**Identifying Design Components of the Filtration Design Challenge**

**ANSWER KEY**

1. What is the goal of the design challenge?

**Either:**

**To filter the water to the cleanest standard (standard A)**

**To earn the most money for filtering the water**

**(The second answer will probably be less common, but is also acceptable. Here’s the rationale: Because the highest quality filtration often takes more time and yields less water, students could foreseeably decide to filter more water at slightly lower quality to earn more money.)**

1. What are the limits (constraints) that you need to consider when designing your water filter?

**Either:**

**We can only use a certain number of materials.**

**We have to stay within a certain budget when choosing our materials.**

1. How can you determine how successful your design is?

**Compare our filtered samples to the standard solutions of water. Solution A is the cleanest.**

**Determine how much money we earned for our filter design.**