## Dear Young Chemist,

Allow me to introduce myself. I am a well-funded food charity that distributes SUBSTANCES\* such as sugar and water to needy parties around the world. My organization recently received two very generous donations of sugar and water. Unfortunately we discovered that both donations are MIXTURES\*\*.

I am soliciting your skills as a knowledgeable chemist with the permission of your teacher. Could you conduct a small trial run to show me how we can purify my DIRTY SUGAR MIXTURE and then, do another small trial to show me how we can purify my DIRTY WATER MIXTURE.

Write a letter back to me (hand written is okay, one per chemistry student, signed and dated and looking like a letter, including "Dear so and so") telling me the following: a clear listing of the steps you followed, What you smelled and saw at each step, Whether the final result is a SUBSTANCE (explain with both words and a sketch), and list what you wish you could do differently to improve the steps, so my technicians can achieve success when they try to duplicate your work.

Thanky thanky,

Iain M. Banks

New York, NY