Kingdom Vacation - Day 8 (50-minute class period)
by Jessica Cleeves Dwyer

Grade Level(s)
7th grade Science

Lesson Overview

Students will reflect on their prototype feedback and personally suggest “fail forward” revisions.

Learning Objectives

Students will be able to explain the role of productive feedback in prototype refinement, and will define key characteristics of their kingdom.

Standards

Standards (Utah Science Grade 7):
- Objective 3 - Classify organisms using an orderly pattern based upon structure.
  - Identify types of organisms that are not classified as either plant or animal.
  - Arrange organisms according to kingdom (i.e., plant, animal, monera, fungi, protist).

Learning Goals:
- Academic: Students will be able to.
  - Define research/interview questions
  - Organize information according to organism need
- Socio-affective:
  - Build empathy for non-human organisms
  - Interact productively in groups towards shared generation of a novel product

Preparation
- Consider space to safely store prototypes

**Materials and Resources**

Students need:
- their prototype
- their feedback forms from specialists

Teacher needs:
- personal reflection questions projectable/writable on board

**Activity 1: Fail Forward - Review Feedback from Your Specialist (20 minutes)**

As a team, students review feedback from their specialist. For each piece of feedback, they generate at least two ideas to address feedback towards improving their prototype.

**Activity 2: Personal Reflection (30 minutes)**

Students write a letter to their past selves, specifically themselves the day before the design challenge began. Their letter addresses the following topic and sub-questions:

Write a letter to yourself before the design challenge. Explain to yourself what you will learn, and how participating in the design challenge will help you in this class and in other areas of your life.
- What did you know about your kingdom?
- What kind of listener were you, and what did the challenge teach you about listening?
- Did you know what empathy is? Do you now? Is empathy important? Why or why not?
- What does “yes, and” mean? Why is it important?
- What does “failing forward” mean? Why is it important?

**Assessment**

Evidence of successful student achievement:
- Each student will submit a letter demonstrating what they have learned about their thinking and about the design process in relationship to themselves as learners.