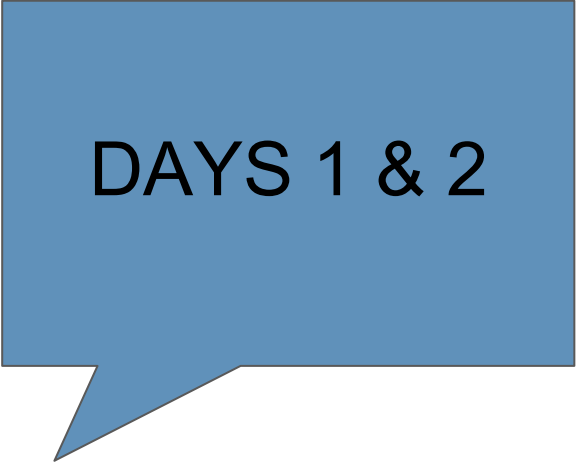
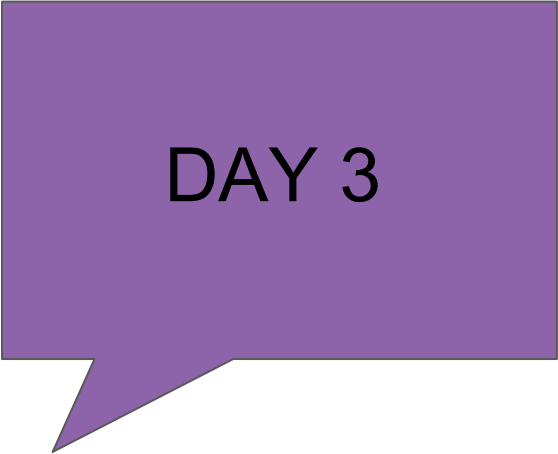


Maze Craze: Pick the Healthy Path!

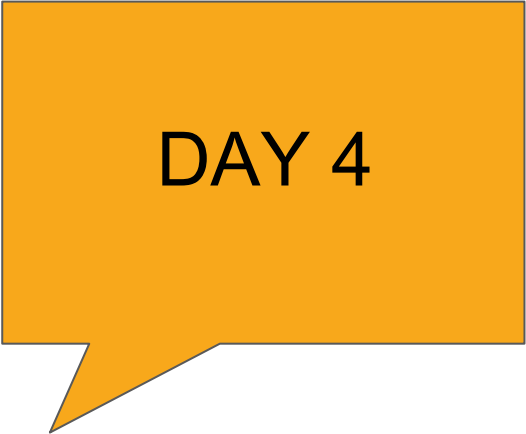
Index

A blue speech bubble with a black outline and a tail pointing towards the bottom-left.

