

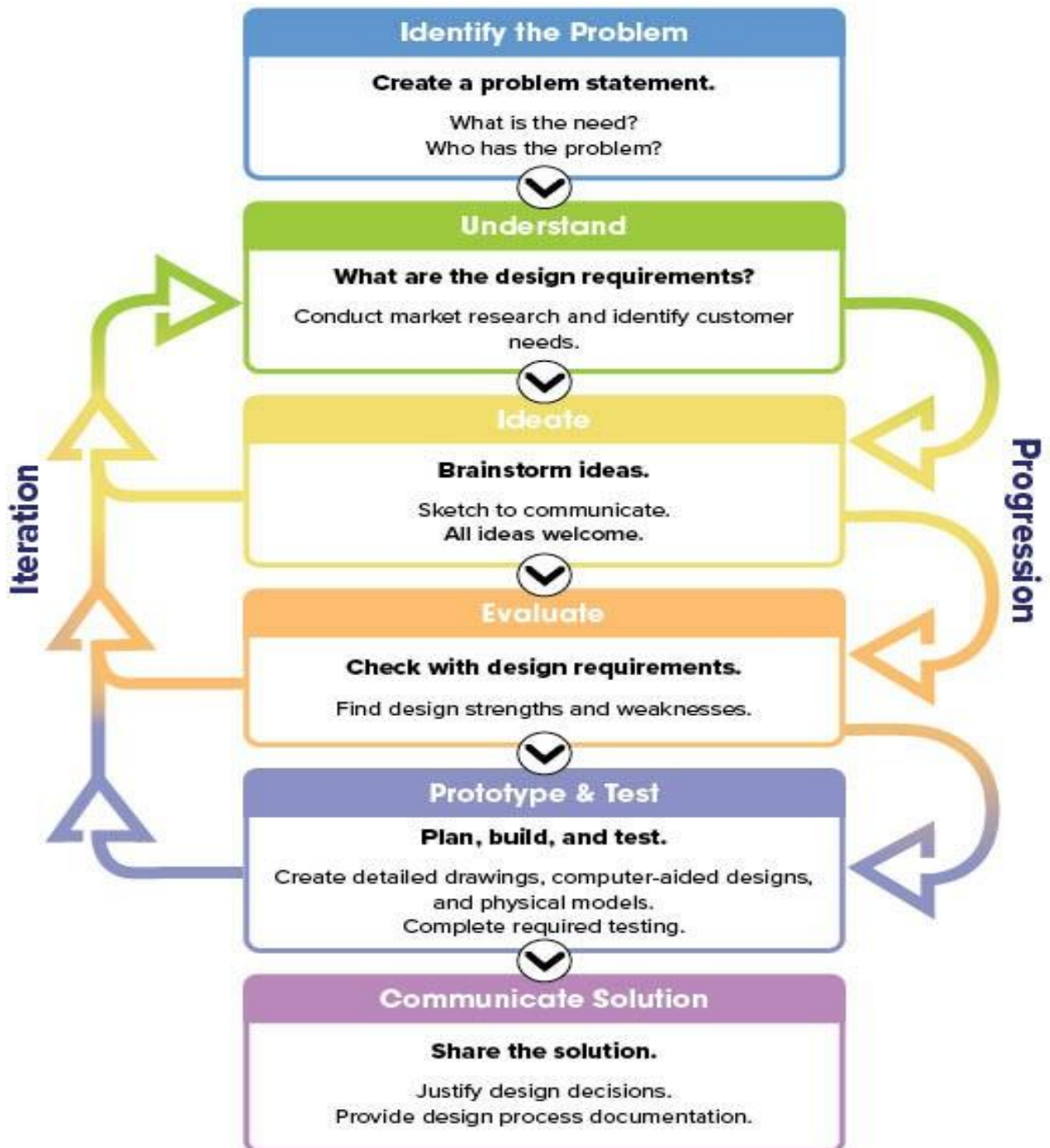
**BIRDEE UNIT 1
DIGITAL PORTFOLIO
MODULE 2**

Name:

Date:



Engineering Design Process



1.2.2. Lotus Effect Test Results

Group: _____

Date: _____

Your group will conduct a Lotus Effect Test with three samples that have been prepared with the Neverwet Solution. Once your samples have dried overnight, test them using the liquids listed below. Record and reflect on the results with your group.

Test 1 Material: _____

Observations

When water is applied on treated material.	When colored/dirty water is applied on treated material.	When Chocolate Syrup is applied on treated material.	Summarize the overall results for the Test:
When the water is applied to non-treated material.	When colored/dirty water is applied on non-treated material.	When Chocolate Syrup is applied on non-treated material.	

Test 2 Material: _____

Observations

When water is applied on treated material.	When colored/dirty water is applied on treated material.	When Chocolate Syrup is applied on treated material.	Summarize the overall results for the Test:
When the water is applied to non-treated material.	When colored/dirty water is applied on non-treated material.	When Chocolate Syrup is applied on non-treated material.	

