# Rhythmical/skip counting inside a circle

- This movement exercise can be done as early as the second math block of first grade, and works well for the end of first grade and throughout second grade. The idea for this exercise (and the one below) comes from Henning Anderson's book, *Active Arithmetic*.

- Here is another way to experience rhythmical/skip counting. We'll use the 3's, which is represented by the circle shown here. It may be helpful in the beginning to draw a circle on the ground, but as the children become more proficient, drawing the circle may be unnecessary – the children can just see where the circle is in their imagination. Mark three places on the circle which are evenly spaced. The letters shown here should not be marked for the children (they are only shown here for the purpose of this explanation). We tell the children where "home" is on the circle (shown here as point "C").

- One child (the "number runner") starts on the circle at "home" (point C). The teacher starts counting, beginning with the word "begin": ("Begin, 1, 2, 3, 4, 5…"). The children then experience skip counting the 3's through this movement; the number runner returns home on 3, 6, 9, 12, etc. The whole class should say the number every time the number runner passes home. So, we hear the class speaking the numbers in the 3's, and the teacher saying the rest of the numbers. Perhaps, we can even have a three-circle (perhaps not drawn?) for every child in the class so that everyone can do it together.

- On another day, we can practice with the 2's, the 4's, or the 5's. The children will discover that with the 2's, they need to run around the circle quite quickly, and with the 4's or 5's they will move more slowly.

- At the end of second grade, this exercise can be done with two times tables simultaneously.
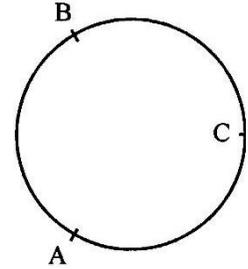
Two tables inside circles

- This movement exercise is great for third grade, but can be done starting at the end of second grade.

- This is an excellent way to show the relationship between two times tables.

- This activity is an expansion of the movement exercise called "*Rhythmical/skip counting inside a circle*" shown above.

- You will first need to review *rhythmical/skip counting inside a circle* from first grade. Once the children have become comfortable with working with one table at a time, you can then do two tables simultaneously – then the real fun begins! The above drawing shows the 3's table on the left and the 4's table on the right. One child is the number runner for the 3's circle, and another child is the number runner for the 4's table. They both start at "home" (shown above as "C"). The teacher counts steadily, as both runners move around their circles (at different rates), both in a clockwise direction. At the moment the teacher says "3", the runner on the 3's circle is back home, but the 4's runner is at F. Whenever the two runners reach home at the same time, they should clap hands together. The rest of the class is carefully watching – half of them speaking the numbers every time the 3's runner reaches home (3, 6, 9, 12, etc.), and the other half of the class speaking the numbers every time the 4's runner reaches home (4, 8, 12, 16, etc.). When we are finished – perhaps counting all the way to 60 – we ask the class when did the two runners clap hands? The class can then discover that the "clapping numbers" are the numbers in the 12's table!

- Once the students have become proficient, we can choose different tables to work with each day. The children may be surprised to see that the "clapping numbers" are not always the product of the two tables we are working with. For example, with the 3's and 4's tables the clapping numbers are the 12's table, but with the 3's and 6's tables the clapping numbers are the 6's table, and with the 10's and 4's table the clapping numbers are the 20's table.

- This whole exercise sets the stage for common multiples and common denominators in fourth grade. It will be good to revisit this at that time.