



Pre Lab:

1. Who is Ötzi the Iceman?

Ötzi is a 5,300-year-old natural mummy. He was found in the Ötztal Alps in Italy in 1991.

2. What does the word preserve mean?

Preserve means to maintain in the original state.

3. What is Pollen?

Pollen is a fine powdery substance produced by seed bearing plants. Pollen is responsible for the production of male gametes. Pollen structure varies in size and shape depending on the plant species.



Post Lab:

1. How can the identification of pollen be used to determine the location of an individual?

Plants grow in various geographic locations and pollinate at different times. Pollen can be used to identify plants and therefore also to pinpoint location and time of year.

2. Based on the pollen identification data you collected from slides 1, 2 and 3, what pollen was found in Ötzi's gut? Approximately, where did he travel?

Slides 1 and 3 contained primarily pine and spruce pollen, and slide 2 contained mixed deciduous trees. This indicates that he was both at high altitudes (gymnosperms) and at lower, warmer altitudes (deciduous).

3. In this case, why was the location of pollen throughout the small and large intestine important?

The intestinal location provides the timing and sequence of his meals and movements.

4. Hophornbeam pollen was identified in Ötzi's gut. This tree only flowers for a very short period of time in spring. According to the pollen evidence, when did Ötzi die?

The presence of hophornbeam pollen indicates that Ötzi must have died in spring.