Test 3 Material: _____

Observations

When water is applied on treated material.	When colored/dirty water is applied on treated material.	When Chocolate Syrup is applied on treated material.	Summarize the overall results for the Test:
When the water is applied to non-treated material.	When colored/dirty water is applied on non-treated material.	When Chocolate Syrup is applied on non-treated material.	

1.2.3. Conceptual Design Worksheet

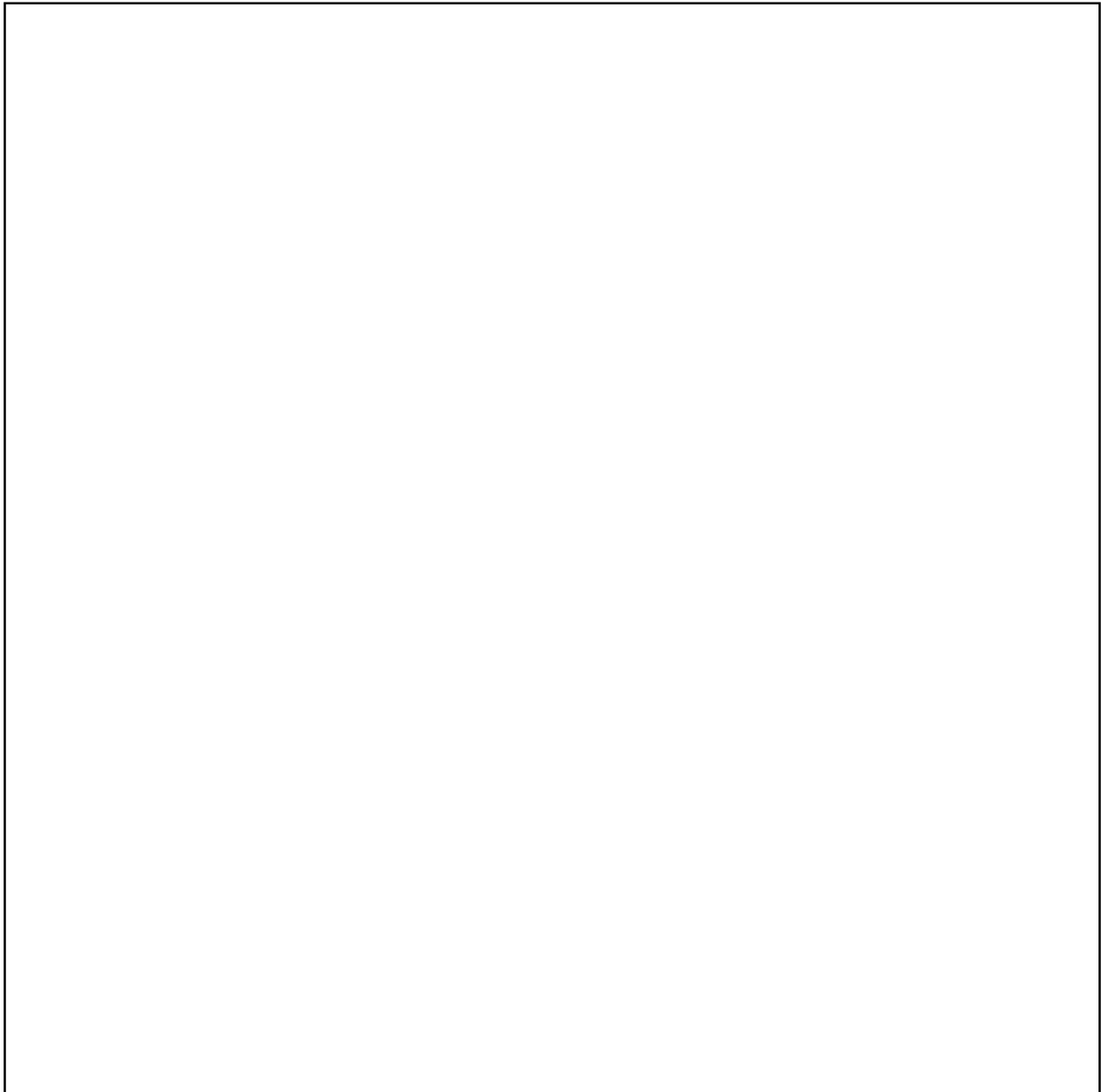
Name: _____

Date: _____

Individually

- Review the design requirements on your 1.1.4. Problem Requirements handout.
- Review the 1.2.2. Lotus Effect Test Results.
- You will have 5 minutes to design a footwear concept that addresses the problem (dirty shoes), meets the requirements, and incorporates testing data.

Initial Sketch

A large, empty rectangular box with a thin black border, intended for the student to draw their initial footwear concept sketch.

