10 in the tens column and 13 ones in the ones column)
10. Present two digit flip cards and ask a volunteer to set the digit cards to show the number.

11. The student will most likely struggle. He might use two cards to make the number 13 and then ask for another card. He may start with setting a “3” in the tens place and then continue to flip through the cards waiting for a “13.”
12. Explain that in our number system, we can only use one digit per place. That digit tells us how many of that size block we have.
13. Students will eventually see the need to pack up 10 of the ones to make a block-of-10. This concept, **pack as much as possible**, is essential to understanding our number system. Once the student has packed to show four blocks-of-10 and three ones, the digit cards can “write” the number.

INDEPENDENT WORK:

1. Given a container of blocks (each with more than 10 single blocks), students **pack the blocks as much as possible**.
2. Students place the blocks on the mat in the proper place.
3. Students write the number in the spaces for the digit cards.
4. Students draw what the packed blocks look like.
5. Have children exchange containers and repeat the activity.

Assessment:

DOES THE STUDENT:

- count a set of packed blocks
- write the correct number for a collection of packed blocks

Differentiation:

REINFORCEMENT:

- Do the activity with a small group of students where each student uses his/her own blocks and mat, but all work together.

EXTENSION:

- Give students a number and ask them to draw the blocks for that number.

Name: _____

TENS

ONES

