

CONDUCT YOUR OWN EPIDEMIOLOGICAL INVESTIGATION

SCENARIO:

A local doctor has noticed that a number of villagers have started to come to the surgery complaining of certain symptoms. The doctor suspects that the villagers are experiencing an allergic reaction to something. She has identified two possible sources that are causing these symptoms:

- **a.** A green space with a newly planted wildflower meadow behind the primary school. The wildflower meadow is currently in bloom.
- **b.** A farm in the village which is currently harvesting and processing a crop

The doctor has found a map of the village and has marked the direction the wind has been blowing during the time villagers experienced symptoms on the map.

There are two bus stops in the village. The bus stop by the meadow takes the children to their secondary school. The second bus stop by the farm is used for the bus that runs to and from the nearby town.

85 people live in the village.

25% of villagers have an existing respiratory condition, such as asthma or COPD, or are known to suffer with airborne allergies such as hay fever.

Using the map and villager cards, can you help the doctor locate the likely source that is causing these symptoms in the villagers?

TASKS:

- a. Using the information you have, identify the source that is causing the symptoms. You can mark where the villagers live, work or study on the map (this could be with coloured sticky dots or small post-it notes).
- b. Identify separate hotspots where villagers are likely being exposed.
- c. Identify patterns in the symptoms being experienced by the villagers. Are there symptoms that do not fit with the known symptoms of an allergy?
- **d.** Identify whether people with certain conditions are more at risk of experiencing symptoms.





