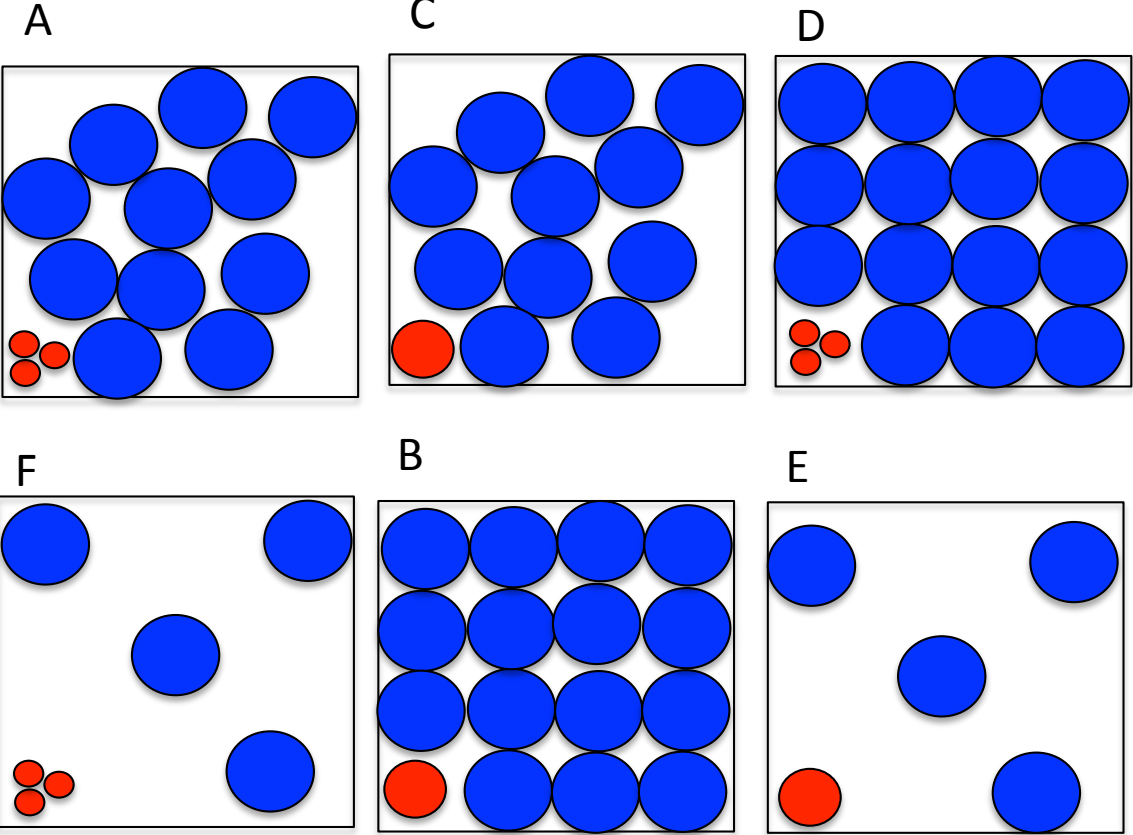


Topic	Diffusion (rate)	Level	Key Stage 3 (or any course for students aged 11-14)
Outcomes	<ol style="list-style-type: none">1. To use the particle model to explain diffusion2. To explain the effect of particle size and temperature on the rate of diffusion		
Information for teachers	<ul style="list-style-type: none">• The purpose of this task is to get students to think! By thinking first and making a prediction, they are more likely to remember the explanation when it is reviewed.		

In which particle model(s) would the red dye diffuse the fastest? Arrange the pictures in order of rate of diffusion.

Start with the slowest first.

 Water particle

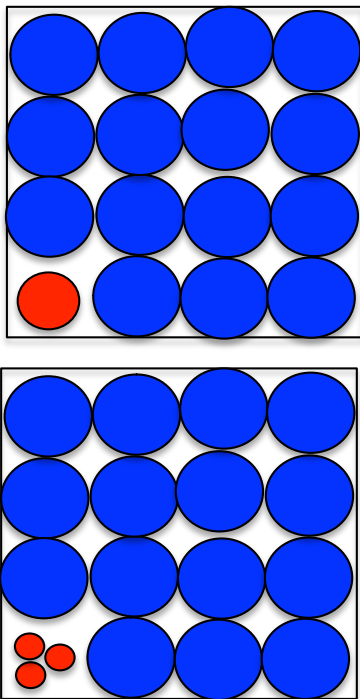


Arrange the particle pictures in order of diffusion rate.

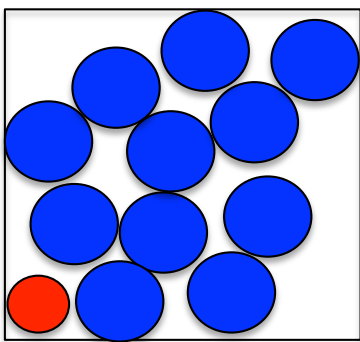
No diffusion Fastest

Rate of diffusion of the red dye

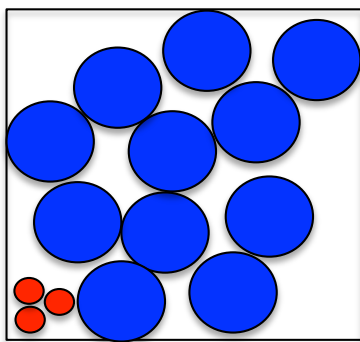
B



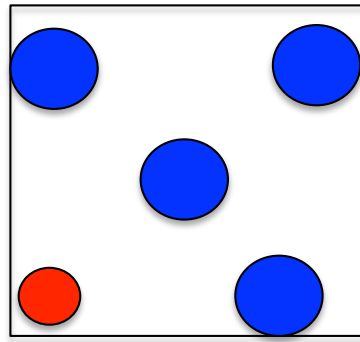
C



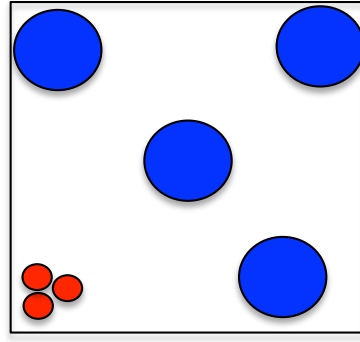
A



E



F



1. Using the diagrams, state two factors that affect the rate of diffusion?
2. Why is diffusion not possible in solids?
3. Explain the effect of each factor from Q1 on the rate of diffusion using your knowledge of the particle model.