

1) Investigating synoptic charts

Students require exercise 2 sheets 1-3, but should not be given the final sheet until after they have completed the exercise.

Sheet 1 – ask the students to draw the 1004, 1008, 1012 and 1016 isobars (noting that they have been recorded in shorthand, such that 1004 becomes 04 etc.) remembering that the wind tends to blow parallel to the isobars. Can they see what sort of a weather system it is, and where the fronts might be?

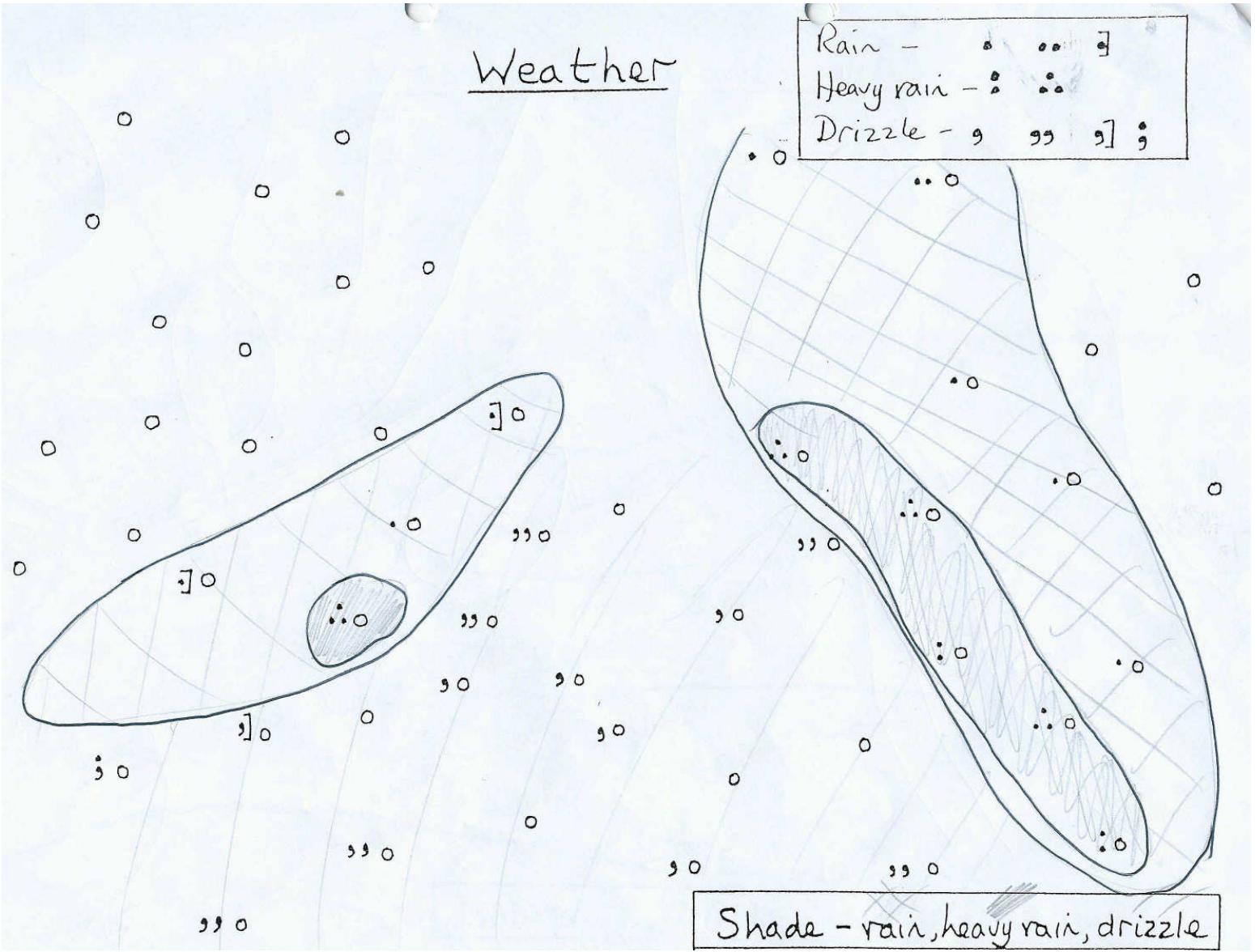
Sheet 2 – ask the students to draw the 2.5, 4.5, 6.5, 8.5 and 10.5 isotherms (lines of equal temperature), remembering that sometimes, if there isn't any data in a particular place, you have to make an educated guess about what the contour might look like. Is it more obvious now what the structure of the weather system is?

