

# Base 10 Race

**Short description of activity:** Race against the clock to combine units of ones, tens, hundreds and thousands.

**Type of activity:** Content Connection, Team Building, Energizer

**Minimum Time Needed for Activity:** 10 minutes

**Grade Level:** 3rd, 4th, 5th

**Subject Area:** Math

## Materials:

- Base 10 cubes: ones, tens, hundreds and thousands
- One pair of dice for each pair of students.
  - If you do not have dice, students can use Fast Hands

## Set Up:

1. Divide students into pairs, spread throughout the room.
2. Place the Base 10 cubes on one side of the room, sorted by type with some space in between the groupings (pile all of the ones cubes on one desk, all of the ten sticks on another, 100 bricks on another and thousands in another).
3. Designate one spot in the front or middle of the room to be the pool for the counted cubes.

## Play:

1. Of the pairs of students, one is the dice roller, the other is the runner. Roles switch after every turn.
2. Set a timer for 3-5 minutes.
3. On the signal, one student of each pair rolls the dice and adds the numbers.
4. The runner collects base ten blocks in that amount, brings them to the pool of counted blocks and returns to their teammate.
5. Roles switch and the runner now rolls the dice and adds the number. The original roller is now the runner to bring cubes to the pool.
6. When there are enough blocks in the pool to combine into the next higher grouping, they are collected and returned to their original pile and replaced with the next higher grouping in the pool.
  - a. If there are ten ones, they are brought back to the pile of ones and a ten-stick is brought to the pool in its place. The same process is used for tens and hundreds.
7. Play until time runs out.
8. Looking in the pool, see if there are any blocks that need to be combined into the next place value.

Play a few times until students get the hang of it and play becomes automatic.

## Variations:

- Track the total from session to session. See if students can gather more blocks each successive time.
  - Can they attribute changes to anything? (new strategy, added people, absent people, etc)
- Play the game silently. If a student talks or makes an unnecessary noise, a five-second penalty is given to the group.

- Use dice with higher numbers.
- If doubles are rolled, that total needs to be removed from the pool and returned to their original pile.
  - If needed, larger units can be broken back down into smaller units to make this happen.
- Multiply the numbers on the dice to calculate the number of blocks to add to the pool.
- Use playing cards instead of dice, removing the face cards. Pairs of students each have a stack and put a card out to add.
- Have each pair gather the cubes into their own pile and see which pair/groups of pairs gather the most cubes in the allotted amount of time.

**Standards:**

**Math > Operations & Algebraic Thinking > Add and Subtract within 20; Represent and solve problems involving addition and subtraction; Represent and solve problems involving multiplication and division.**

**P.E. Standards> The physically literate individual demonstrates competency in a variety of motor skills and movement patterns; The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance; The physically literate individual exhibits responsible personal and social behavior that respects self and others.**

Adapted from the activity as taught to RiseVT by  
Mrs. St. Pierre's 4th grade class  
Enosburg Falls Elementary School