1. The particles in liquids and gases show random motion. What does that mean, and why does it occur?  
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2. Why does the purple colour spread when a crystal of potassium manganite (VII) is placed in water?  
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3. Bromine vapour is heavier than air. Even so, it spreads upwards in the experiment above. Why?  
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4. **a** What is diffusion?   
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   **b** Use the idea of diffusion to explain how the smell of perfume travels.  
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