This activity offers students the opportunity to model the strategy used by John Snow to identify the water pump which caused the cholera epidemic to spread. Although this activity doesn't use real cases, Snow's original map is used to add a bit of historical authenticity.

Depending upon the level of the class, you might wish to further analyse the plotted data. You can explore why the disease spread outward from the water pump and examine factors resulting in the spread of infection. For example, have students suggest reasons why some grid squares had no incident of disease, while neighbouring squares do.

As you can see, this activity offers an authentic overlap of science skills with mathematical skills involving the plotting, analysis and communication of data. It also offers a valid experience for exploring STEM (Science Technology Engineering and Mathematics) connections.

Answers

1. Yes. The grid makes it easy to locate a specific part of the map.

2. D-4

3. They were clustered around the top right part of the map.

4. The area with the highest number of cases might be where the water-related disease is

   spread from.

5. E-2 and F-2. They both had six cases of the disease.

6. E-2 and F-2, since these were the locations where you had the greatest number of infections.

7. Yes. In grid box E-2, a "pump" is identified. This might be a water pump, from which the infection was passed onto those who drank water from this source.

WaterAid

Photo: WaterAid/Layton Thompson