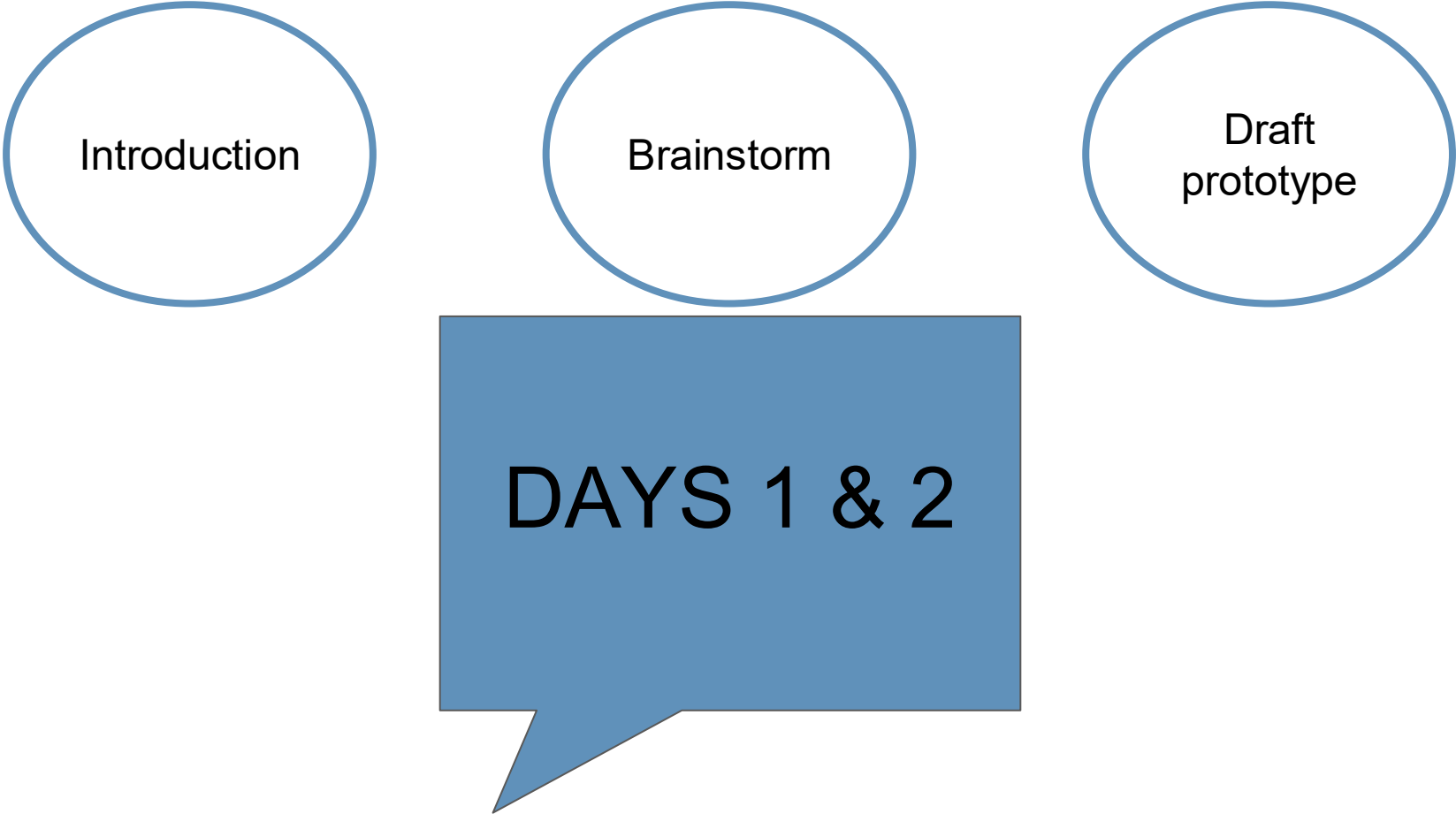
DAYS 1 & 2

A purple speech bubble with a black outline and a tail pointing towards the bottom-left.

DAY 3

An orange speech bubble with a black outline and a tail pointing towards the bottom-left.

DAY 4



Introduction

Brainstorm

Draft
prototype

DAYS 1 & 2

We have a problem!

- Type 2 diabetes can happen at any age.
- Come up with healthy and unhealthy choices.
- Think like a robotics or biomedical engineer.
- Problem solve.
- Design.
- Code smart machines.



