

BIRDEE Unit 1 Lesson Plans

Unit 1 Module 6: Design Challenge Prototype and Test	Materials
<u>Module 6 Overview:</u> 1.6.1 Prototype 1: Build 1.6.2 Prototype 1: Requirements Evaluation 1.6.3 Elaborate to Prototype 2 1.6.4 Prototype 2: Build 1.6.5 Finalize Design	1.6.0 EDPL Map

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1.6.1. Prototype 1: Build

Students will work in their groups to build their initial prototype.

Engage: 5 min

View: [1.6.1. BID WOW!](#)

- This is a Namib Desert Beetle.
- Do you notice anything interesting?
- How does this look similar to the lotus leaf?
- **Class Discussion** on what students think
- **Play video:** [Beetle Collects Water](#) (in ppt)

Explore: 40 min (Group)

- Build your prototype following your conceptual design.
- Students should take photos of all prototypes so they can add them to the EDPL.

Teacher Notes:

- *Teachers should walk around and check in with groups to guide them as they build their prototype.*
- *Teachers can project the [Cardboard Attachment Techniques image](#) on the board.*

Extend: 5 min (Group)

EDPL: Upload images of Prototype 1 to the “Prototype” tab in the EDPL. Link your prototype to the conceptual design in “Ideate” that is the design you followed when building your prototype 1.

Student Handouts:

N/A

Student Materials:

Materials students bring in for their prototype:

Cardboard boxes
Scissors
Tape
Glue
Fabric

-School Facilities-
3D printers

Instructional PPT's & Materials:

[1.6.1. BID WOW!](#)

[1.6.1. Cardboard Attachment Techniques image](#)

Teacher Resources:

N/A

Web Resources:

N/A