



CREATIVE SESSION 4

# WIND CIRCULATION

## ABOUT THE WIND'S CIRCULATION

**Wind is made by temperature differences between two places. When somewhere gets hot, the air heats up and rises, leaving an area of 'low pressure' at the surface. Meanwhile, somewhere else with 'high pressure' is experiencing cold air sinking, so to maintain equilibrium wind blows from the place cold air is sinking (where there is too much air) to the place warm air is rising (where there is not enough air). This is why wind blows from 'high to low'.**

Winds at all scales work on this principle, from the localised sea breeze to global weather systems spanning entire oceans. To help us forecast these winds, synoptic charts show where the high and low pressure is, connecting places of equal pressure by 'isobars'. The closer the isobars, the stronger the winds will be. A simple way to visualise this is to think of the chart as a map of a mountain range; close lines indicate a steep slope, so if you set off from the highest point on a toboggan you'd go faster where the isobars are closer together and end up at the lowest part of the slope. The same applies to the wind on a synoptic chart.

The only difference with winds on a large scale is that they're deflected by the spinning of the earth, a process called the 'Coriolis Effect'. So instead of blowing directly from High to Low, wind travels along the isobars - clockwise around a high and anti-clockwise around a low (in the northern hemisphere). Because it is easy to forget which way round these go, the idea of this Creative Session is for you to colour the wind arrows, ideally using blue (representing cold air sinking) around the high and orange (representing warm air rising) around the low. This way you can visualise the movement of air with your pen, pencil or paintbrush and better embed the information on your memory.

**N.B** in the southern hemisphere the opposites apply, with winds blowing anti-clockwise around a high and clockwise around a low.

## INSTRUCTIONS

### Step 1

Colour in the letter H with blue and the L's with red

### Step 2

Colour in the arrows spiralling clockwise around the high in blue, and the arrows spiralling anti-clockwise around the lows in red

### Step 3

Colour in the title any colour you like

### Step 4

Colour in the land and/or sea - or neither. The choice is yours!



INSTRUCTIONS

1. COLOUR IN THE WIND
2. COLOUR IN THE WORDS
3. COLOUR IN THE LAND/SEA

IN THE NORTHERN HEMISPHERE  
WINDS BLOW CLOCKWISE  
AROUND A HIGH



STEP 2

STEP 2

STEP 3



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