

Anchoring Elementary Learning:

Using the QM Rubric to Build Unplugged Community

Tani Sapp - Braintree Educational Services

Session Agenda

- Dilemmas in elementary online learning
  - Engagement
  - Screentime
  - Alignment
- How it all began
- Solutions by Design









Dilemmas in Elementary Online Learning

The Big Three: Engagement, Screentime, & Alignment

- ➔ Engagement
  - ◆ Keeping them moving while keeping them seated
- ➔ Screentime
  - ◆ 16 states with screentime regulations moving through legislative body during the 2026 session
- ➔ Alignment
  - ◆ Meeting QM, NSQ, and state expectations



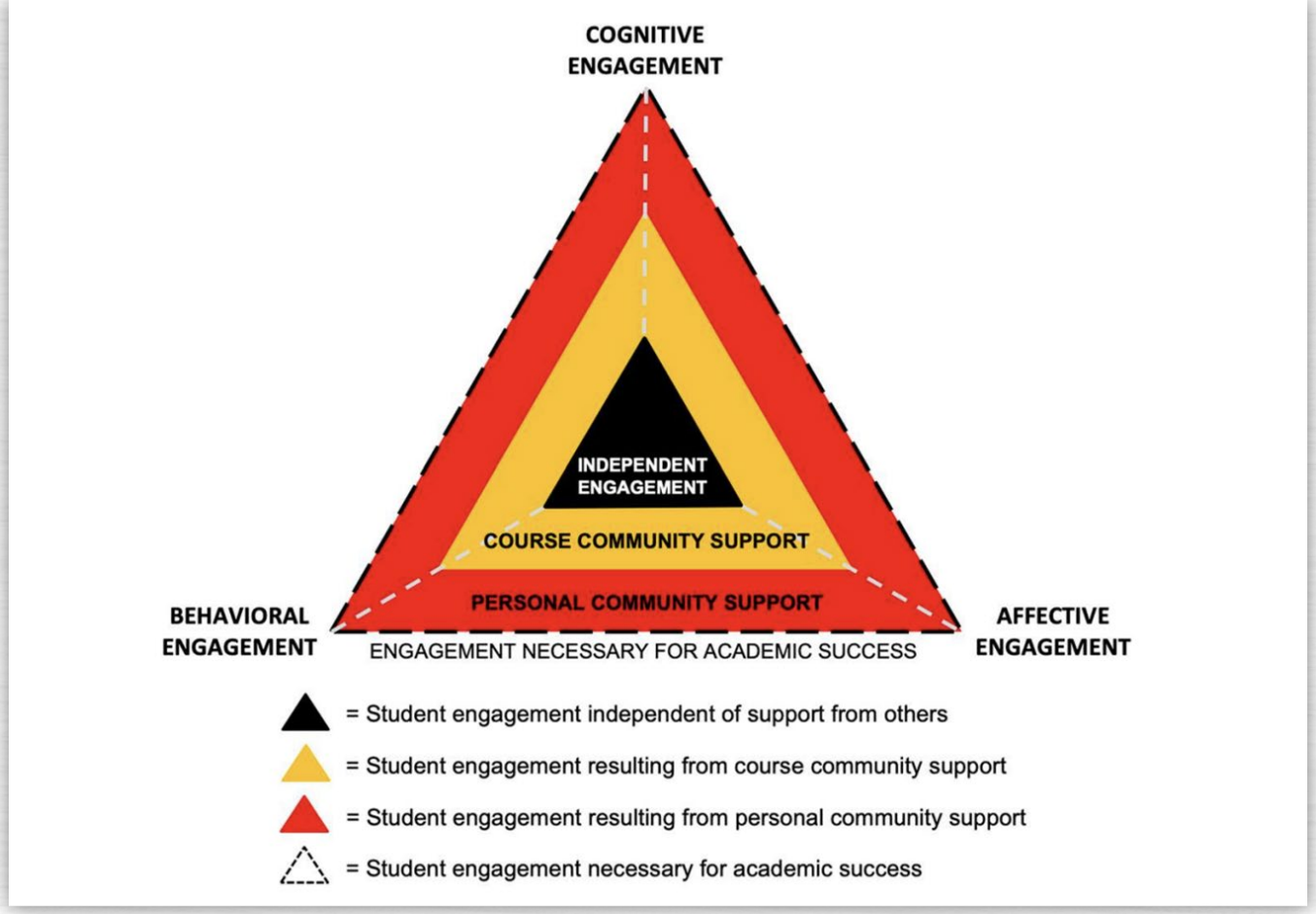
The Rationale

- Brick and mortar enrollment is decreasing
- Online enrollment is stagnant

There are parameters that brick and mortar classrooms have that online classrooms do not.