Based on the information provided

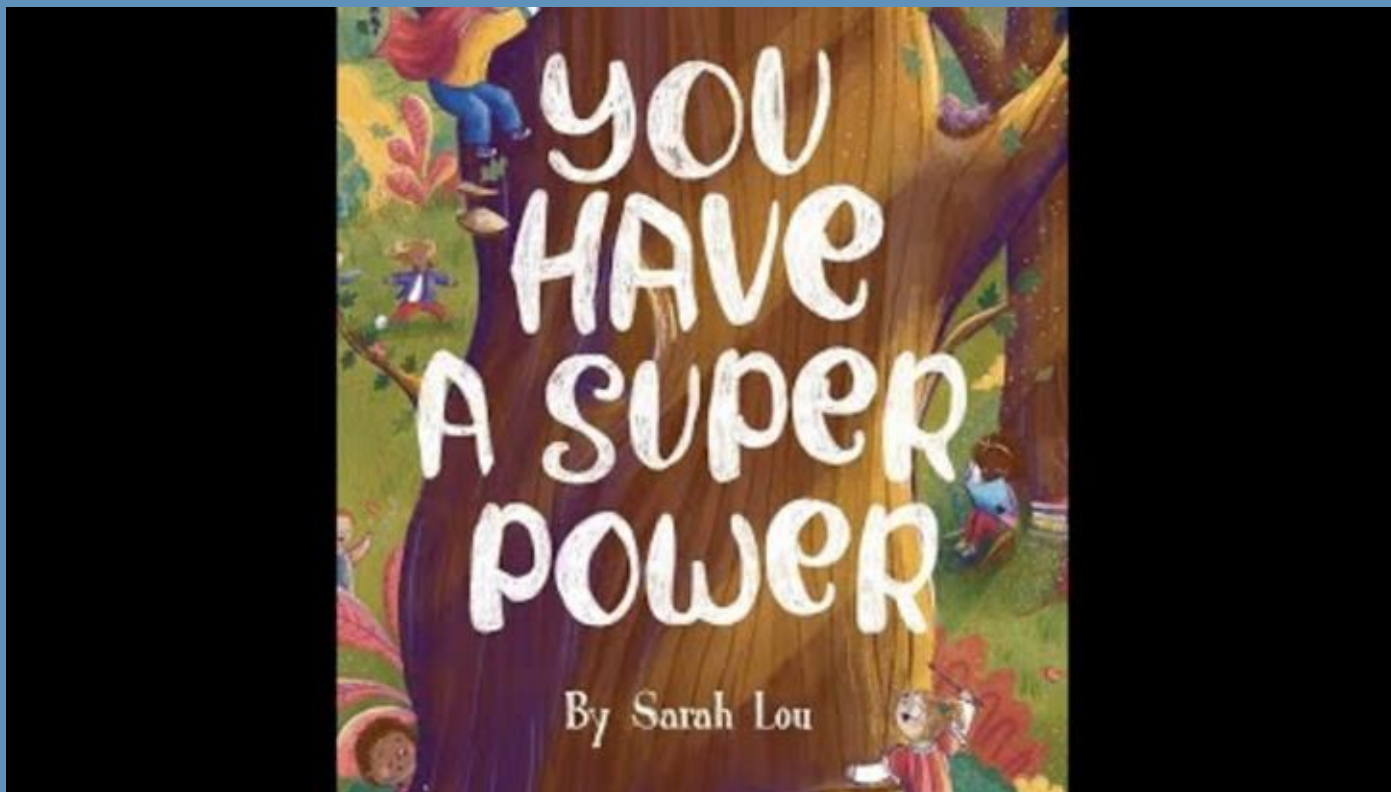
- What questions do you have?
- What do you need to know?
- What information is missing?

Pre-assessment!

1. *Answer the questions to the best of your ability.*
 - a. *Complete in 5 minutes.*
2. *Put pencil down when you are ready to share.*
3. *Sit silently until teacher direction.*

Story

[\(link\)](#)



What is diabetes?

[\(link\)](#)



Good News!

- Studies show that if you don't have diabetes, you can make healthy lifestyle choices to help prevent getting this disease and others!



