

# Palindrome Fun

A *palindrome* is a word that reads the same forwards and backwards.

For example *mum*, *kayak*, *racecar*

1. Give two other words that are also palindromes

2. The following sentences are palindromes.

For each one, check it is a palindrome and circle the middle letter (or letters):

- (a) Step on no pets
- (b) Eva, can I stab bats in a cave?
- (c) Mr. Owl ate my metal worm



3. Use the internet to find another palindrome sentence (or make up your own)

Numbers can also be palindromes. For example, 22, 151, 23532

4. Give two other numbers that are palindromes

5. (a) Why is the 21<sup>st</sup> of February 2012 a palindrome?  
(b) Give any other date in history that is a palindrome  
(c) When is the next palindrome date?  
(d) How old will you be on that day?

6. The following method always ends up with a palindrome:

- Step 1: Start with any whole number
- Step 2: Reverse the number
- Step 3: Add this number to the one before
- Step 4: If this is a palindrome stop, else return to Step 2 with this number

- (a) Start with the number 14 and follow the steps above. You should get 55.
- (b) Start with the number 67 and follow the steps above. You should get 484.
- (c) Try starting with the number 156. Where do you finish?
- (d) Choose any other three digit number and work out where you finish.
- (e) What happens if you start with a number that is already a palindrome?

