

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.)

2) 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.

3) 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.