Brines on Mars
Understanding Saturated Salt Solutions
Objectives

By the end of this lesson you will be able to:

• Understand how crystallisation works.
• Understanding saturation points.
• Understand how do saturated salt solutions affect habitability.
What is solubility and a saturation point?

• Solubility = the maximum amount of a solute that can dissolve in a solvent at a specified temperature and pressure.

• It is measured in terms of the maximum amount of solute dissolved in a solvent at equilibrium.

• The resulting solution is called a saturated solution.
Laguna Negra
Argentina

- In the Argentinian Andes.
- Can be used as an analogue to past Mars due to high concentrations of CaCl$_2$ salts.
How habitable do you think the Laguna Negra is?
Crystallisation
What does crystallisation look like?

Click button below to link to video:
What happened? Why?

Discuss in groups
Recap

Now we can...

1. Understand how crystallisation works.
2. Explain how we get saturated and super-saturated solutions.
3. Reason how saturated salt solutions affect habitability.