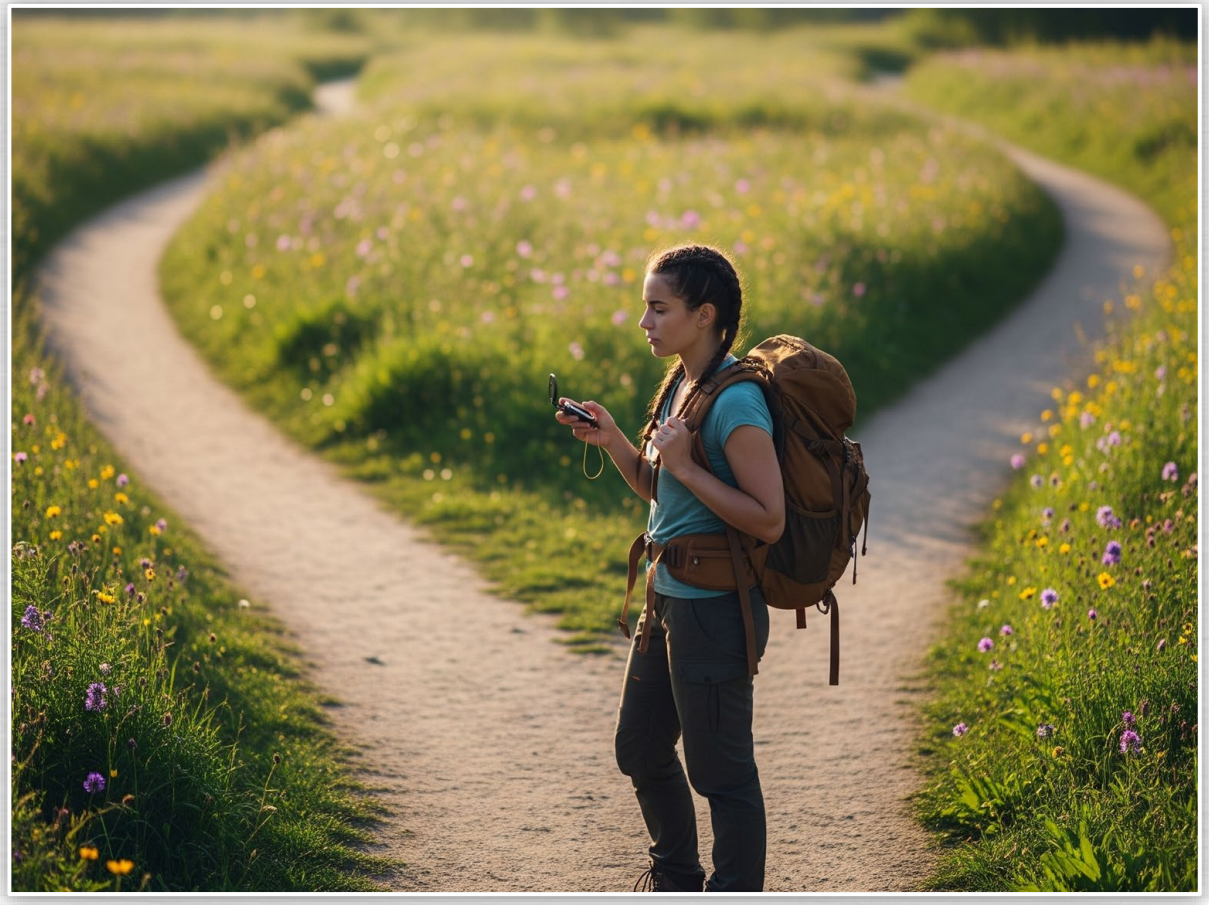
Engagement

The ACE Framework **(Borup, 2020)**



How it all began

Battling Screentime





Best Practices

Community based

- Build strong personal communities of support (Spring, 2023). Find out where the students are already engaging - ***leverage it.***

- Many communities are moving to homeschool in order to preserve culture and the family unit

(Batts, 2024; Puga, 2019; Tsz-lok Lee, 2024)



Project Based Learning

- Intentionally embedded gives students of all ages and stages a chance to engage. Results show positive gains in all domains of engagement.

