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- How many people are there in your family?
- How much money do you pay each week for your accommodation?
- How much money would you like to win on Lotto?
- What would your weekly food bill be?
- How many different houses have you lived in?
- How far do you have to walk to the nearest shop?

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- What do you think is the most common size of Australian families?
- How much money do you think I would need to buy a new car?
- How much rent would you expect to pay each week for a two bedroom apartment?
- How old do you think the oldest living person is?
- How many people do you think there are in Australia?

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If the student's ability to read and write these numbers appears shaky, it is a good idea to spend a period of time manipulating numbers on a Place Value Chart (see Fig. 1). The Place Value Chart is a fantastic learning aide.

- Print it on a large sheet of paper, laminate if possible and cut up a collection of small squares of cardboard each with a single digit, 1 – 9 on them.
- Ask questions about number such as those above. The student builds the number onto the Place Value Chart, reads it, and writes it as a number and also in words.

If it becomes apparent that the student has a limited grasp of the size of numbers an illustrative activity can be to demonstrate in a concrete way the implications of Place Value and the power of 10.

Just what are numbers and what do they signify?

Read through this activity so you can prepare the props you will need.

Really Big Numbers:

1. Hold up a piece of paper. How many?
Answer – 1
2. Count out ten pieces of paper and staple them together. How many?
Answer – 10 (Have prepared another 9 stapled groups of 10)
3. Putting the 10 groups of 10 together. How many?
Answer – 100
4. Place the 10 groups of 10 into a folder. If I have 10 of these folders – how many?
Answer – 1,000
5. The 1000 is in a filing drawer and I have ten drawers in the cabinet. How many?
Answer – 10,000.
6. I have ten of these filing cabinets in a room. How many pieces of paper?
Answer – 100,000.
7. There are ten rooms on one floor of a building each with 10 filing cabinets. How many pieces of paper?
Answer 1,000,000.
8. The building has 10 storeys of these floors. How many pieces of paper?
Answer 10,000,000.

Keep going as long as you wish.....

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Language to use repeatedly:

“Ten of these is one of these”, “ten of these is one of these, “ten of these is one of these.”

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Really Small Numbers:

Now switch the activity to take account of how small numbers can get.

1. Give each student a square piece of paper. This is 1 (one).
2. Students tear the paper into ten pieces. (an instructive activity in itself). One tenth.
3. Now ask them to tear one of the pieces into ten. One hundredth
4. The next step – tear one of the pieces into ten. One thousandth.
5.

This activity soon comes to a halt – but students get the idea!!! The importance of the “th” also can be stressed as it becomes very apparent.

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Some useful websites:

There are many versions of this approach on the Internet which are interesting to investigate:

- http://www.dest.gov.au/NR/rdonlyres/5D4B0095-AA36-4ED9-BD50-07A931B22C91/1645/understanding_place_value.pdf
- http://nlvm.usu.edu/en/nav/frames_asid_209_g_1_t_1.html?open=activities&from=topic_t_1.html
- http://nlvm.usu.edu/en/nav/frames_asid_152_g_1_t_1.html?from=topic_t_1.html
- http://nlvm.usu.edu/en/nav/frames_asid_154_g_1_t_1.html?from=topic_t_1.html

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Foot Notes:

1. <http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl2.htm>

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