BIRDEE Unit 1 Lesson Plans

1.2.5. Engineering Design Process Log - EDPL

The Engineering Design Process is a systematic way of defining and solving problems for people and society. The teacher will introduce the EDPL and model its use with the example of a Doggie Raincoat. Students will follow along and retroactively enter their information from the dirty shoes challenge.

Before the Lesson:
Teachers will need to create an account: **1.2.5. EDPL Teacher Account SetUp**. You will be prompted to set up your classes/workgroups and receive a join code" to share with students.

Engage: 5 min *(Class discussion)*

View: 1.2.5. BID WOW!
- What designs have sharks inspired?
- **Class Discussion** on what students think
- **Play video: Shark Inspired Cleaning** (in ppt)

Explain: 45 min *(Guided Individual)*
EDPL Entry
View: 1.2.5. EDPL Student Tutorial

You have just completed a design challenge to solve the problem of dirty shoes. How did using the design process help you to understand the problem and develop a solution? Did you keep a record of your design process? Would someone else be able to follow your ideas and recreate your solution?

Today we will introduce the Engineering Design Process Log.
The EDPL is a convenient way to capture your drawings, reflections, decisions, and justifications. It will also help you to and navigate through the design process. We will use this tool retroactively today, by entering our data from this first design challenge, to familiarize you with how to use the EDPL. When we begin our new design challenge next Module, your group will enter information in real time to the EDPL.

Teacher Notes:
- *As the teacher models how to use the EDPL, students will be prompted to use specific worksheets to populate their data.*
- *As students enter their data, there may be "holes" where they do not have sufficient information to complete a section of the log. This is a great opportunity to explain to students why it is important to add data in real time in order to guide them through the EDP and ensure they create the most effective solution to their problem.*

Student Handouts:
Students should have access to all of the handouts from the last 2 weeks.

Student Materials:

1.2.5. EDPL Student Tutorial

Instructional PPT's & Materials:

1.2.5. BID WOW!

1.2.5. EDPL Student Tutorial

Teacher Resources:

1.2.5. EDPL Teacher Account SetUp

Web Resources:

Shark Inspired Cleaning
1.2.5. EDPL Student Tutorial