  (Çiftçi,, 2013; Peffer, 2021)



Curriculum Development

- Curriculum development created FOR multi-grade or PBL classrooms.
  - Research from brick and mortar multi-grade classrooms shows heavy burden on teachers when curriculum isn't designed for multi-grade learning *(Msimanga,, 2020)*



Best Practices

Teacher Development

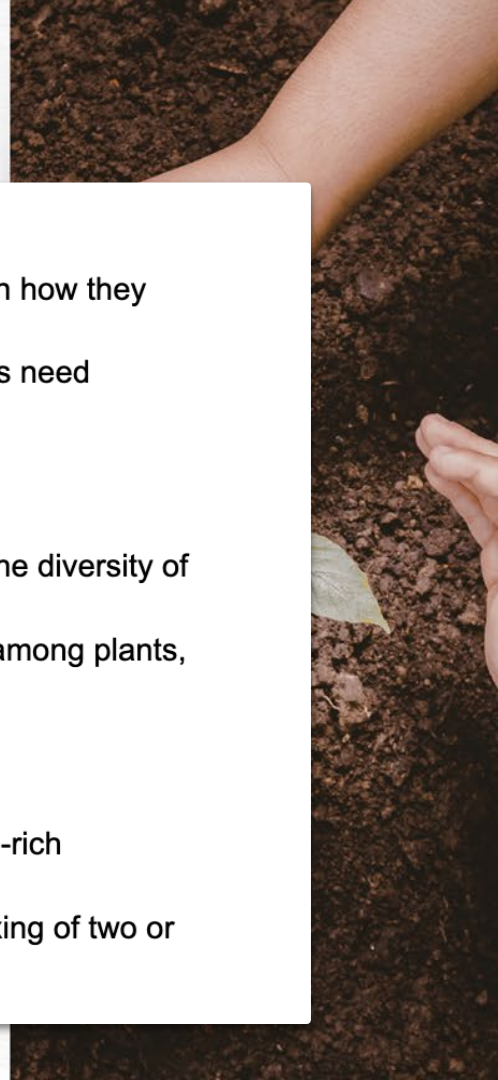
- Specially designed professional development for multi-grade, community based, and online learning *(Msimanga,, 2020)*

Solutions by Design



Design Process

Layering Standards



What Happens to Food Scraps?

- Explore what happens to food scraps when they are left outside or in soil, and learn how they can turn into compost through decomposition.
- Aligned Standard: 2-LS2-1: Plan and conduct an investigation to determine if plants need sunlight and water to grow.

What Lives in Soil and How Do They Help Plants?

- Aligned Standard: 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.
- Aligned Standard: 5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

What Makes Good Compost?

- Learn about the balance of “greens” (nitrogen-rich materials) and “browns” (carbon-rich materials) needed for composting.
- Aligned Standard: 5-PS1-4: Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Design Process

The outline

Learn:
Have you ever wondered what happens to food scraps like banana peels, apple cores, or leftover vegetables? Instead of throwing them away, these scraps can break down into something incredible—rich, healthy soil that helps plants grow big and strong. Today we will learn about how we can use our old food scraps to grow new, nutritious food. Research to answer the following questions as you begin this exploration.

3-5:

- What Is Decomposition? Study how organic matter (like food and leaves) breaks down and the role of decomposers.
- What makes good compost? Learn about the balance of “greens” (nitrogen-rich materials) and “browns” (carbon-rich materials) needed for composting.
- Why is composting important? Investigate how compost improves soil health and provides nutrients for plant growth.

6-8:

- What Are the Chemical and Biological Processes in Composting? Research the role of microbes, pH, temperature, and moisture in breaking down organic matter.
- How Does Composting Reduce Waste and Benefit the Environment? Study the environmental impact of composting, including waste reduction and carbon sequestration.
- What Is the Role of Decomposers and Microorganisms in an Ecosystem? Explore the importance of decomposers (bacteria, fungi, and invertebrates) in the cycling of matter and nutrients.

Mini Golf

How can we use geometry to design an appealing and challenging mini-golf course?

Day 10: Design & Sketch

- Review the space for the student's mini-golf course and the overall size of each team's designated space.
    - Individually sketch a new mini golf hole that uses angled approaches, elevation changes, and at least one obstacle to make the hole challenging.
    - Discuss how different shapes, lines, and angles contribute to the challenge of the hole's design.
- Share revised hole designs.
- Determine how to incorporate four out of five of the following into your hole design:
    - Parallel and non-parallel walls
    - Differently shaped obstacles
    - Hills, angled turns, and elevation changes
- Create sketches that show your hole design. Describe in writing how different shapes, lines, and angles contribute to the challenge of the hole's design.

Day 11: Plan Tournament

- Finalize the student's description of how different shapes, lines, and angles contribute to the challenge of the hole design.
- Record thoughts about your design in your journal.
- Write an invitation to friends or family members asking them to join the Mini-Golf Masters Tournament.
    - Discuss and then incorporate key information into a written or email invitation.
    - Distribute invitations.



