

Miss MOLECULE & friends

Episode 1 –
'Lithium'

Created in collaboration with



**STUDIO
WALLOP**



GeoScience



Miss MOLECULE
& friends (episode 1)

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Education Grant Scheme

IET The Institution of
Engineering and Technology

Institution of
**MECHANICAL
ENGINEERS**



Cornish Lithium

Hello! I'm Miss Molecule

In this lesson you will learn:

- What Lithium is, where it comes from, and its uses
- What sustainable mineral extraction is, and its importance in helping combat climate change
- How Lithium is being extracted in the UK by companies such as Cornish Lithium



How many
minerals/metals can
you name?

The Periodic Table of the Elements, in Pictures

Periods	Alkali Metals Group 1																		Alkali Earth Metals Group 2																		Transition Metals																		Boron Group 13																		Carbon Group 14																		Nitrogen Group 15																		Oxygen Group 16																		Halogens Group 17																		Noble Gases Group 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	<div><div>Atomic Symbol</div><div>Atomic Number</div><div>Name</div><div>How it is (or was) used or where it occurs in nature</div></div>																		<div><div>Symbols</div><div>Widgets</div></div>																		<div><div>Solid</div><div>Liquid</div><div>Gas</div><div>Human Body</div><div>Earth's Crust</div><div>Magnetic</div><div>Noble Metals</div><div>Radioactive</div><div>Only Traces Found in Nature</div><div>Never Found in Nature</div></div>																		<div><div>The color of the symbol is the color of the element in its most common pure form.</div><div>Examples</div><div>metallic solid</div><div>red liquid</div><div>colorless gas</div></div>																		<div><div>Metals</div><div>Nonmetals</div><div>Transition Metals</div><div>Alkali Earth Metals</div><div>Alkali Metals</div><div>Noble Gases</div><div>Halogens</div><div>Metals</div><div>Nonmetals</div><div>Superheavy Elements</div><div>Rare Earth Metals</div><div>Actinide 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But, what is the difference between a mineral & a metal?

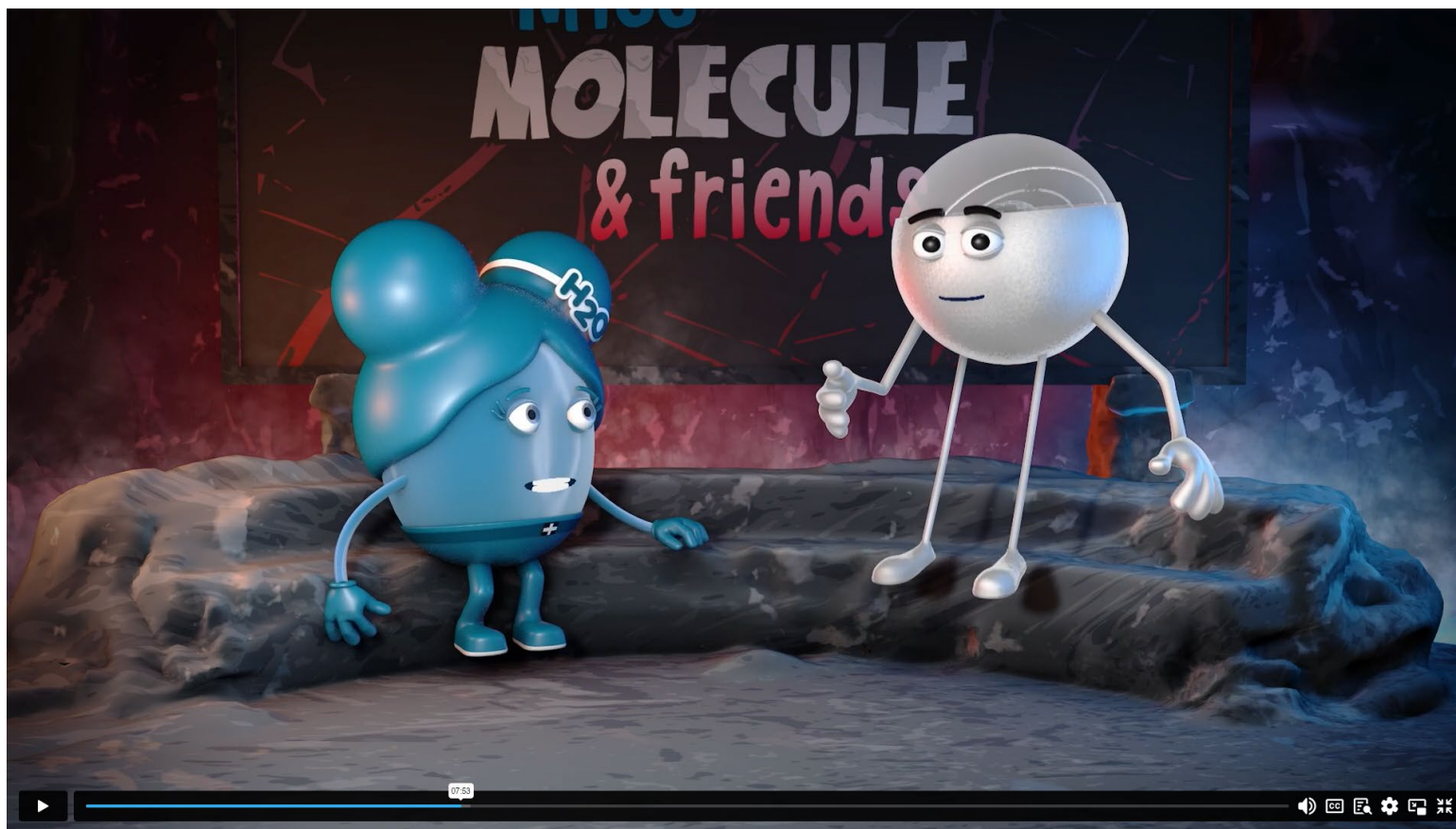
Minerals

- Solid at room temperature
- Naturally occurring
- Found in the Earth's crust
- Low melting & boiling points

Metals

- Good conductor of electricity
- Most are extracted from ores (minerals that contain metal compounds)
- High boiling & melting points

Watch the film to learn about Lithium!

