

Teaching Strategies - Numbers 0 to 10

First of all, we focus on the recognition of the numbers 0 to 10. We use four main ways to represent a number:



It is important that your student recognizes the numbers 0 to 10 in each of the forms.

e.g., the student can recognize 7 objects, the student can write "7", say "seven" and read the word "seven". The student needs to be able to complete any of these activities when given a number in any of the different forms.

N.B. Writing the word "seven" correctly is a more challenging task so this may not be achieved until later, especially if your student's writing skills and spelling are still developing.

Ten Frames

Ten frames assist your student to subitize (recognize instantly without counting) the numbers to 10. A ten frame is a 5x2 grid with counters placed on it showing the numbers to 10.

There are two established ways of placing the counters on a ten frame:

- in pairs (red dots) introduced first
- in rows (purple dots) introduced second

Subitizing, recognizing a number without counting, is essential for a student's understanding of number.

The different layouts of the numbers show different aspects of the same number. For instance the pairs layout shows 7 is odd, one more than 6, 3 less than 10 and so on; the rows layout shows 7 as 2 more than 5, 3 less than ten, 4 plus 3 more, and so on. By showing different arrangements of the same number, a student becomes more flexible in thinking about numbers. This will help the student to use numbers flexibly as necessary for solving a mathematics problem.

7

numbers:

Activities to help your student subitize

- Say the number "seven" and have your student show it on blank ten frames with counters. Use the double ten **even** frame.
- Flash the card with a number (numeral) and have your student show counters on a blank ten frame and then say and/or write the number.
- Flash a card with a ten frame on it and ask the student to name the number, and/or write

Recognizing numbers to 10

Using the app to help your student subitize numbers:

PROFESSOR PETE'S

SADGETS

Close the EQUATION box as it is not needed.

- Do not put anything up on the ten frame app to start with.
- Say the number e.g. "seven", and have your student show that many counters on a blank ten frame with counters. Use the single ten frame.
- Use the app and show the students that number arranged on the ten frame.
- Show them how the numeral is written
- Show them how the number is spelled (this need not be done right away. This box can be closed if preferred.)
- Explain the arrangement you want students to use to show that number. This example shows the pairs arrangement, but the rows can be used if preferred.
- Talk about the number and how you can "see" it straight away without counting.
- Hide the counters by clicking on the counters box.
- Ask students to show you another number: type in "6" in the keypad. Don't tell them the number, expect them to read the numeral and show the number.
- Flash a card with a ten frames on it and ask the students to name the number, and/or write the numeral.
- Flash the card with the number name (written) and ask the students to show it on a ten frame or to say it or write the numeral.





TEN FRAMES