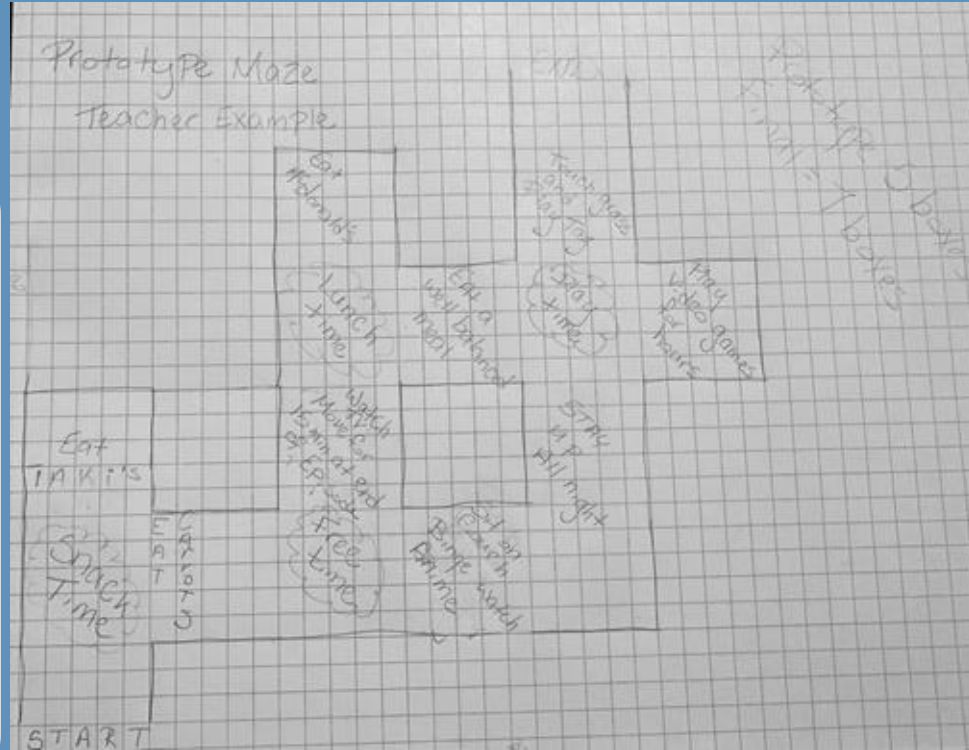
Let's Think

- What are some healthy choices people can make?
- What are some unhealthy choices people can make?

Expectations

- **Prototype Maze**

- Must have a start and an end.
- For every healthy choice there needs to be an unhealthy choice.
- Minimum 3 healthy choices and 3 unhealthy choices.
- Maximum 5 healthy choices and 5 unhealthy choices.
- The choices do not need to be drawn on the prototype but would be required on the final. This is a good time to decide what they would look like; tracing from a computer will not be an option.
- Must be approved by teacher before moving to final copy.



Expectations

● Final Maze

- Only one paper will be provided – all mistakes must be incorporated into design – problem solve.
- Recreate the **APPROVED** maze.
- Illustrations with labels must be drawn.

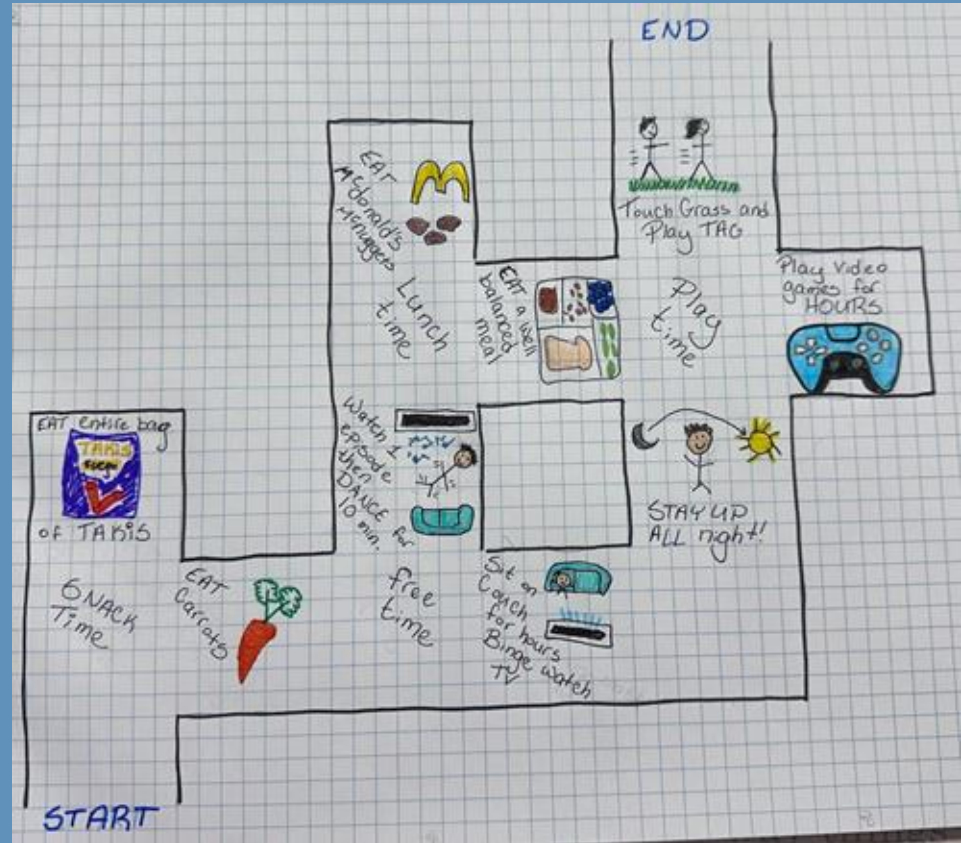


Image above: final maze, created in pencil, traced in marker, pictures added, 7x7 grid

Expectations

● Test Code

- Create a code you think the robot will follow to make it through your maze.
- Must start at your start.
- Must go through the healthy choices.
- Must end at your end.