UNIT STUDIES

Physical Science

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Week 1

Pushes, Pulls, and Predicting Motion

Driving Question:
How do pushes and pulls affect the way things move?

Day 1 – What Is a Force?

Goal: I can identify and describe forces in the world around me.

Learn:
A force is a push or a pull. Forces are all around us: when you open a door, stack blocks, or roll a ball, you're using force. Some forces are strong, others are light. Some are made by you (a hand push), and some happen without touching (like gravity or magnetism).

Fourth and Fifth Grade Students: All motion starts because of a force. Forces have strength and direction. A stronger force will make something move faster or farther. A change in force or direction leads to a change in motion—this is part of what Isaac Newton described in his Laws of Motion.

Discuss:

- What are some forces you used already today?
- Did anything move without you touching it?

Do:
In your journal:

- List 5 things you pushed or pulled today.
- Draw or write what happened each time. Label each as push or pull.

Project Connection:
Every Mini Motion Machine starts with a push or pull. You'll need to use force to get your system moving!

Day 2 – What Happens When You Push or Pull Harder?

Goal: I can describe how the strength of a force changes motion.

Learn:
The stronger a push or pull is, the more it affects how something moves. If you gently roll a ball, it goes slowly. Push hard, and it speeds up or goes farther. Scientists test how much force affects movement by keeping one thing the same (like the ramp or surface) and changing the strength of the push.

Fourth and Fifth Grade Students: A greater net force causes greater acceleration. If two equal forces act in opposite directions, they cancel out (balanced). If one is stronger, the motion changes (unbalanced). These are Newton's First and Second Laws in action.

Discuss:

- Can you think of a time when you used too much or too little force?
- What happens if you use different strength pushes on the same object?

Physical Science Day Three

Test #1	Test #2	Test #3

Physical Science Day Four

Object _____ **Ranking:**

Surfaces _____



Weekly Submission Prompts

Choose one experiment or mini system you created this week. Answer the prompt for your grade level in 2 sentences. Include a labeled force diagram if your prompt asks for one.

Kindergarten

- Draw what happened when something hit something else. Use arrows to show how it moved before and after the bump.

1st Grade

- Choose a tool you used to stop or change motion. Describe how it worked and show motion with arrows.

2nd Grade

- Describe what happened when your object hit something or turned. What helped control the motion?

3rd Grade

- Pick a mini system you built. Draw a force diagram showing how forces made the object start, change, or stop.

4th Grade

- Describe how at least two forces worked together to change motion in your test. Include a labeled diagram of the system.

5th Grade

- Analyze your system: What were the forces? Where were they balanced or unbalanced? Label all parts of your force diagram.







Building: Weeks 1 - 3

Week 1: Explore

- Launch your topic
- Allow Exploration
- Where can students personalize?
- How does it build toward the final product?

Exploring the Properties of a Single Art Medium

Learning Objective:

Students will gain foundational experience in working with a single medium by exploring its fundamental properties. Through experimentation with different tools and techniques within the medium, students will develop an understanding of how the medium behaves and how it can be used for artistic expression.

Instructions:

Step 1: Choose Your Medium

Select one medium from the list below that you are interested in working with:

- Pencil (Graphite or Colored Pencils)
- Charcoal (Vine or Compressed Charcoal)
- Ink (Fine Liners, Brush Pens, or Traditional Dip Pens)
- Watercolor (Watercolor Pencils or Paints)
- Acrylic Paint

