

Weather Forecasters



Use the vantage point of **Coxhill Mount** to record current **weather conditions** and to try to forecast the weather for the following day. This activity suits repeated visits in different seasons.

Suitable for KS2,
adaptable to KS1



Curriculum areas covered:



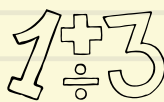
Geography

Maps
Physical characteristics
Compass bearings
Weather, Seasons



English

Evaluation
discussions
Presentations



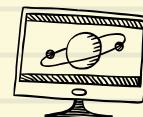
Mathematics

Measures
Tables and data
ordering
Averages



Science

Scientific methods
and processes
States of matter



Design & Technology

Exploring
YouTube
technology



Physical Education

Outdoor
exercise

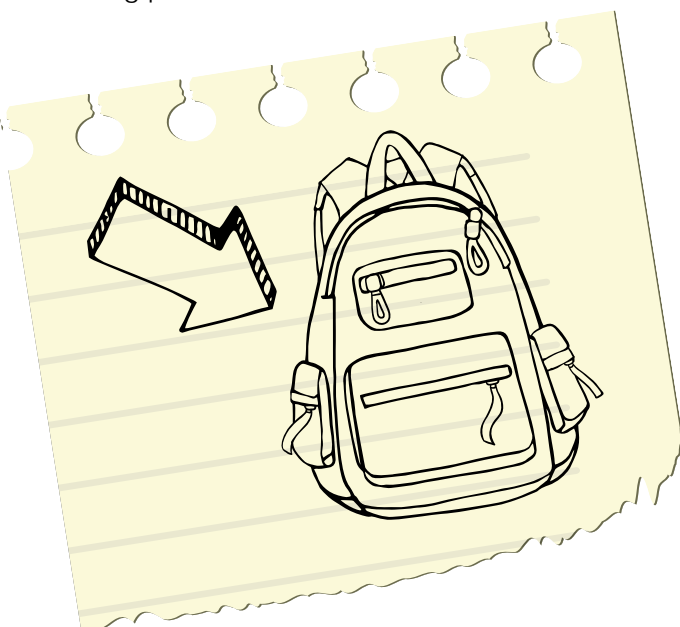


Before your visit:

- With access to the Internet, research weather forecasters using YouTube. Observe their presentation techniques, critiquing who is most effective.

Where to go:

- Collect the **PUPILS' GREY and RED** and **TEACHER'S BLACK RESOURCE RUCKSACKS**. Use the old billiards room as a starting point for the activities.



- **Wind speed** – use anemometer, standing in the open.
- **Wind direction** – use a compass as a direction finder, and a windsock to see which way the wind is blowing from.
- **Air pressure** – use a barometer placed to measure humidity (amount of water vapour in the air). If pressure increases over a time period it indicates high pressure is building, and drier weather. If pressure decreases over a time period, it indicates more moist weather coming in.
- **Cloud cover** – use the **Cloud cover symbols resource sheet** to give an approximate coverage, based on proportions of 'eighths' of the sky (measured in 'oktas'). Use the following vocabulary as the cloud cover increases: No clouds, isolated clouds, scattered clouds, broken clouds, overcast, foggy.
- **Cloud types** – use the **Cloud types resource sheet** to record the type of coverage.
- Take 4 readings for each weather observation, at 15 minute intervals, recording data as tables. Calculate average readings from the data.
- In pairs, pupils consider the current weather readings and attempt to predict tomorrow's weather based on the information.
- Groups create animated presentations, introducing the location and season, and leading on to predicting forecasts for tomorrow, recording them on video.

During the visit:

- Using the **Kearsney OS map resource sheet** orientate the map and take a compass bearing to navigate a route to the high point on Coxhill Mount, where the group sets up a weather station. En route observe how the park looks based on the season.
- On arrival, looking at both the map and the long views, discuss what physical characteristics could affect the weather locally to this area?
- Collect the following data to record current weather conditions:
 - **Air temperature** – use a thermometer placed in the shade. This is the actual air temperature used for weather forecasts.
 - **Temperature in the sun** – use a thermometer placed in direct sunlight to see how different the temperature is.



