PRACTICE MATERIAL FOR SPELLATHON

(GRADE 10)

1. Create an Educational Game

Task: Develop a game that teaches a specific subject (e.g., math, science) through interactive challenges.

Steps:

- 1. Design a backdrop and character sprites to guide players.
- 2. Use "ask" blocks to present questions or problems related to the subject.
- 3. Implement scoring with variables to track correct answers and provide immediate feedback.
- 4. Use "if" statements to check answers and trigger animations or sounds for correct/incorrect responses.
- 5. Add levels or stages that increase in difficulty as players progress.

2. Build a Chatbot

Task: Create a simple chatbot that can respond to user input with pre-defined answers.

Steps:

- 1. Choose a sprite to act as the chatbot.
- 2. Use "when green flag clicked" to start the interaction.
- 3. Implement an "ask" block for user input.
- 4. Use "if/else" statements to provide different responses based on keywords or phrases in the user's input.
- 5. Allow the conversation to continue until the user decides to end it.

3. Design a Personal Budget Tracker

Task: Create an application that helps users manage their budget by tracking income and expenses.

Steps:

- 1. Use variables to store total income, expenses, and balance.
- 2. Implement "ask" blocks to gather income and expense amounts from the user.
- 3. Use lists to keep track of each transaction.
- 4. Update the balance after each entry and display it on the screen.

5. Include features to show a summary of expenses and income at the end of the month.

4. Create a Memory Card Game

Task: Design a card-matching game where players find pairs of matching cards.

Steps:

- 1. Use sprites for the cards and create a grid layout.
- 2. Program the cards to show an image when clicked and hide when clicked again.
- 3. Use lists to store the card images and track matches.
- 4. Implement logic using "if" statements to check for matching pairs.
- 5. Keep track of attempts and display the score once all pairs are found.

5. Build a Virtual Escape Room

Task: Design a simple escape room game where players solve puzzles to "escape."

Steps:

- 1. Create multiple backdrops representing different rooms or stages.
- 2. Use sprites for interactive objects (e.g., keys, locks).
- 3. Implement "ask" blocks to gather inputs for solving puzzles (e.g., codes, riddles).
- 4. Use variables to track progress and inventory items.
- 5. Include "if" statements to change scenes or unlock items when puzzles are solved.