## Introduction to Mathematics

| Maths | English |  |  |
| :---: | :---: | :---: | :---: |
| $x \times y$ | x times y |  | x multiplied by y |
| $x+y$ | $x$ plus y |  | x add y |
| $x \div y$ | x divided by y |  | x over y |
| $x-y$ | x minus y | x takeaway y | x subtract y |
| $=$ | Equals |  |  |
| $x^{2}$ | x squared |  | $x$ to the (power of) two |
| $x^{3}$ | x cubed |  | $x$ to the (power of) three |
| $x^{n}$ | $x$ to the (power of) $n$ |  |  |
| $\sqrt[n]{x}$ | $\mathrm{N}^{\text {th }}$ root of x |  |  |
| $\sqrt{\mathrm{x}}$ | Square root of x |  |  |
| $\sqrt[3]{x}$ | Cubed root of x |  |  |
| $\frac{1}{2}$ | One half |  | One over two |
| $\frac{1}{3}$ | One third |  | One over three |
| $\frac{1}{4}$ | One quarter |  | One over four |
| $\frac{3}{4}$ | Three quarters |  | Three over four |
| $\frac{3}{10}$ | Three tenths |  | Three over ten |
| -3 | Negative three |  | Minus three |

Activity 1: Read these equations to your partner.

1. $302 \times 3$
2. $\sqrt{144}$
3. $5,684-3^{2}$

Listen to your partner and write the answer below:
1.

2.
3.

## Describing BIG and small numbers in English

| 100 | Hundred | $10^{2}$ |
| :--- | :---: | :---: |
| 1,000 | Thousand | $10^{3}$ |
| $1,000,000$ | Million | $10^{6}$ |
| $1,000,000,000$ | Billion | $10^{9}$ |
| $1,000,000,000,000$ | Trillion | $10^{12}$ |

Saying BIG numbers:
782, 356 Seven hundred and eighty two thousand, three hundred and fifty six

Nine hundred and eighty four million, six hundred and three thousand, one hundred and forty one

Saying small numbers:
0.006589

Zero point zero zero six five eight nine

Very, very BIG and very, very small numbers: Scientific Notation (Standard form)
$7,928,000,000,000,000=7.928 \times 10^{15}>$
Seven point nine two eight times ten to the power of fifteen

$$
0.0000000000568=\mathbf{5 . 6 8} \times \mathbf{1 0}^{-\mathbf{1 1}}
$$

Five point six eight times ten to the power of minus eleven

Activity 2: Read these numbers to your partner.

1. $829,024,191$
2. $2.432 \times 10^{-9}$
3. $324,556,742,609$

Listen to your partner and write the number below:
1.
2.

3.

