

## 2040 - The Maths of Carbon



Name \_\_\_\_\_

Class \_\_\_\_\_

### Student Worksheet

**Thought-starters: What's the deal with Carbon Dioxide? Surely an invisible, tasteless and smell-less gas can't really be such a drama? Can it?**

#### The Issue of Atmospheric Carbon

Watch this clip:



[2040 - Exploring the Themes](#) Password: 2040\_EDU

**While** you're watching, complete the table below.

<b>SEE</b> – What did you see as you watched this video?	<b>HEAR</b> – What did you hear the narrator talk about in the video?	<b>WONDER</b> – What questions arose as you watched?

**After** watching, complete Column A. Then wait for further instructions.

- **Column A** - There were many ideas presented in this clip, by the narrator, about the problem we face today regarding the Earth's atmosphere. What THREE ideas did you find most interesting?
- **Column B** - Share your thoughts in column A with a partner and note down anything new.
- **Column C** - What were some ideas shared in the class discussion that you hadn't considered before?

Column A	Column B	Column C
	1.	
	2.	
	3.	

### The Air That I Breathe...

In the table below, list each of the main gases in our atmosphere as mentioned by your teacher.

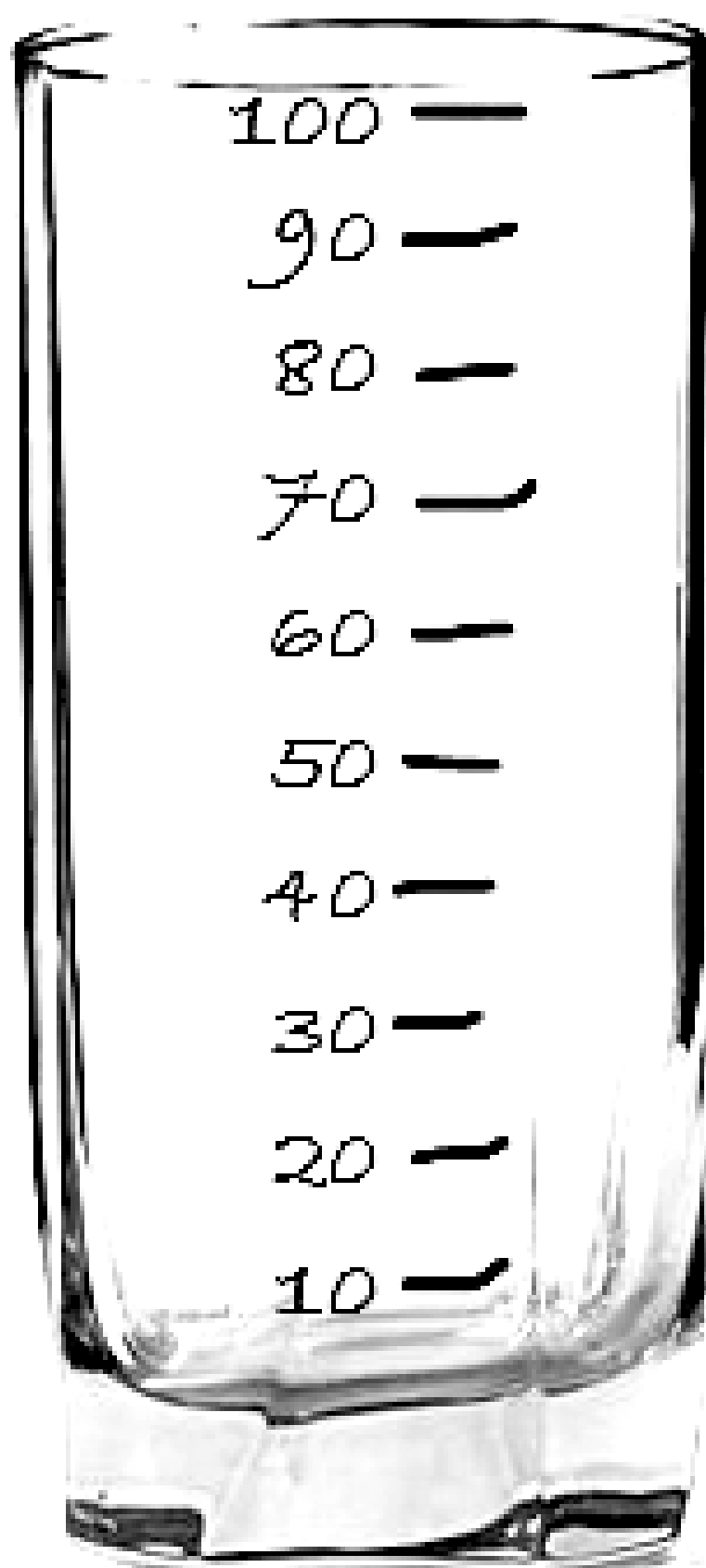
After chatting with your class, then list the amount of that gas as a proportion of the total atmosphere - first, as 'parts per million' (PPM) and then as a percentage:

(Remember, to calculate a percentage (%) from 'Parts per Million' (PPM):  $\text{PPM} / 1\,000\,000 \times 100 = \text{_____ \%}$  )

Name of Gas	Amount in Atmosphere - as 'Parts per Million' (PPM)	Amount in Atmosphere - as a Percentage (%)
		%
		%
		%
		%

%

**Optional** - If the Earth's Atmosphere was a glass of frozen slushie drink, and each gas was a separate coloured 'flavour' draw and label the components in the glass! *(Remember, in the real atmosphere, all the gases are mixed in together - not in layers!)*



## Reflection

After completing the graphing activity, complete this activity.

<b>THINK</b> – What are some thoughts you have about the activities and data in this lesson?	<b>FEEL</b> – How do you feel about what you have learned in this lesson?	<b>WONDER</b> – After this lesson, what are you still wondering about?

Write three important ideas that you will take away from this lesson:

1.

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2.

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3.

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