DECIMALS

Having recognised similarities between new problems and problems I have solved before, I can carry out the necessary calculations to solve problems set in unfamiliar contexts.

Pupils should be able to:

- Add and subtract mentally   -   2 digit decimals, eg 7.3 + 8.2
  Multiply and divide mentally -   4 digit decimals by 10 or 100
                                            -   any number by 10, 100 or 1000
- Add and subtract with written working - 4 digit with at most 2 decimals places
- Multiply and divide with written working
    - 4 digit numbers with 2 decimal places by a single digit
    - harder problems eg $18.697 \times 40\,000$, 0.6×0.3, $0.08 \div 0.2$
- Round numbers to given numbers of decimal places
- Round numbers to 1, 2 or 3 significant figures

 PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

	DEVELOPING	CONSOLIDATING	SECURE
Add, subtract, multiply and divide mentally. (QUESTIONS 1 & 2)			
Add and subtract with written working. (QUESTIONS 3 & 4)			
Multiply and divide with written working. (QUESTIONS 5 & 6)			
Round numbers to a given decimal place. Round to 1, 2, 3 significant figures. (QUESTIONS 7 - 11)			

mymaths lessons: library/number/Decimals/ Adding Decimals Mental
                              library/number/Decimals/Add Subtract Decimals
                              library/number/Estimating and Accuracies/ Rounding Decimals
                              library/number/Estimating and Accuracies/ Decimal places
                              library/number/Estimating and Accuracies/ Significant Figures

1. a) 8.6 + 7.3   b) 14.5 + 5.8   c) 9.7 – 3.2   d) 18.5 – 0.6   e) 54.42 x 10

    f) 61.73 ÷ 10   g) 342.7 x 100   h) 6.75 x 1000   i) 856.4 ÷ 100   j) 72.45 ÷ 1000

2. James the joiner has a 3·5 metre plank of wood. He cuts three pieces, 1·35 m, 97 cm
   and 76 cm from it. What length of plank is left ?

3.   a)4352 + 6543   b) 754 + 3245   c) 8975 – 3261
            d) 3600 – 4356   e) 10000 - 5467

4. Caitlin bought a caravan for £32 300. She sold it two years later, making a loss of
   £2460. For how much did Caitlin sell her caravan?

5. a) 54.78 x 6   b) 105.5 x 9   d) 0.056 x 3   e) 0.5 x 0.01   f) 0.6 ÷0.3

6. Round to 2 decimal places: a) 23.743   b) 4.987   c) 4.565   d) 14.999

8. The list shows the exact running times of 5 athletes.
   Round these numbers to 1 decimal place then find the average of these times:
   10.765,   12.35,   11.989,   14.54,   9.98.

9. Round to 2 significant figures: a) 507   b) 8128   c) 37.77   d) 7.321

10. Round to 3 significant figures: a) 63 095   b) 12.827   c) 0.04693   d) 0.00543

11. My bank interest for a year worked out at 2.7% of £23 440. Calculate my interest,
    correct to 2 sig. figs.