Sheet 3 – ask the students to shade the areas of rain, heavy rain and drizzle. Is it more obvious now what the structure of the weather system is?

Solutions (remembering that there might be slightly different ways of drawing the contours, particularly around the edges where data is sparse)

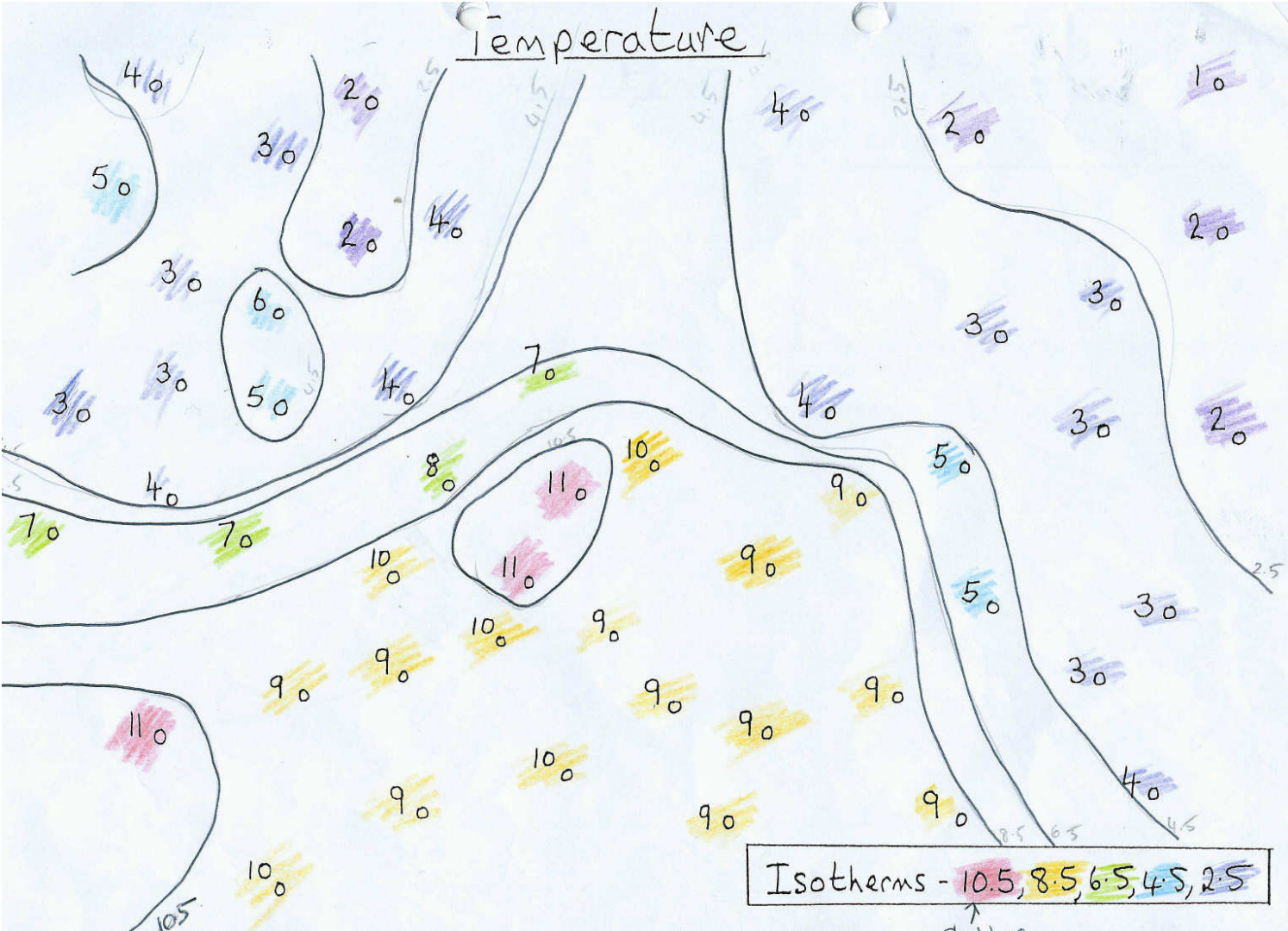
Weather

Rain - ☉ ☉ ☉ ☉
Heavy rain - ☉ ☉ ☉
Drizzle - ☉ ☉ ☉ ☉ ☉

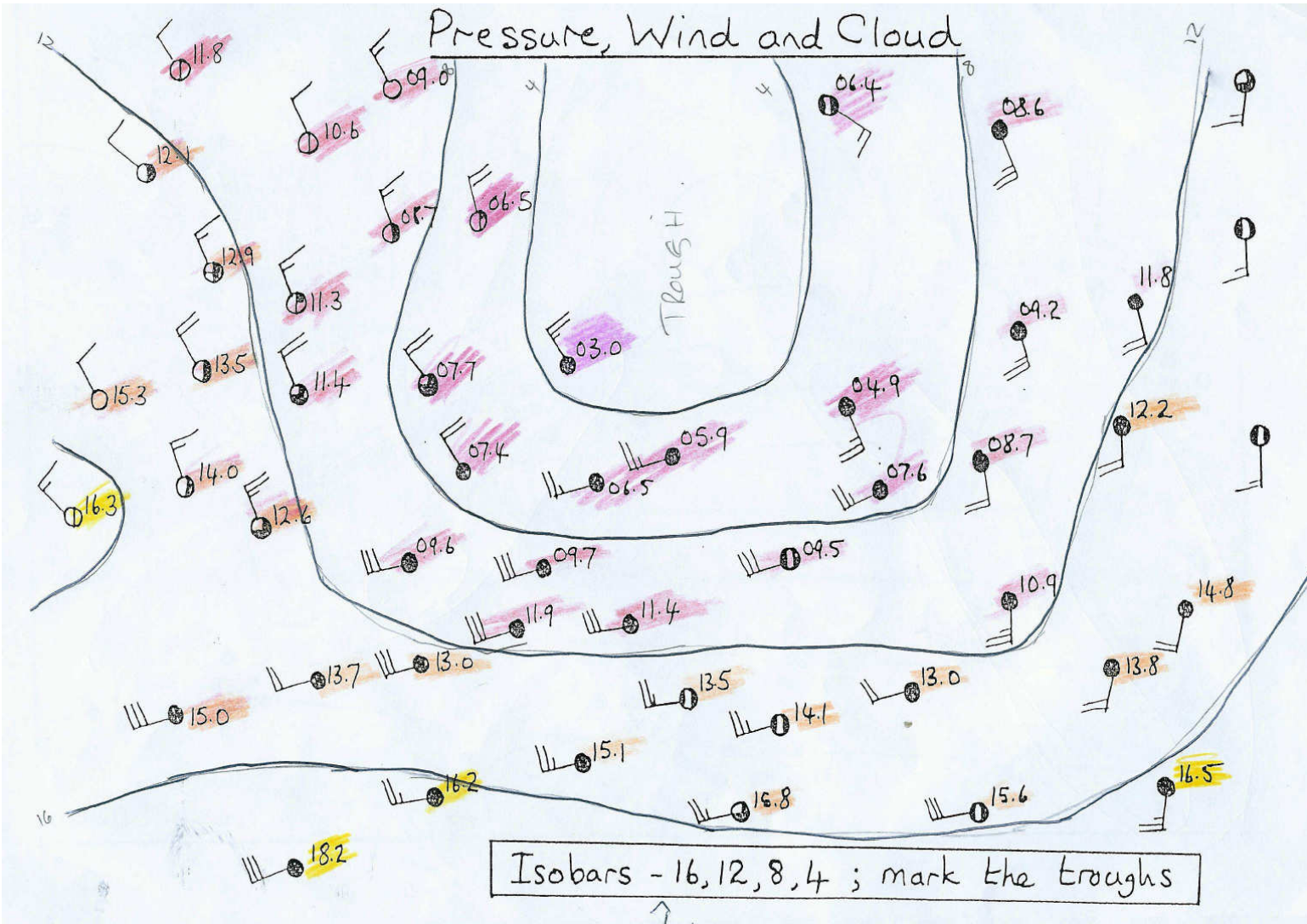


Shade - rain, heavy rain, drizzle

Temperature



Pressure, Wind and Cloud



Isobars - 16, 12, 8, 4 ; mark the troughs

