



Sustainable Water Solutions

Student Worksheet

Name: _____ Date: _____

Circle the global water issue you will focus on below. Then, open a web browser and type in the web address next to it. This will take you to a video on the California Academy of Science's website. Watch this video by yourself (make sure you are wearing headphones!), then work through the rest of this exercise with your partner. You may need to watch the video more than once.

Your global water issue:

Growing need for freshwater: <https://www.calacademy.org/educators/desalination>

Water waste: <https://www.calacademy.org/educators/waste-water-recycling>

Aquifer depletion: <https://www.calacademy.org/educators/recharging-aquifers>

Agricultural water use: <https://www.calacademy.org/educators/water-wise-farms>

1. The video you just watched introduced you to one or more possible solutions to your global water topic. Write those solutions down in your own words below:





2. The solutions introduced in the video are not necessarily the only solutions to these issues. Can you think of any others? **With your partner**, brainstorm for 1-2 minutes, and try to write down another possible solution below. Don't worry if you feel like your idea isn't a perfect solution. If we already had a perfect solution to this issue, we wouldn't be talking about it now!

3. **What are some of the strengths and weaknesses of the solutions that you have explored today?** Fill in the two tables on the next two pages by brainstorming with your partner some pros and cons for **any two** solutions.

You know an issue is complex when it can be evaluated from many angles. As you list strengths and weaknesses for your solutions, consider implications that are **environmental (how it affects nature and the environment)**, **social (how it affects people, like if it is safe)**, **economic (how expensive is it)**, and **cultural (how it affects or influences people's traditions and behaviors)**.





SOLUTION #1

Strengths

Weaknesses

Environmental:

(does it affect nature or the environment?)

Social:

(does it affect people, like is it safe?)

Economic:

(does it cost a lot of money?)

Cultural:

(does it account for or impact different people's traditions or behaviors?)





SOLUTION #2

Strengths

Weaknesses

Environmental:

(does it affect nature or the environment?)

Social:

(does it affect people, like is it safe?)

Economic:

(does it cost a lot of money?)

Cultural:

(does it account for or impact different people's traditions or behaviors?)





4. With your partner, decide if you think you have enough information to choose which solution is the best.
- **If so**, list that solution below, and write 2-3 sentences justifying why you think it is the best.
 - **If not**, make a list of what other information you might need to make this decision.