After the visit:

- The class checks the weather next day, comparing the actual conditions with their predictions from the previous day.
- Watching the videos, pupils comment on what qualities combine to make an engaging presentation and compile tips on improvement.

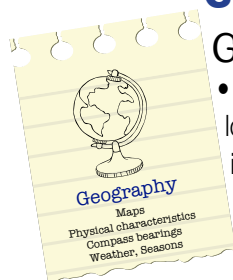


Resources during visit:

- Use on-site **PUPILS' GREY and RED RESOURCE RUCKSACKS** for thermometers, compasses, windsocks, clipboards, and waterproof mats and ponchos in case of rain.
- You will also need the **TEACHER'S BLACK RESOURCE RUCKSACK** for same items, plus barometer, anemometer, and laminated copies of the **Kearsney OS map resource sheet**, **Cloud cover symbols resource sheet** and **Cloud types resource sheet**.
- **School to supply:** writing materials (pens / pencils and paper), video cameras.
A4 printouts of the **Kearsney OS map resource sheet**.
A4 printouts of the **Cloud cover symbols resource sheet**.
A4 printouts of the **Cloud types resource sheet**.

Curriculum links:

Geography:



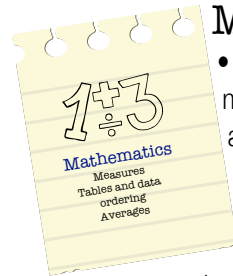
- Develop contextual knowledge of the location of globally significant places, including their defining physical and human characteristics.
- Are competent in the geographical skills needed to:
 - o Collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes.
 - o Interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photos and Geographical Information Systems (GIS).
 - o Communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.

English:



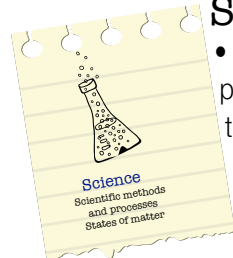
- Use discussion in order to learn: they should be able to elaborate and explain clearly their understanding and ideas.
- Are competent in the art of speaking and listening, making formal presentations, demonstrating to others and participating in debate.

Mathematics:



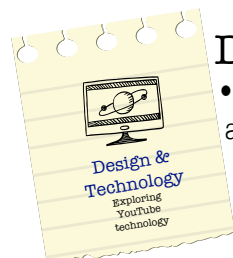
- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Science:



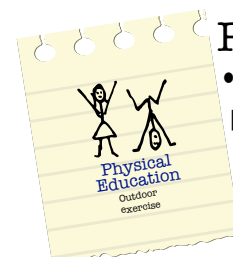
- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Design & Technology:



- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate in an increasingly technological world.

Physical Education:

