S100: Science: a foundation course S100/05: Science Course Unit 5

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Clip transcript: A demonstration of the diffusion of a gas (bromine)

Alan Walton:

And you know that if you have a bottle of ammonia say, and take the stopper of out it's not long before you can smell the ammonia in the other corner of the room. Diffusion in gases seems to be a rapid process. I have a somewhat more controlled experiment here. This tube here we pumped out most of the air out of it. There's some bromine up here which we can introduce by opening the tap. I'll do it. It was certainly a very rapid process. It looked as if everything was moving up very rapidly. Mind you we couldn't tell the difference between something that was moving up like that, and something that was moving up like that. There could well be a spread in the speeds of the gas molecules.