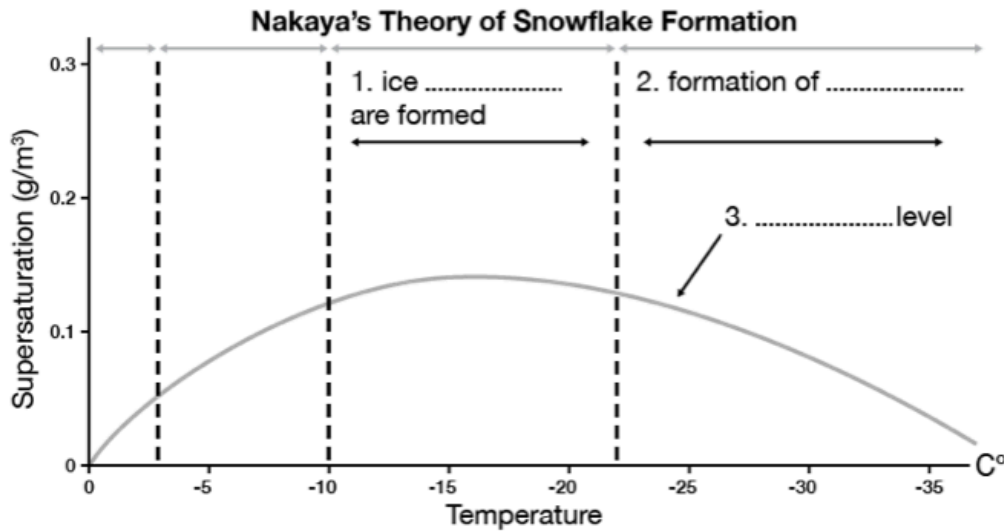


Questions 1 - 3

The chart below shows Nakaya's findings on the relationship between snowflake formation and temperature.

Label the diagram by using **NO MORE THAN TWO WORDS** from the Reading Passage to fill each numbered space.

Write your answers in boxes 1 -3 on your answer sheet.



Reading Passage:

Fake Flakes

A sprinkling of labs around the world are trying to grow snow crystals.

There is something about snowflakes that scientists cannot leave alone. Rene Descartes once wrote, "So perfectly formed in hexagons, and of which the six sides were so straight, and the six angles so equal, that it is impossible for men to make anything so exact." But in this as in so many things, Descartes was wrong. For John Hallet of the Desert Research Institute in, appropriately, Nevada, is really rather good at making snowflakes.

Dr Hallet is one of the small band of latter-day snowflake researchers. He makes his flakes in a chamber that mimics the swirling balance between wind and gravity in which natural snowflakes form. He then compares flakes grown in these controlled conditions with natural flakes, and is able to infer what was going on in the places where those natural flakes formed.

The details are surprisingly complicated. Experiments done in the 1930s by Ukichiro Nakaya, a Japanese scientist, showed that whether snow forms in the flat and flowery shapes that grace Christmas cards, or as hexagonal prisms that look like cross section through pencils, depends on temperature and water saturation. The six-petalled ice flowers grow in air warmer than -3°C and -10°C , prisms form. Between -10°C and -22°C , it is ice flowers again, and below that, prisms once more.

Dr Hallett is building on Nakaya's work to look at how such things as humidity affect the progress. It may sound esoteric, but he hopes that understanding the conditions needed for particular warnings of air-pockets that pilots should avoid in order to prevent their planes icing up.

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The banner features three gold circular icons on a dark blue background. The first icon contains the number '#1' and the text 'CAMPUS BUILDINGS GLOBALLY'. The second icon contains the number '#2' and the text 'CAMPUS ENVIRONMENT GLOBALLY'. The third icon contains the word 'LEADERS' and the text 'IN TEACHING, TRAINING AND DEVELOPMENT PROJECTS'. To the right of these icons is the University of Queensland Australia logo, which includes a crest and the text 'THE UNIVERSITY OF QUEENSLAND AUSTRALIA'. Below the logo is the slogan 'Create change'. On the far right, there is a photograph of a modern university building with large glass windows. At the bottom left, the text '2016 I-graduate English Language Barometer Rankings' is visible.

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