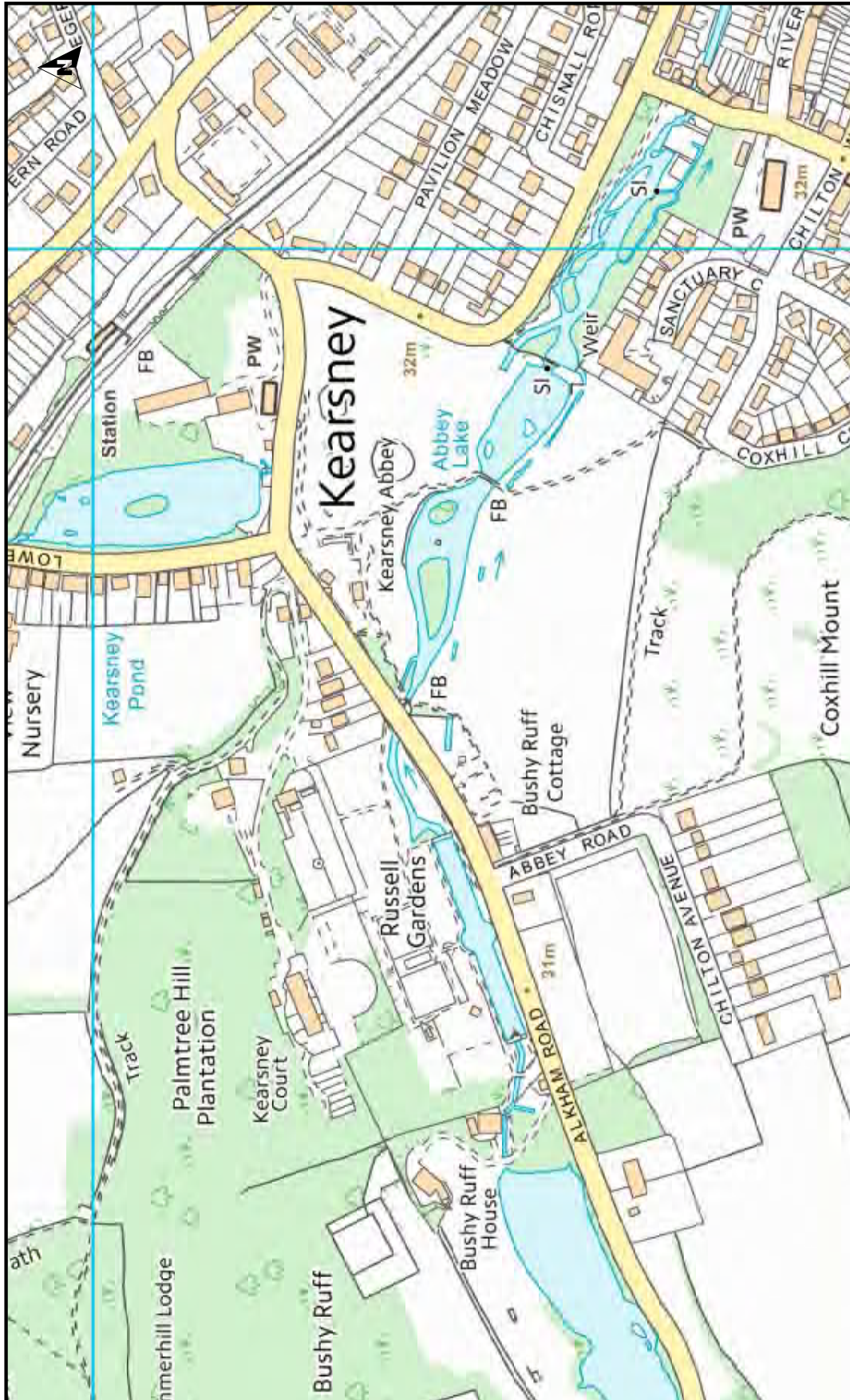


- Are physically active for sustained periods of time.
- Lead healthy, active lives.



OS MAP 1

Kearsney Abbey and Russell Gardens



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Dover District Council
Honeywood Close
White Cliffs Business Park
Whitfield
DOVER
CT16 3PJ