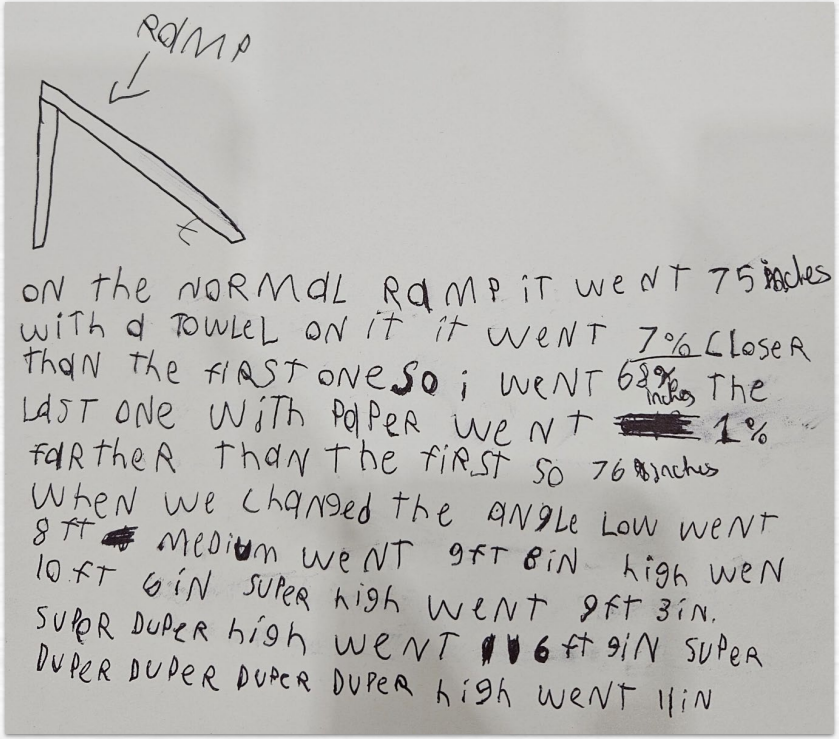
Step 2: Experiment with the Medium

Before creating a complete artwork, spend time testing your chosen medium by doing the following:

1. **Mark-Making Exploration**
    - Experiment with different ways to use your chosen medium.
    - Create a small sample sheet exploring a variety of marks, such as:
        - Light and dark shading
        - Thick and thin lines
        - Blending and layering
        - Any special textures or effects
2. **Testing Pressure and Control**
    - Try applying different levels of pressure or speed to see how they change the marks you create.
    - Test using different tools (e.g., soft vs. hard graphite pencils, fine vs. thick ink pens).

Step 3: Create a Small Artwork

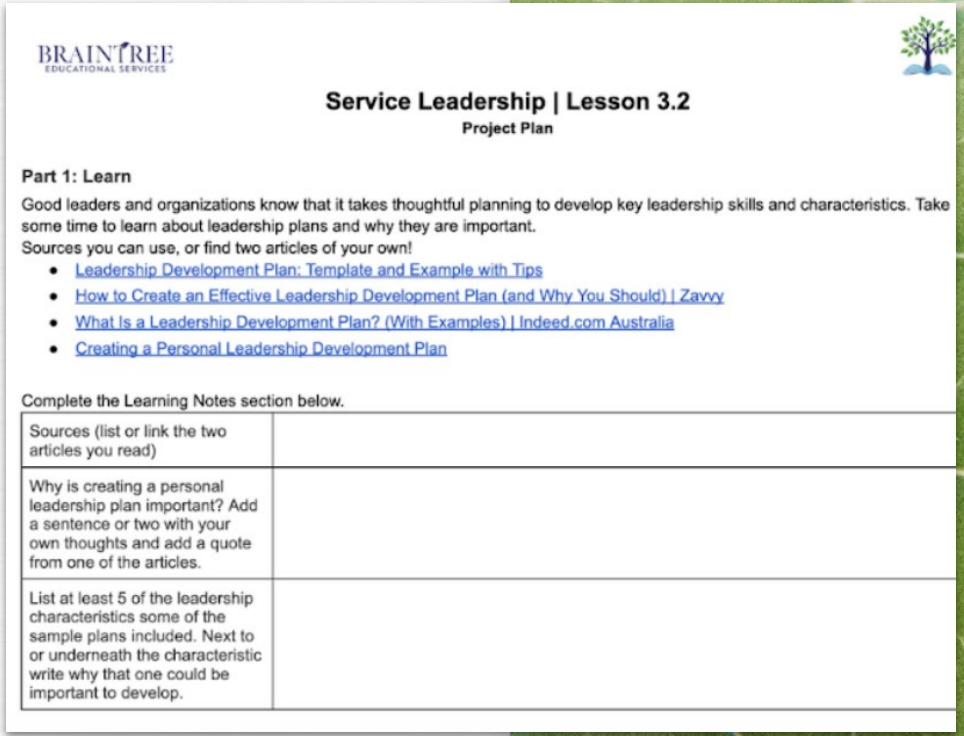

SOCCER


Ramp
on the NORMAL RAMP it WENT 75 inches
with a TOWEL ON it it WENT 7% CLOSER
than the FIRST ONE SO i WENT 68% inches the
LAST ONE WITH PAPER WENT [redacted] 1%
FARTHER THAN the FIRST SO 76 inches
When we changed the ANGLE LOW WENT
8ft MEDIUM WENT 9FT 8IN high WEN
10FT 6IN SUPER high WENT 9FT 3IN.
SUPER DUPER high WENT 116 ft 9IN SUPER
DUPER DUPER DUPER DUPER high WENT 1IN

Building: Weeks 1 - 3

Week 2: Investigate

- **Where do you see the standards/competencies?**
- **How are they accessing learning materials?**
- **Where can you scaffold learning?**
- **Where can they collaborate with community members?**



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Service Leadership | Lesson 3.2

Project Plan

Part 1: Learn

Good leaders and organizations know that it takes thoughtful planning to develop key leadership skills and characteristics. Take some time to learn about leadership plans and why they are important.
Sources you can use, or find two articles of your own!

