

# Student Worksheet

## Kidney Function Model

### Data Table

|  | Color | Clarity | pH | Salt in ppm | Glucose |
|--|-------|---------|----|-------------|---------|
| <b>Initial Observation (Water)</b>           |       |         |    |             |         |
| <b>Simulated Urine Observations and Data</b> |       |         |    |             |         |

### Post-Lab Questions

1. *True or false:* Urinalysis is typically used to diagnose health problems. If false, explain.
2. Describe the color and clarity of the simulated urine sample (second day) and what these results might indicate in a real world scenario.
3. Was the pH of the simulated urine sample acidic, neutral or basic? If this were a real sample, what possible dietary factors may have been responsible for this pH level?
4. Is it likely that under microscopic investigation salt crystals would be observed in this sample?
6. Did your simulated urine sample test positive or negative for glucose? Explain what your findings may indicate if this were a real sample.
5. Certain components of the simulated blood remained inside the nephron model (dialysis tubing) and did not pass through to the urine. Compare this to actual kidney function using terms from the *Background* section.