

Microplastic sampling (advanced)



Write out your sampling strategy:

Steps for sampling microplastics

1. Decide where you want to sample from your Arctic region. Record a description of the sample in your data table.
2. Extract ice sample from the tray using a spoon, crush it, and place it into a boiling tube.
3. Using the clamp to hold the boiling tube, carefully melt the ice sample using the Bunsen burner or hair dryer.
4. Label a piece of filter paper with the sample number, weigh it on the scale. Then fold it into a funnel. Consider why we must weigh the filter paper.
5. Hold the funnel over a beaker and pour the melted sample through the filter paper.
6. After the sample has been filtered through, weigh the filter paper with the microplastics. Record the mass in your data table.
7. Calculate the mass of the microplastics in the sample.
8. Repeat the steps with each of your samples.
9. Then use the mass of the microplastics you found in your samples to help you estimate the quantity of microplastics in your Arctic region. Remember you sampled only a small part of your region, so you'll have to do some calculations to estimate the amount of microplastics in the region.

Quantity of microplastics in sample

Sample number	Description	Mass of filter paper (g)	Mass of filter paper + microplastics (g)	Mass of microplastics (g)
1				
2				
3				
4				

Quantity of microplastics in the Arctic region:

Show your calculations. Then check with your teacher.
