**Semipermeable Membranes Pre/Post-Quiz Answer Key**

1. Describe a semipermeable membrane.

Semipermeable membranes are thin layers that separate two mediums and permit some particles to pass through while others get held back. They can serve as filters, such as in dialysis treatments where waste passes through the membrane and gets removed from a person’s blood.

1. Compare and contrast diffusion and osmosis.

**Diffusion** **Osmosis**

Particles spread out within a solution

Particles move from areas of high concentration to areas of low concentration

Water moves from areas where particles are at low concentration to areas where particles are at high concentration

Move across a semipermeable
membrane

Helps body reach homeostasis

Movement based on concentration

1. Complete the diagram that shows the steps of the engineering design process.



Test and evaluate

Identify the problem

Redesign

Research the problem

Develop possible solutions

Communicate the solution

Select the best solution

Create a prototype