

Name:

Date:

Class:

Aquaponics Worksheet **Answer Key**

Match the Sustainable Development Goals with the definitions:

<p>A. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.</p>	<p>12. Responsible Consumption and Production</p> <p>___ B ___</p>
<p>B. Ensure sustainable consumption and production patterns.</p>	<p>2. Zero Hunger</p> <p>___ A ___</p>
<p>C. Make cities and human settlements inclusive, safe, resilient, and sustainable.</p>	<p>11. Sustainable Cities and Communities</p> <p>___ C ___</p>

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You will make the pots for an aquaponics system.

Ask - Identify the need and constraints.

Must fit 4-6 planters in each bed; must float or be suspended above the water; and must hold soil and allow roots to reach the water.

Research - What do plants need to grow?

light, water, air, nutrients, and a proper temperature

Imagine - Draw your possible solutions.

1 Answers will vary	2 Answers will vary
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3 Answers will vary	4 Answers will vary
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Plan - Select your solutions and materials. Get the teacher's signature before starting to build.
Student solutions will vary. They will need to obtain teacher approval prior to starting their build

Create - Build your project.
Students will build their project.

Test - What's working? What's not working?
Students will write about how well their project held soil or how well the pot stayed above water.
Answers will vary.

Improve - How could you make your project better? Build a second iteration.
Answers will vary depending on how well their project worked.

Reflection - How does this project have an impact on the Sustainable Development Goals we learned about in class? Select one to write about and connect it to the project.
2. Zero Hunger 11. Sustainable Cities and Communities
12. Responsible Consumption and Production

Zero Hunger - aquaponics can be used to provide fresh, healthy food in underserved communities.

Sustainable Cities and Communities - aquaponics can benefit communities by ensuring sustainable and resilient food systems that are inclusive and safe.

Responsible Consumption and Production - aquaponics is a closed system that reduces water consumption and promotes reuse of waste materials.

Reflection - What worked well? What didn't work? Students will write about how well the roots made it to the soil, or how well the pots floated on the beds.

Create a poster for selling your product to communities. Students will create a poster within their small groups to educate others about their design and sell the benefits of it to their community.