Kearsney Abbey & Russell Gardens

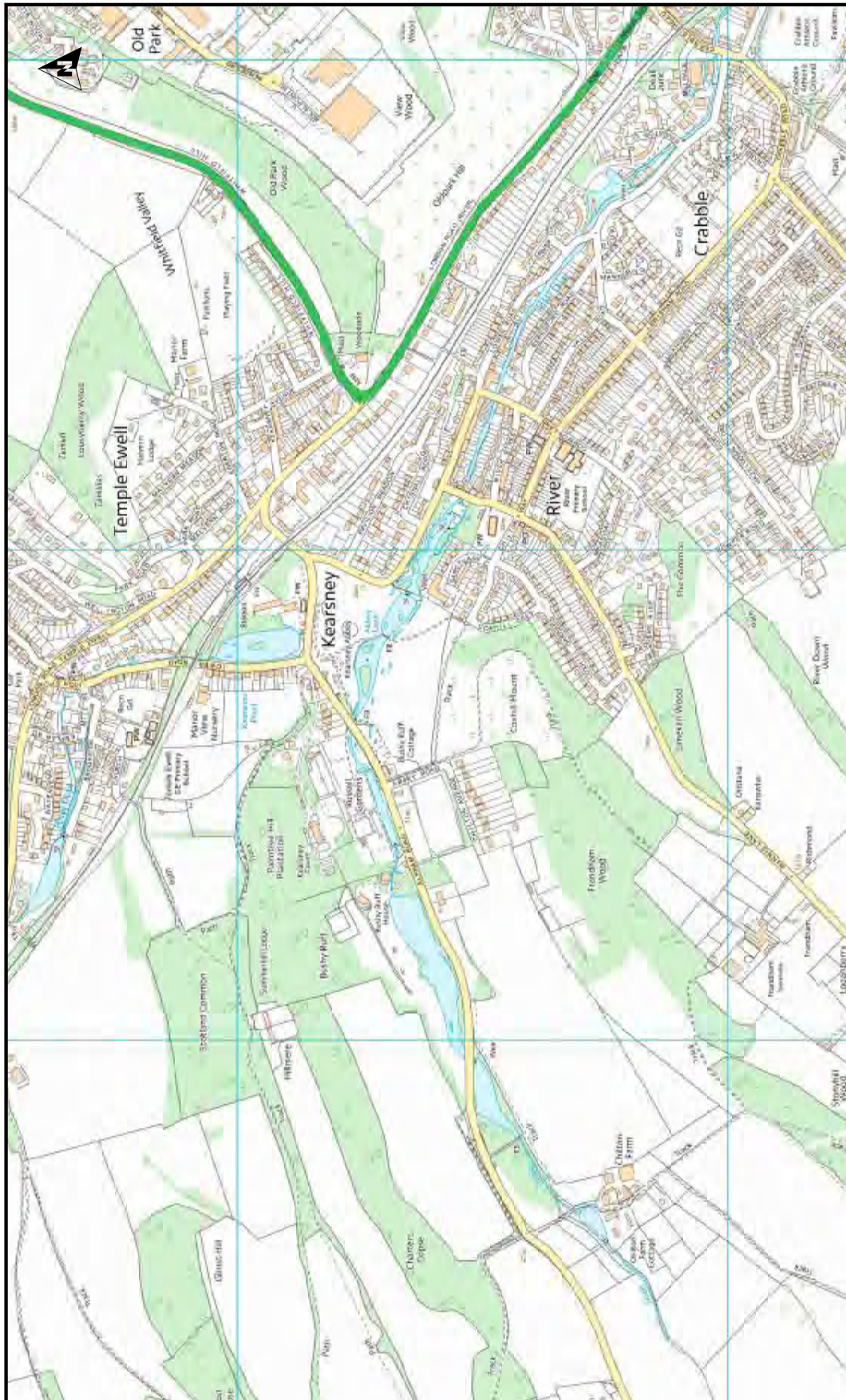
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OS MAP 2

Kearsney Abbey and Russell Gardens



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Dover District Council
Honeywood Close
White Cliffs Business Park
Whitfield
DOVER
CT16 3PJ

Kearsney Abbey & Russell Gardens

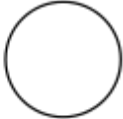
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Resource sheet Cloud Cover Symbols