- Leadership Development Plan: Template and Example with Tips
- How to Create an Effective Leadership Development Plan (and Why You Should) | Zavvy
- What Is a Leadership Development Plan? (With Examples) | Indeed.com Australia
- Creating a Personal Leadership Development Plan

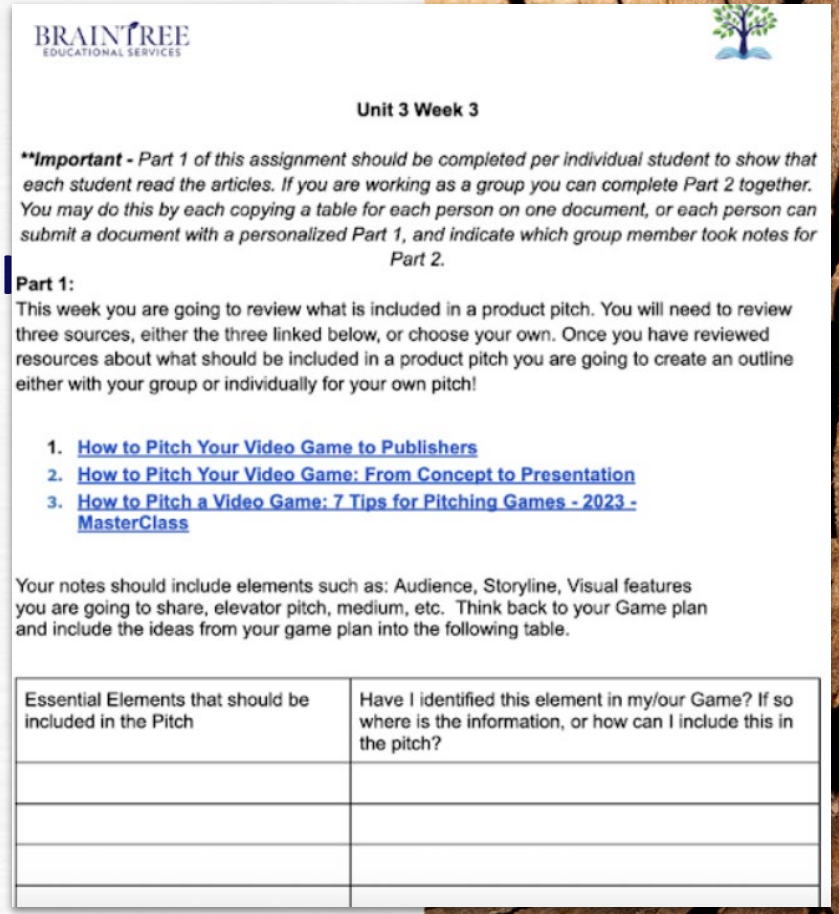
Complete the Learning Notes section below.

Sources (list or link the two articles you read)	
Why is creating a personal leadership plan important? Add a sentence or two with your own thoughts and add a quote from one of the articles.	
List at least 5 of the leadership characteristics some of the sample plans included. Next to or underneath the characteristic write why that one could be important to develop.	

Building: Weeks 1 - 3

Week 3: Apply/Draft

- **How are they preparing for the final product?**
- **What do they need to do to demonstrate their learning?**
- **How are they taught to reflect?**



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Unit 3 Week 3

***Important -** Part 1 of this assignment should be completed per individual student to show that each student read the articles. If you are working as a group you can complete Part 2 together. You may do this by each copying a table for each person on one document, or each person can submit a document with a personalized Part 1, and indicate which group member took notes for Part 2.*