1.2.3. Conceptual Design Worksheet

Name: _____

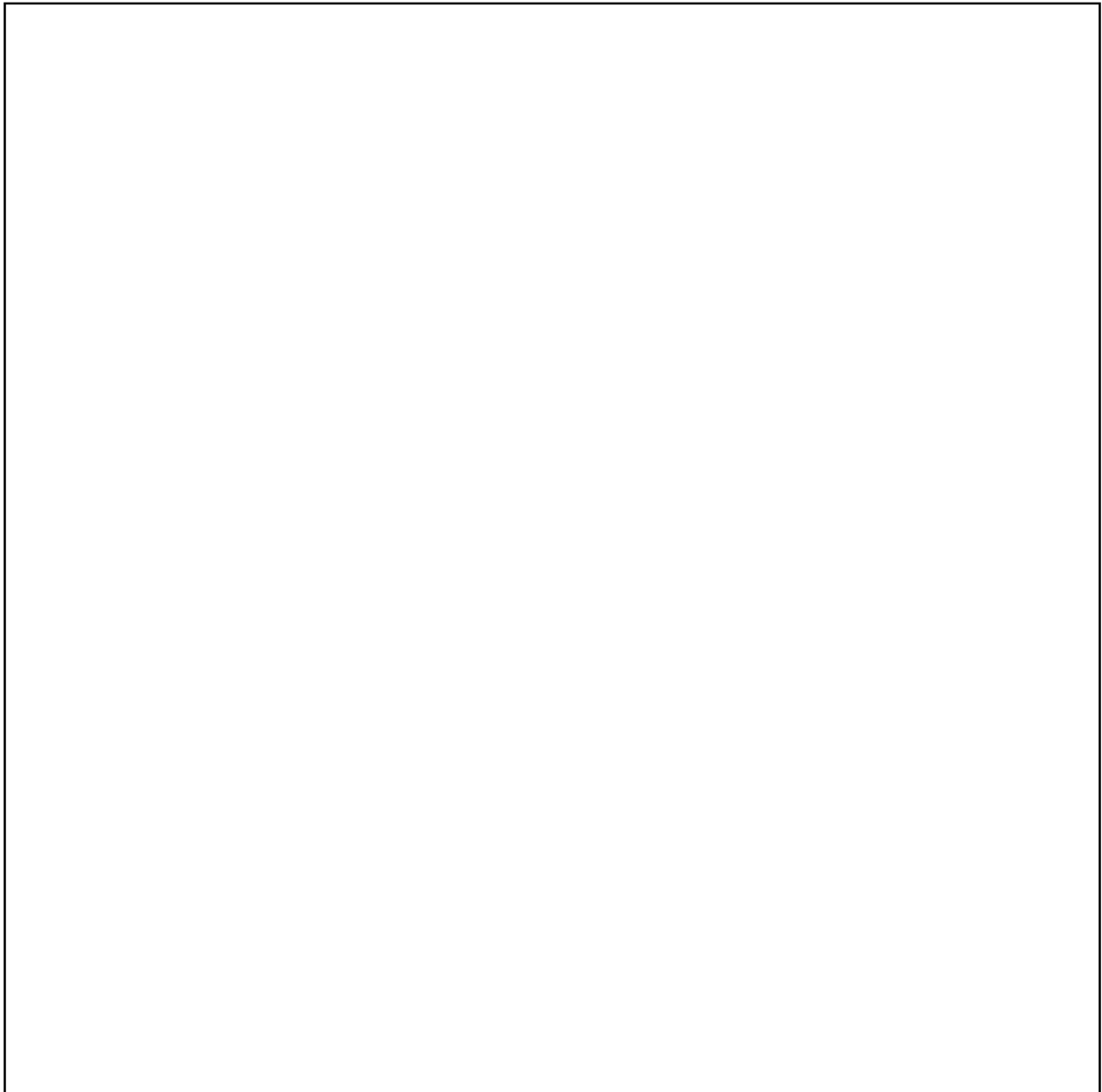
Date: _____

In your Group: Concept Selection

Within groups, share designs. Do they meet design requirements?

Each group will select a final design concept (you may combine multiple ideas). Sketch and label your design below.

Initial Sketch



1.2.4. Design Evaluation Rubric

Use this to evaluate your team's design first.

Your Name:	
Evaluation -Team Members Names:	
Date:	

You will evaluate other teams' design presentations using the following criteria. For each of the four categories, please circle the number and provide comments if needed.

Evaluate the design presentation based on following criteria: 5=Excellent, 4=Good, 3=Adequate, 2=Fair, 1=Poor	Comment (s)					
Problem Understanding						
Problem of getting dirty is clearly defined	1	2	3	4	5	
Design requirements, including users clearly stated	1	2	3	4	5	
Ideation/Prototyping						
Final design concept selected based on design requirements	1	2	3	4	5	
Final design concept drawing presented with details	1	2	3	4	5	
Presentation Style						
Materials presented in clear and logical form	1	2	3	4	5	
Presenter explained concisely main points	1	2	3	4	5	

1.2.4. Design Evaluation Rubric

Now evaluate another team's design.

Your Name:	
Evaluation -Team Members Names:	
Date:	

You will evaluate other teams' design presentations using the following criteria. For each of the four categories, please circle the number and provide comments if needed.

Evaluate the design presentation based on following criteria: 5=Excellent, 4=Good, 3=Adequate, 2=Fair, 1=Poor	Comment (s)					
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