All the Right Places

Understanding place value is an essential to math success in the upper elementary grades. As far as math concepts go though, it can be pretty tricky. What is it that makes 1 worth more or less than the same digit in the tens or hundred place? Help cement the concept of place value with this simple activity that involves creating a set of dials made from Styrofoam cups.

What You Need:

- 4 Styrofoam cups
- Marker

What You Do:

1. Hold one of the cups on its side so that the opening is to your left. Use the pen to number 0–9 around the rim (see photo). Repeat with the remaining three cups.
2. Write “ones” on the side of one cup. This is your single-digits place value cup. Set it aside.
3. On another cup, write a zero on the body of the cup next to each digit, 0-9 (see photo). The numbers read 0 (rim) 0 (cup body), 1 (rim) 0 (cup body), 2 (rim) 0 (cup body) etc. Your young learner can now see that the digits on the rim stand for 10, 20, etc. Reinforce this by writing “tens” on the side of the cup. On the third cup, write “00” on the cup body beside each digit, then write “hundreds” on the side of the cup. On the last cup, write “000” beside each digit and thousands on the side of the cup.
4. Stack the cups in the correct order (thousands, hundreds, tens, ones).
5. Give them to your young learner and have him turn the dials to write the year he was born. Can he tell you which digit represents the tens? Have him slide the cups apart to check his answer.
6. Repeat Step 5 with a variety of 4-digit numbers, challenging him to identify various place values. Have him check his answer each time.

Expand on this activity when your child can consistently name the correct digit by unstacking the cups. Now he must arrange the cups in the right order before recreating the next set of numbers.

When you start working with decimals this activity is also a useful way to introduce tenths, hundredths, and thousandths.