

Name:..... Date:.....

# Nanochemistry

## The smallest thing...

This table shows how scientists deal with very big numbers. Fill in the blank boxes in the table.

| Number                            | Written as a multiple of ten   | Written as a power of ten | One way to say it        | Another way to say it                      |
|-----------------------------------|--|---------------------------|--------------------------|--|
| 10                                | 10   | 10                        | Ten                      | Ten  |
| 100                               | 10×10  | 10 <sup>2</sup>           | Ten squared              | One Hundred                                |
| 1000                              | 10×10×10   |                           |                          |  |
| 10 000                            | 10×10×10×10  |                           | Ten to the power of four |  |
| 1 000 000                         | 10×10×10×10×10×10  |                           |                          |  |
| 1 000 000 000                     | 10×10×10×10×10×10<br>×10×10×10   |                           |                          | One Billion                                |
| 10 000 000 000 000<br>000 000 000 | 10×10×10×10<br>10×10×10×10×10×10<br>10×10×10×10×10×10<br>10×10×10×10×10×10 |                           |                          | Ten Thousand<br>Million Million<br>Million |

### Did you know?

- There are more stars in the sky than grains of sand on earth.
- The number of air molecules you breathe in, in one gulp, is about the same as all the stars in the Universe.

## Answers

| Number                            | Written as a multiple of ten   | Written as a power of ten | One way to say it                     | Another way to say it                      |
|-----------------------------------|--|---------------------------|---------------------------------------|--|
| 10                                | 10   | 10                        | Ten                                   | Ten  |
| 100                               | 10×10  | 10 <sup>2</sup>           | Ten squared                           | One Hundred                                |
| 1000                              | 10×10×10   | 10 <sup>3</sup>           | <b>Ten cubed</b>                      | <b>One Thousand</b>                        |
| 10 000                            | 10×10×10×10  | 10 <sup>4</sup>           | Ten to the power of four              | <b>Ten Thousand</b>                        |
| 1 000 000                         | 10×10×10×10×10×10  | 10 <sup>6</sup>           | <b>Ten to the power of six</b>        | <b>One Million</b>                         |
| 1 000 000 000                     | 10×10×10×10×10×10<br>×10×10×10   | 10 <sup>9</sup>           | <b>Ten to the power of nine</b>       | One Billion                                |
| 10 000 000 000 000<br>000 000 000 | 10×10×10×10<br>10×10×10×10×10×10<br>10×10×10×10×10×10<br>10×10×10×10×10×10 | 10 <sup>22</sup>          | <b>Ten to the power of twenty-two</b> | Ten Thousand<br>Million Million<br>Million |