NUMBER SLIDE

## Using the number slide assists students to convert m to km

Many students become confused as to how metric units are converted. The Number Slide app helps students visualize the way numbers' digits "slide" to their new values.

Complete the worksheet WS 1 while working thorough this lesson plan:

1 km = 1000 m

What does this mean:

- If possible give students an idea of what a 1 km is like in length, and compare it to 1 m (e.g., go to a sports field with a 400m running track - 1km is 2 and a half times this length. Walk the track, and count clicks on a trundle wheel.) Compare to 1 m which is about 1 large adult step.
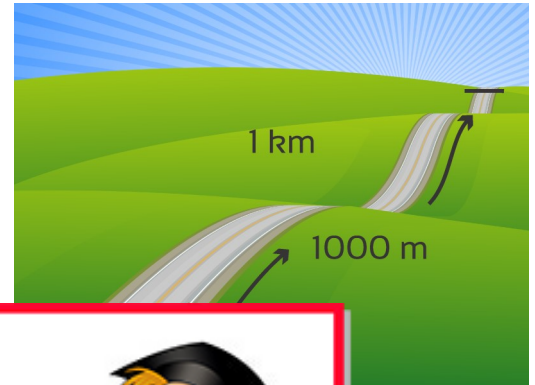
- **Say:** 1 km = 1000 m

- To hel... km, a... **"milli"...**

- **Ask:** I...

- What ...

- What ... 1000) ...

Introduce t...

- **Enter:** ...

- **Say:** ...

- **Ask:** ... the tho...

- **Click: X 1000** in the Toolbox and the 7 will slide to the thousands place and three zeros will appear.

- Have students write their answers in the worksheet

- **Ask:** To convert 4.5 km to m what will I need to do? (enter 4.5 x 1000)

- **Enter: 4.5 > OK**

- **Ask:** Next step? (multiply 4.5 by 1000) **Click: x > 1000**

- **Ask:** Which way did the 4.5 move? (It moved three places to the left.)

- Why were there only two zeros added? (because only 2 were needed to "hold the place")

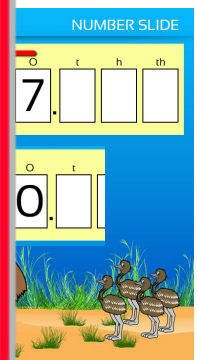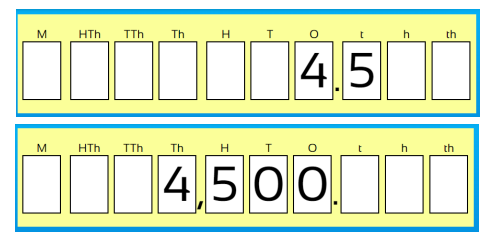- Did the number get larger or smaller? (larger)

- Why does the number get larger when we convert from km to m? (because there are 1000 m in a km, so the number of km is multiplied by 1000

- **Have the students say and write:** 1 km = 1000 m

- **Work through the rest of the examples** on the first section of the worksheet with the students using the Number Slide Gadget.

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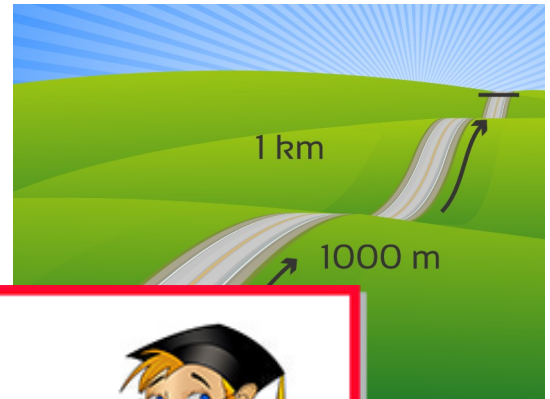
This really is the same process but backwards. Dividing by a thousand is required to convert from m to km.

Complete the second section of worksheet WS 1 while working thorough this lesson plan:

1000 m is the same as 1 km

What does this mean:

- **Say:** Nothing has changed: the 1000 m = 1 km, except now if we convert from 1000 m we have to divide by one thousand

- **Ask:** I... (2 km)

- What ...

- What ...

Introduce t...

- **Enter:** ...

- **Say:** ...

- **Ask:** ... place)

- **Click:** ... disapp... zeros will

- **Ask:** ... needed ...

- Have students write their answers in the worksheet.

- **Enter:** 120 > OK

- **Ask:** To show 120 m as km what do I have to do? (divide 120 by 1000)

- **Click:** ÷ > 1000

- **Ask:** Which way did the 120 move? (It moved three places to the right.)

- What happened to the zero on the end? (it is a trailing zero so it is not needed)

- Why was there a zero added at the front? (because a zero is needed when writing a decimal, to show there are no ones)

- Did the number get larger or smaller? (smaller)

- Why does the number get smaller when we convert from m to km? (because there are 1000 m in a km, so the number of m is divided by 1000)

- **Have the students say and write:** 1000 m = 1 km

- **Work through the rest of the examples** on the second section of the worksheet WS 1 with the students using the Number Slide Gadget.
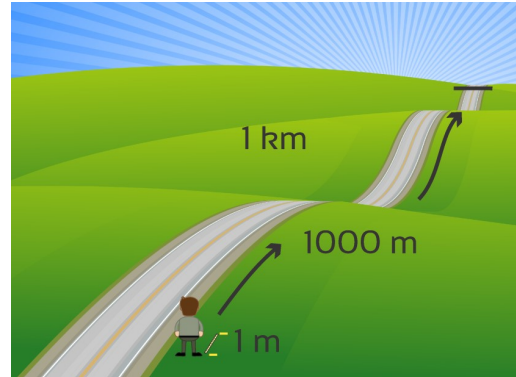
ANSWERS

Converting km to m:

1)	**1 km**	=	_1,000_ m
2)	**7 km**	=	_7,000_ m
3)	**4.5 km**	=	_4,500_ m
4)	**6.82 km**	=	_6,820_ m
5)	**25.0**		m
6)	**0.5**		m

One m is roughly one large step.

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

1 m

Converting

1)	**1,00**		
2)	**5,000 m**	=	_5_ km
3)	**120 m**	=	_0.12_ km
4)	**700 m**	=	_0.7_ km
5)	**60 m**	=	_0.06_ km
6)	**3 m**	=	_0.003_ km
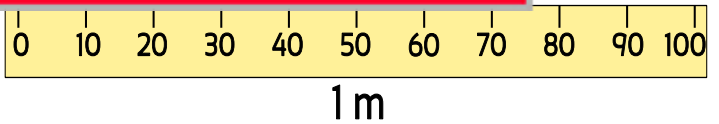
7)	**7,100 m**	=	_7.1_ km
8)	**50,000 m**	=	_50_ km
9)	**250 m**	=	_0.25_ km