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Activity 2.2 Tiny particles

Brownian motion

Follow the instructions in the *Student Guide* to observe the tiny fat particles in milk under the microscope.

1. You will notice both large and small droplets. Do you observe any difference between the jiggling motion of the large and small droplets?

2. Why do you think there is a difference?

3. How do your observations support the idea that water is made of tiny particles in constant motion?

You may also remember the phenomenon of diffusion from Year 7. How could you explain how a smell spreads through the room, or some food dye spreads through a glass of water, using the particle model?

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Notebook: Brownian motion

1. Describe the motion of the yellow particles in the simulation.

2. In what way is the motion of the small particles and the large particle similar?

3. In what way is the motion of the small and large particles different?

4. Why do you think that we never see evidence of Brownian motion in large scale systems, without using a microscope?