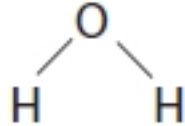


**Mass Transport - Questions by Topic**

**Q1.**

Water is a polar molecule. The diagram shows a molecule of water.



Complete the diagram to show the dipole nature of this water molecule.

**(Total for question = 2 marks)**

**Q2.**

Explain how the dipolar nature of water is essential for living organisms.

(2)

.....

.....

.....

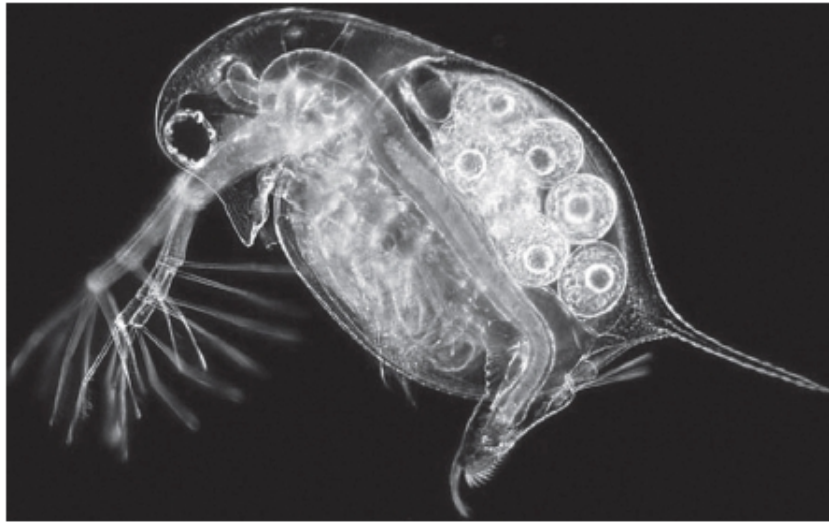
.....

.....

.....

**Q3.**

The photograph below shows *Daphnia* (a water flea). *Daphnia* can be used to investigate the effect of chemicals on heart rate.



Magnification  $\times 30$

Explain why many small animals, such as *Daphnia*, have a heart.

(3)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....