● Final code

- Robot starts at “start,” correctly goes through the healthy choices, and ends at “end.”
- If there is time, you may see what features your robot has that could advance the experience as it travels through your maze.

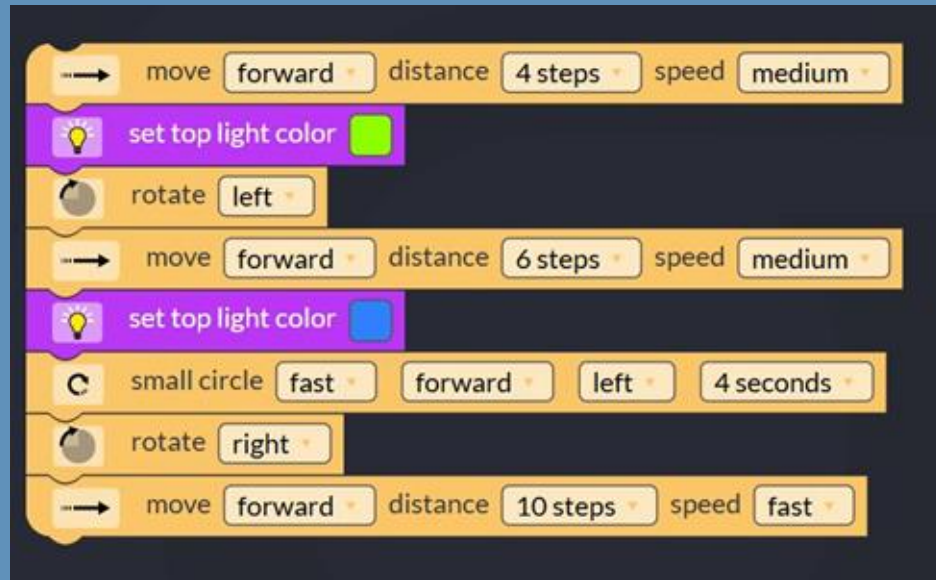
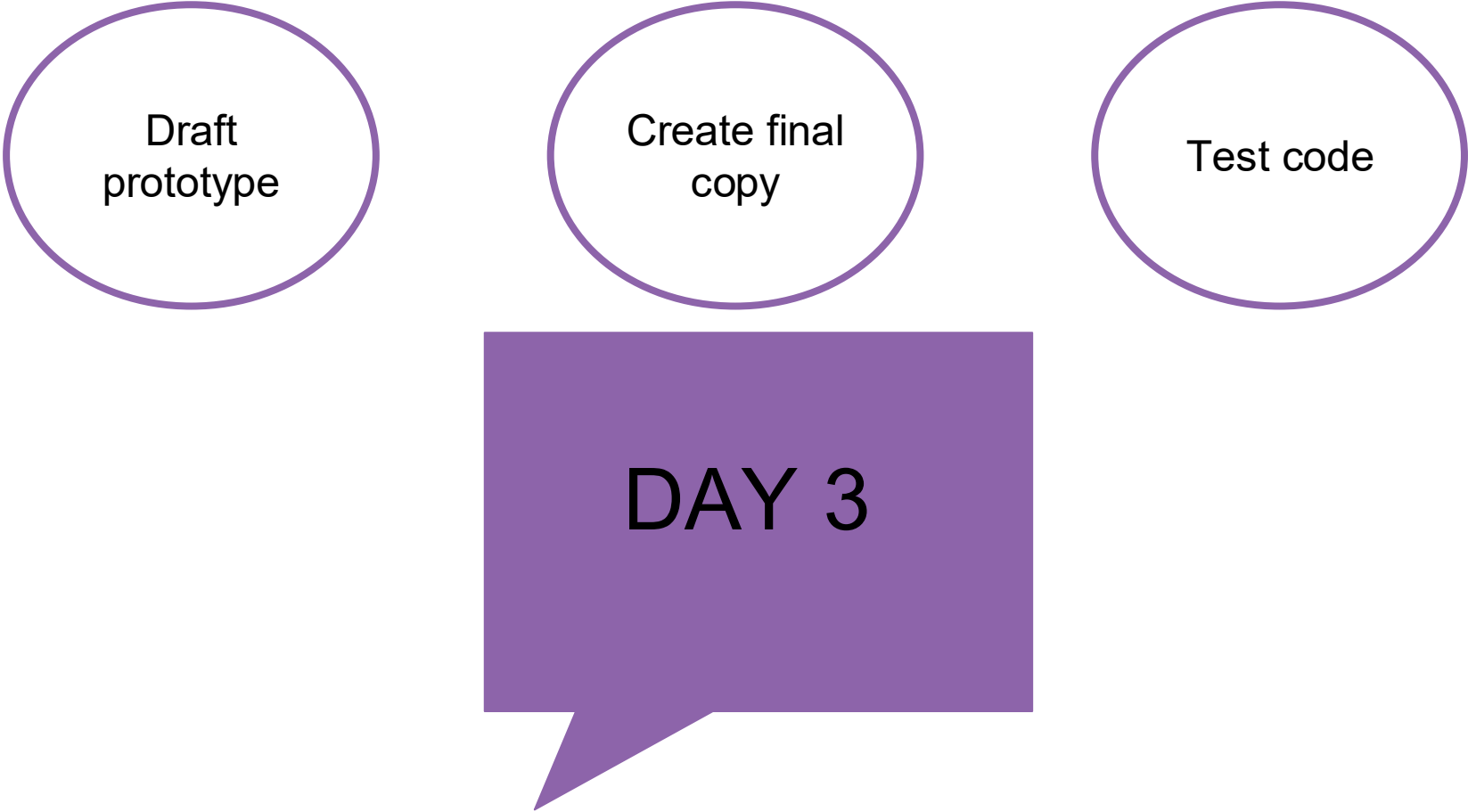