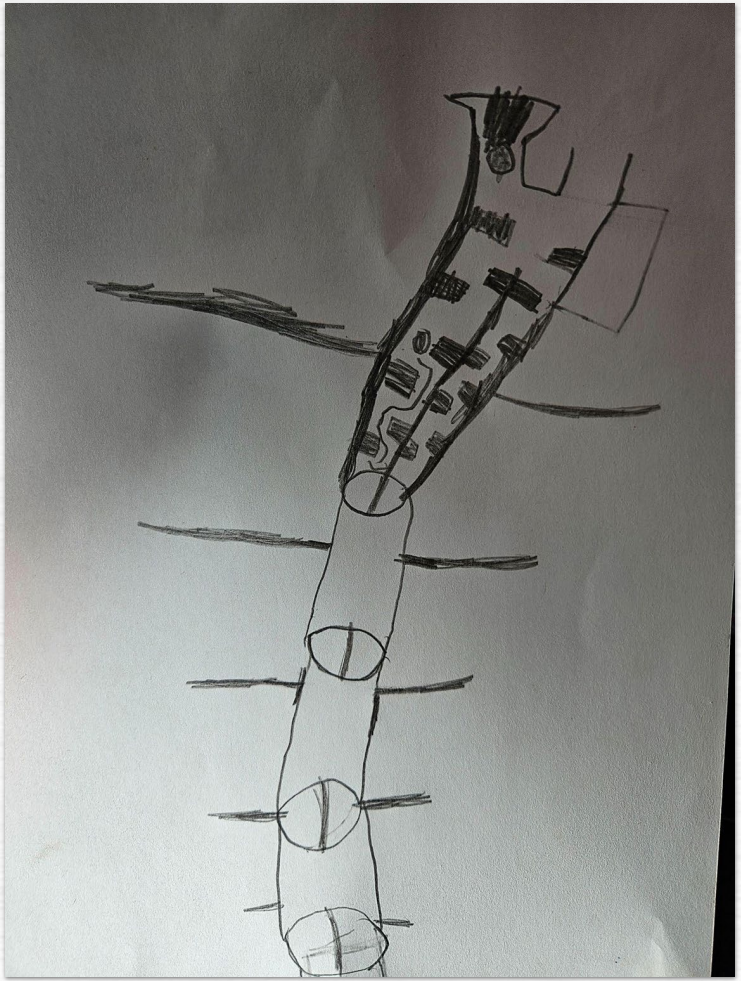
Part 1:

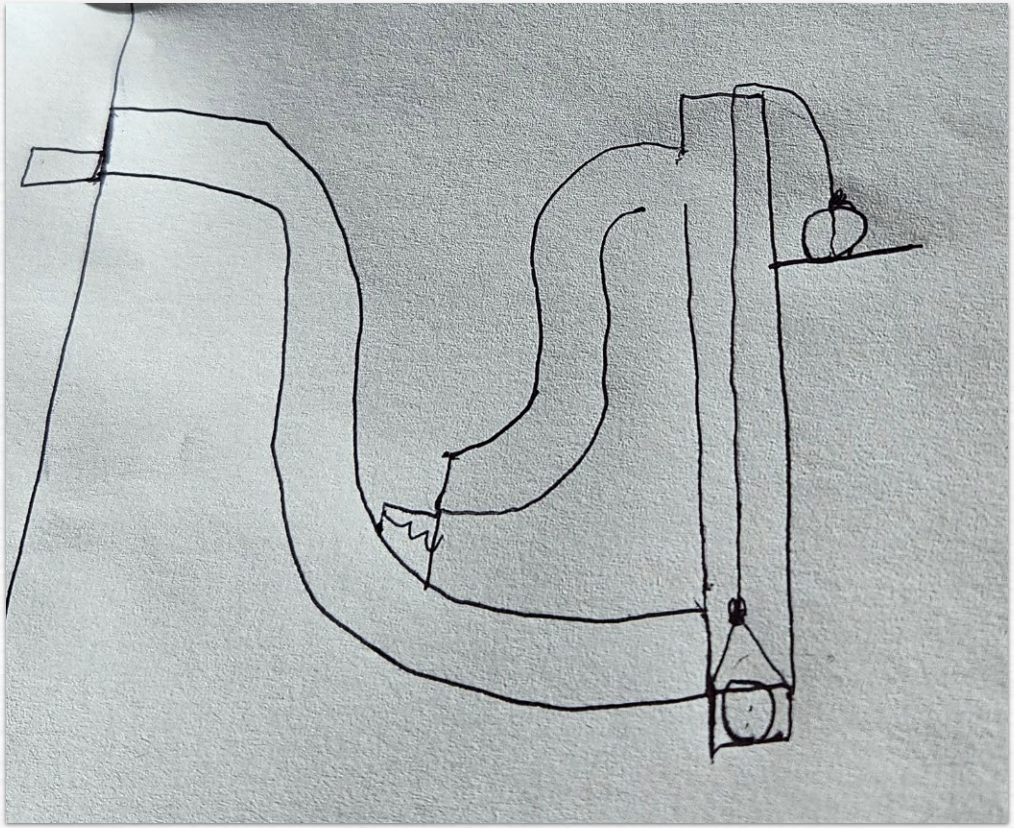
This week you are going to review what is included in a product pitch. You will need to review three sources, either the three linked below, or choose your own. Once you have reviewed resources about what should be included in a product pitch you are going to create an outline either with your group or individually for your own pitch!

