Unit Title: Feel It, Fix It: From Awkward to Awesome

Overview:

This G9/10 MYP Design unit introduces students to platformer game design through a focus on game feel, iteration, and player experience. Students will create a 2D platformer using GameMaker Studio, original sprite animations, and GitHub Copilot as an AI assistant. They begin by experiencing an awkward prototype, analyse existing games using the GMTK Platformer Toolkit, and refine their mechanics through iterative design.

Core Learning Tools:

- GameMaker Studio IDE

- Game Maker's Toolkit (GMTK)

- GitHub Copilot for AI-assisted coding

Major Phases:

1. Awkward Prototype: Students play/test a clunky platformer to build intuition for what makes movement feel "off."

2. Game Feel Analysis (A3): Use the GMTK Platformer Toolkit and Celeste analysis video to evaluate good platformer controls.

3. Design Specification (B1): Write a clear spec for how their game should feel and function.

4. Sprite Animation (B2): Design at least three custom animations for their player character (e.g. jump, run, crouch).

5. Implementation (C2/C3): Use GameMaker Studio and GitHub Copilot to build their prototype with functional mechanics.

6. Evaluation (D3): Evaluate the success of the game using self-testing and peer feedback.

7. AI Reflection (D4): Reflect on the impact of using AI and the GMTK toolkit on their experience and design thinking.

Key Themes:

- Responsive and forgiving control schemes (e.g. coyote time, jump buffering)

- Iterative prototyping and feedback

- AI as a coding partner, not a replacement

- Creative control through original sprite design

Design Concepts:

- Evaluation

- Development

- Function

- Feedback

MYP BETA Focus:

- Criterion A3, B1, B2, C2, C3, D3, D4

- ATL Skills: Critical thinking, evaluating tools and systems, design thinking, iteration

Reference Materials:

- GMTK Platformer Toolkit: https://gamemakerstoolkit.com/platformer-toolkit

- GMTK Video: "The Secrets of Celeste's Movement" (used for A3/D3 analysis)

- Shinobi: Art of Vengeance (modern platformer example): https://asia.sega.com/shinobi-art-of-vengeance/en/

Intended Use:

This document is meant to be read by GitHub Copilot or other AI tools to provide development context during code assistance and feedback generation.