Image above: sample of code to get through maze

Start Prototype Maze

- **Prototype Maze**

- Must have a start and an end.
- For every healthy choice there needs to be an unhealthy choice.
- Minimum 3 healthy choices and 3 unhealthy choices.
- Maximum 5 healthy choices and 5 unhealthy choices.
- The choices do not need to be drawn on the prototype but would be required on the final. This is a good time to decide what they would look like; tracing from a computer will not be an option.
- Must be approved by teacher before moving to final copy.



Draft
prototype

Create final
copy

Test code

DAY 3

Expectations

1. Prototype Maze

- Must have a start and an end.
- For every healthy choice there needs to be an unhealthy choice.
- Minimum 3 healthy choices and 3 unhealthy choices.
- Maximum 5 healthy choices and 5 unhealthy choices.
- The choices do not need to be drawn on the prototype but would be required on the final.
This is a good time to decide what they would look like; tracing from a computer will not be an option.
- **Must be approved by teacher before moving to final copy.**

2. Final Maze

- Only one paper will be provided – all mistakes must be incorporated into design – problem solve.
- Recreate the **APPROVED** maze.
- Illustrations with labels must be drawn.

Expectations

- Test Code
 - Create a code you think the robot will follow to make it through your maze.
 - Must start at your start.
 - Must go through the healthy choices.
 - Must end at your end.
- Final code
 - Robot starts at “start,” correctly goes through the healthy choices, and ends at “end.”
 - If there is time, you may see what features your robot has that could advance the experience as it travels through your maze.

An orange speech bubble with a black outline and a tail pointing towards the bottom-left corner. The text "DAY 4" is centered inside the bubble.

DAY 4

Troubleshooting Code

- Run your code.
- Make adjustments for incorrect movements the robots make.
- Final code
 - Robot starts at “start,” correctly goes through the healthy choices, and ends at “end.”
 - If there is time, you may see what features your robot has that could advance the experience.
- Record observations throughout troubleshooting.

Keep in mind how far the robot travels based on the code provided, including:

 - Whether it traveled the correct direction.
 - Whether there are any changes you need to make.
 - Whether there are any measurements you might need to take.

Post Assessment

- Complete post assessment in workbook.
 - Answer in complete sentences.
 - Turn in workbook.

Discussion

- What did we learn?
- What was the best part?
- What was the worst part?