Cloud Cover

Symbol	Scale in oktas (eighths)	
	0	Sky completely clear
	1	
	2	
	3	
	4	Sky half cloudy
	5	
	6	
	7	
	8	Sky completely cloudy
	(9)	Sky obstructed from view

https://commons.wikimedia.org/wiki/File%3ACloud_Cover_in_Oktas.svg

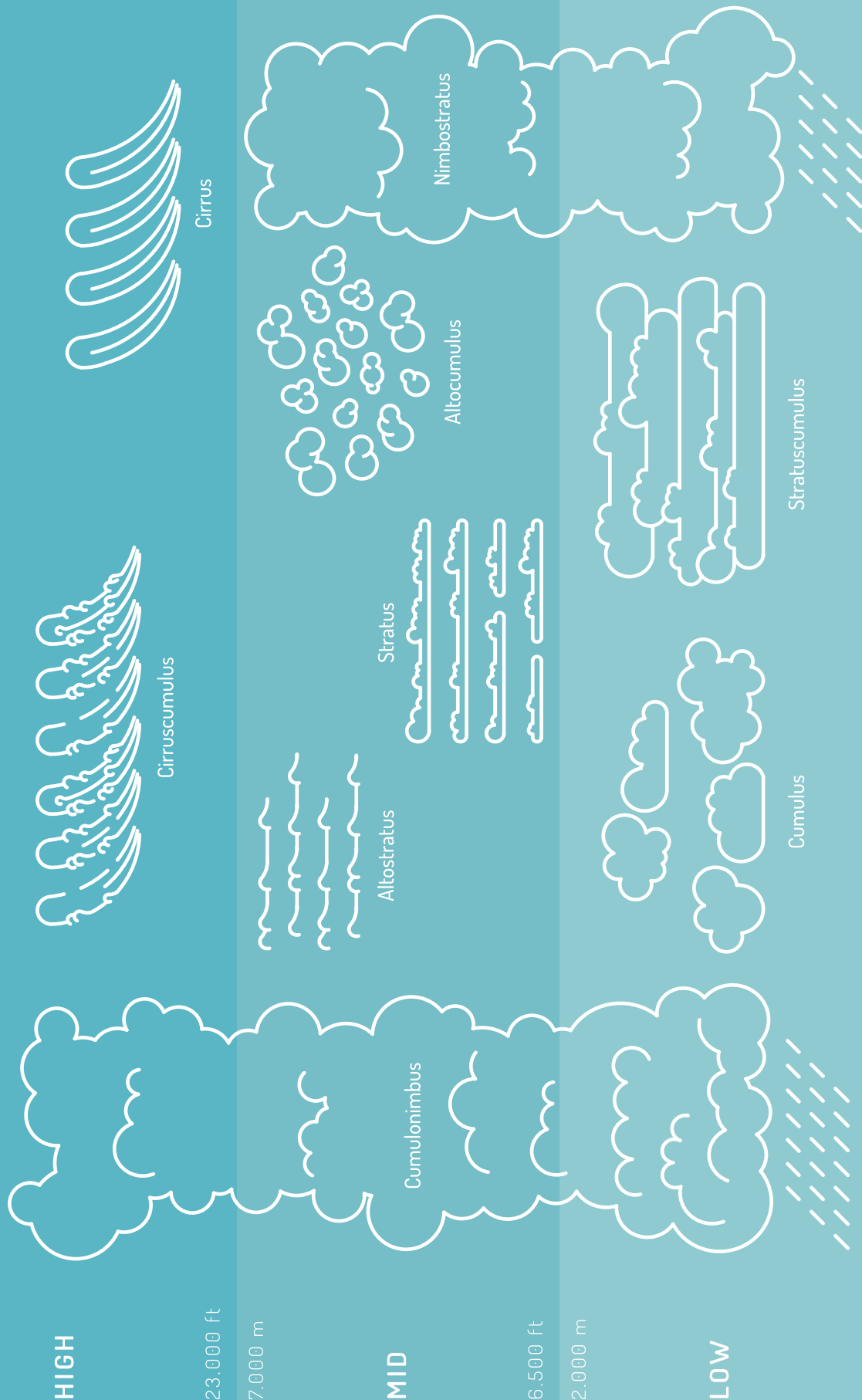
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Resource sheet

Cloud types

CLOUDS



Resource Sheet - Kearsney Parks Sketch Map

