1.3 The Flow of Materials into and out of Cells

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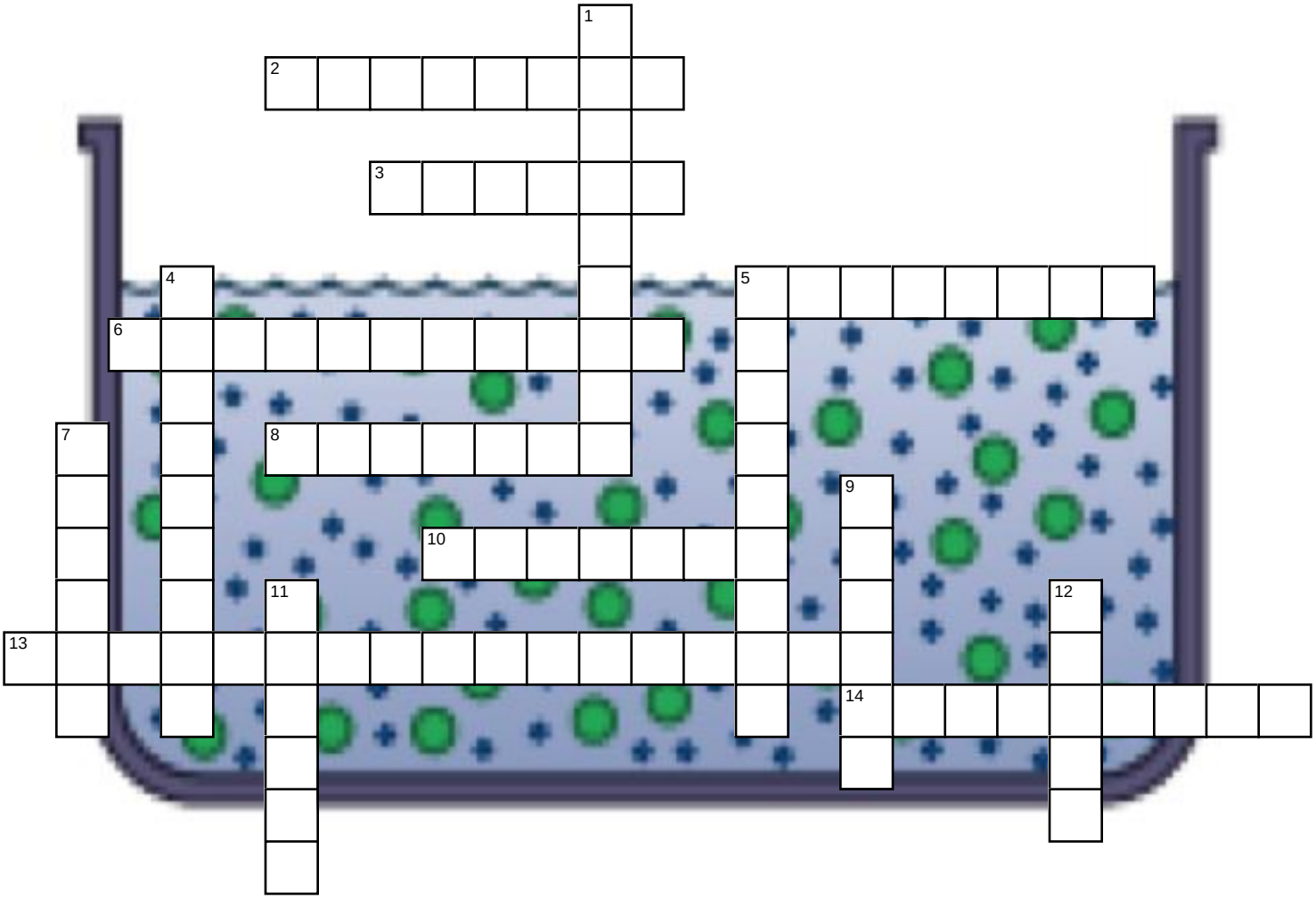

Across

2. Researchers did not see viruses until after the _____ microscope was developed in the late 1930s.
3. Your kidneys help _____ waste materials out of your blood.
5. If your kidneys become damaged, your blood can be filtered artificially using _____.
6. The cell membrane can control the substances that move into or out of a cell because the membrane is _____ permeable.
8. _____ are extremely tiny agents that cause infection. They are smaller than bacteria and they are unable to grow or reproduce on their own.
10. _____ is a special kind of diffusion that involves only the movement of water through a selectively permeable membrane.
13. The movement of substances into and out of a cell is called _____ _____.
14. An electron microscope uses a focused beam of _____ instead of light to create an image of a specimen.

Down

1. During diffusion, _____ move randomly as they shift from a high concentration to a low concentration.
4. Cotton, for example, is _____, which means that water and air can pass through it easily.
5. _____ is the movement of gas or liquid particles from an area of high concentration to an adjoining area of low concentration.
7. Diffusion is how resources such as _____, which is used to produce energy, are transported into a cell through the selectively permeable membrane.
9. Every cell in your body (and in every other organism) is bringing water, food and gases in and removing _____ at every moment of the day.
11. Osmosis is involved in giving _____ the rigidity they need to reach up for sunlight.
12. During osmosis water moves across a selectively permeable membrane from an area of high _____ concentration to an area of low _____ concentration (same word).