

Name _____

Rainy Days

Rainwater Collection Systems

One way to conserve water is to collect rainwater for future use.

Research rainwater collection systems and how they can be beneficial.

If you struggle with your research, try the following phrases to get you started.

- DIY rainwater collection systems
- Roof rainwater catchment calculator
- Water source implementation tools
- Pros and cons of rainwater harvesting

1. What are the advantages and disadvantages of using rainwater collection systems?

2. How do rainwater collection systems work?

3. What do you need to consider when designing a rainwater collection system?

4. What do you need to make your own rainwater collection system?

5. What are important factors to consider related to the roof or water catchment area?

6. How can you predict how much water your rainwater system will collect?

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Product Design

Your task: Design a rainwater collection system for home use.

Describe existing products and how you wish to improve on them.

What requirements do you need to meet to successfully complete your task?
If needs are conflicting, which take priority?

How will you determine your success in completing your task?

Brainstorm and describe three products that could fit your needs.

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Product Design, *continued*

Rank how well each product meets your requirements.

Criteria	Product #1:	Product #2:	Product #3:
Requirement #1: _____			
Requirement #2: _____			
Requirement #3: _____			
Requirement #4: _____			
Requirement #5: _____			
Total Points			
Notes			

Which product is the best choice to complete your task? Why?

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Product Design, *continued*

Use your knowledge of right triangles to design and describe the roof catchment for your rainwater collection system. How much water can you expect to collect using your system with the roof you designed?

Draw a sketch of the rainwater collection system you designed.