1. How to Pitch Your Video Game to Publishers
2. How to Pitch Your Video Game: From Concept to Presentation
3. How to Pitch a Video Game: 7 Tips for Pitching Games - 2023 - MasterClass

Your notes should include elements such as: Audience, Storyline, Visual features you are going to share, elevator pitch, medium, etc. Think back to your Game plan and include the ideas from your game plan into the following table.

Essential Elements that should be included in the Pitch	Have I identified this element in my/our Game? If so where is the information, or how can I include this in the pitch?

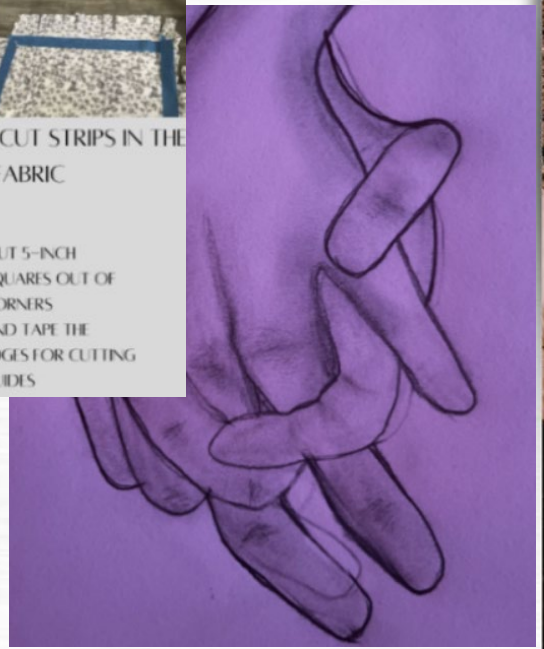




Project Showcase: Week 4

Week 4: Share



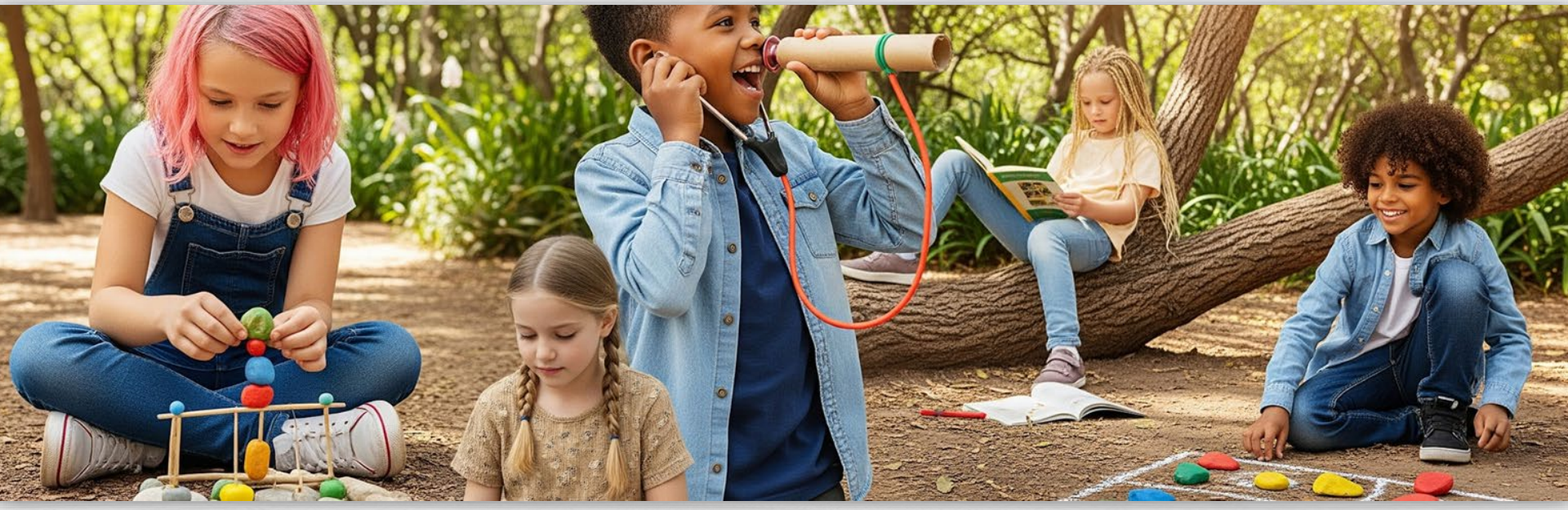





MINI-GOLF
JOURNAL


12 ft
70 ft
77 ft





Tani Sapp - Director of Teaching and Learning
tani.sapp@braintreeed.com



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