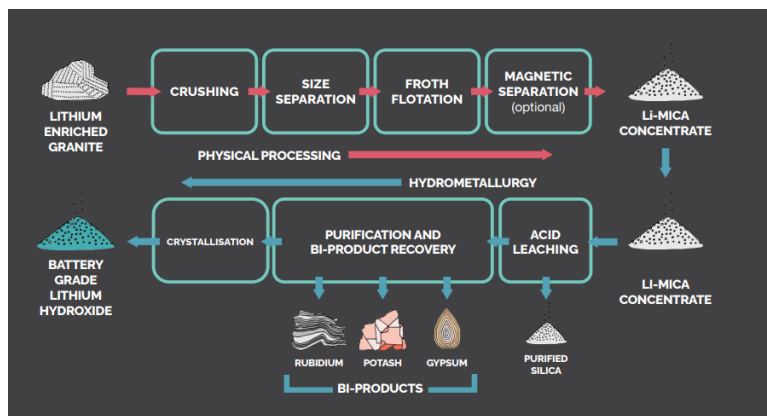


www.missmolecule.co.uk/watch

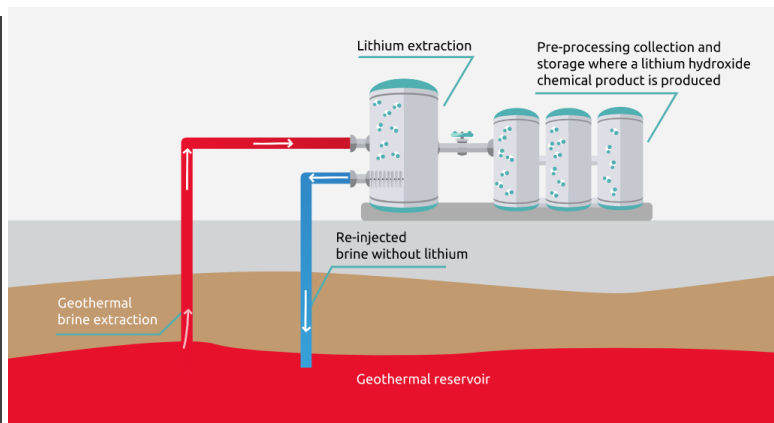
Miss
MOLECULE
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Experiment!

Try these different separation techniques to see which one works best!



Magnetic

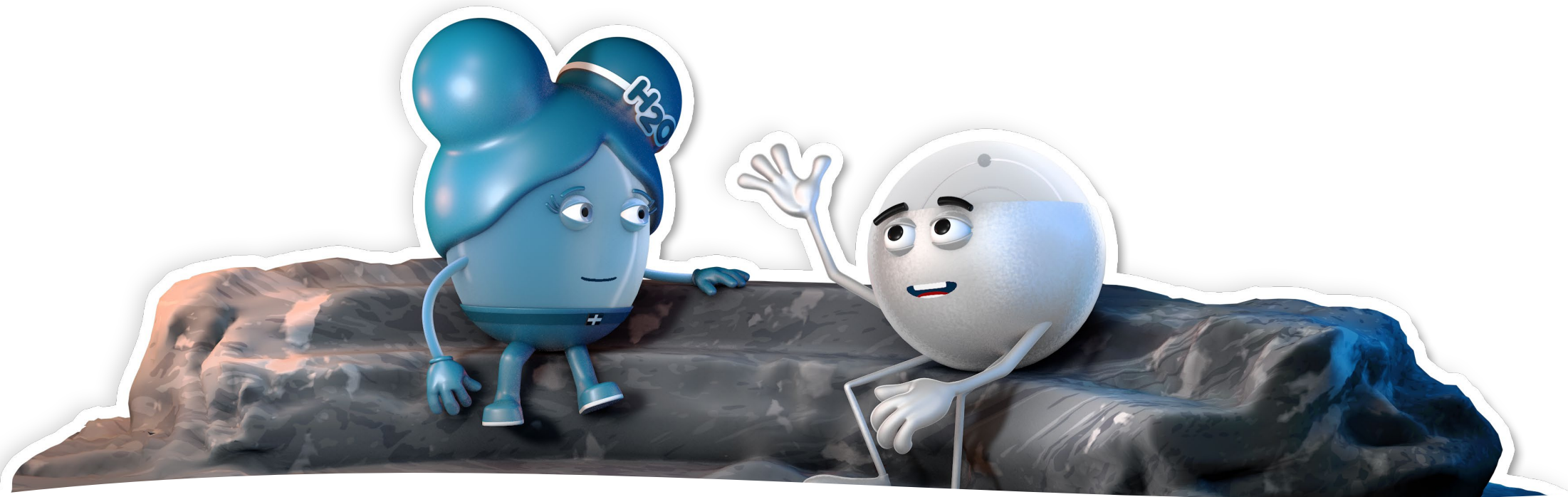


Sieving



Evaporating

Images sources, Cornish Lithium & NASA



Pop Quiz!

- What are the two methods of extracting Lithium in Cornwall?
- What job does Lucy do?
- What are some differences between a mineral and a metal?
- What job does Zoe do?
- What does 'carbon neutral' mean and what year does the UK hope to achieve it?



Thanks for taking part!

Watch more episodes of Miss Molecule & Friends online

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