

Weather & Climate

Our **iCAN** mind map

THE BIG IDEA

Differences in weather and climate affect localities and lifestyles. Weather is the mix of events that happen each day in our atmosphere including temperature, rainfall and humidity. Climate is the average weather pattern in a place over many years. In this unit we'll be finding out about how weather and climate around the world impact on our lives.

Geography

- As geographers at iCAN we will be learning:
- About weather and climate in different parts of the world
 - How human activities in different regions are affected by weather and climate
 - How to produce our own weather forecasts
 - How clouds are formed
 - About the water cycle
 - About some extreme weather records

Learning Goals

- 3.1 Know that the study of geography in this unit is concerned with places and physical processes in the world around us, including the atmosphere
- 3.2 Know about the main climate types and physical processes of weather
- 3.3 Know about similarities and differences in weather patterns between particular localities
- 3.4 Know how the weather and climate influences the nature of human activities
- 3.6 Identify and know about the weather patterns of Cambodia
- 3.8 Identify and know about the weather patterns of our home country
- 3.9 Know about the weather and climatic conditions in our home country and how they affect the environment and the lives of people living there
- 3.10 Know about the weather and climatic conditions in Cambodia and how they affect the environment and the lives of people living here
- 3.12 Be able to enquire into climatic factors and their effects on people's lives
- 3.13 Be able to use atlases, satellite images, the Internet, radio and television, reference materials and fieldwork to gather information about the weather
- 3.15 Be able to identify weather patterns and to use our knowledge and understanding to explain them
- 3.16 Be able to use appropriate geographical vocabulary to describe and interpret the weather
- 3.17 Be able to use instruments to record temperature, wind speed and direction, rainfall and humidity
- 3.18 Be able to use appropriate techniques to gather information about weather patterns and microclimates
- 3.19 Be able to make local plans and world maps in a variety of scales using symbols and keys, some of which we have devised ourselves
- 3.20 Be able to use and interpret globes and world maps in a variety of scales
- 3.22 Be able to explain how climatic processes lead to similarities and differences between places
- 3.24 Be able to communicate our knowledge and understanding of weather through presentations and reports
- 3.25 Understand how localities are affected by meteorological processes
- 3.26 Understand how and why some people are concerned about climate change and the steps being taken to address the issues
- 3.27 Understand how the weather of Cambodia affects the everyday lives of the people who live here

Science

- As scientists at iCAN we will be:
- Conducting experiments to simulate weather types
 - Making predictions, observations, and drawing conclusions
 - Finding out about ways we can measure and record weather

Learning Goals

- 3.2 Be able to conduct scientific investigations
 - Posing scientific questions
 - Choosing an appropriate way to investigate a scientific issue
 - Using our scientific knowledge and understanding to predict the outcome
 - Relating the outcome to our original prediction
 - Making systematic and accurate measurements from our observations
 - Drawing conclusions based on the evidence
 - Explaining and justifying our predictions, investigations, findings and conclusions
 - Recording and communicating our findings accurately using the most appropriate medium and the appropriate scientific vocabulary and conventions
 - Repeating investigations, observations and measurements to check their accuracy and validity
 - Identifying patterns in the results
 - Using scientific language to explain any differences found in the results of investigations
 - Suggesting ways in which our investigations and working methods could be improved
 - Relating our own investigations to wider scientific ideas
- 3.3 Be able to gather evidence from a variety of sources
- 3.4 Be able to discriminate between evidence and opinion
- 3.6 Understand some of the effects of what they learn on people's lives
- 3.34 Know about the principles of condensation and evaporation
- 3.36 Know that matter is made up of particles
- 3.49 Be able to identify the effects of physical forces
- 3.50 Be able to measure forces
- 3.51 Be able to identify the direction of forces

Technology

- As designers at iCAN we will be learning:
- To design and build our own weather station instruments
 - About the different types of modern technology used to measure weather

Learning Goals

- 3.4 Be able to respond to identified needs, wants and opportunities with informed designs and products
- 3.5 Be able to gather and use information to suggest solutions to problems
- 3.6 Be able to devise and use step-by-step plans
- 3.9 Be able to work with a variety of tools and materials with some accuracy
- 3.10 Be able to test and evaluate our own work and improve on it
- 3.13 Understand the need for accurate design and working
- 3.14 Understand the ways in which technology can be used to meet needs, wants and opportunities
- 3.15 Understand that different techniques, tools and materials are needed for different tasks
- 3.16 Understand that the quality of a product depends on how well it is made and how well it meets its intended purpose

International

- As international citizens at iCAN we will be learning:
- About climate and environmental problems in our home countries and Cambodia
 - What simple things we can do to help improve our environment

Learning Goals

- 3.1 Know how the key features related to the lives of people in our home country and, where appropriate, our parents' home countries are influenced by the weather and climate
- 3.2 Know how the key features related to the lives of people in Cambodia and/or, where appropriate, other countries in which we have lived are influenced by the weather and climate
- 3.4 Know about the effect of similarities and differences in climate on the lives of people in different countries
- 3.6 Be able to identify ways in which people work together for mutual benefit through international energy projects and aid agencies

ICT

- As digital learners at iCAN we will be exploring:
- Aspects of computing and ICT

Learning Goals

- 3.1 Know that the study of ICT is concerned with applying technology to gather, use and exchange information
- 3.3 Be able to frame questions appropriately when gathering and interrogating information
- 3.4 Be able to interpret our findings
- 3.5 Be able to identify whether our findings are valid
- 3.6 Be able to manipulate and combine different forms of information from different sources
- 3.7 Be able to use ICT to present information in a variety of forms
- 3.8 Be able to exchange information and ideas in a number of different ways
- 3.13 Understand the importance of considering audience and purpose when presenting information