Creating "Maze Craze"

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This curricula has been designed as part of the Scalable Games Design project.
It was created using ideas from and portions of prior work completed by
Fred Gluck.

Vocabulary/Definitions

Action ....the requested behavior of an agent if the conditions are true

Agent ....a character in the game

Array ....a rectangular arrangement of agents

Collision ....the situation when two agents physically collide.

Condition ....the situation that must be 'true' for an action to occur

Depiction ....an image of the agent.

Student Handout 1A:

Basic Game

Initial Story: *The traveler will walk around on the ground surrounded by walls. The object of the game is to move next to the goal without moving next to one of the Chaser agents. If you reach the goal, the game ends happily. If you move next to an Chaser agent or vice versa before reaching the goal, the game ends unhappily.*
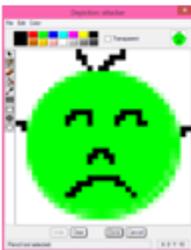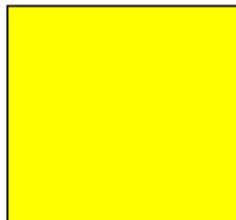
Create these Agents:
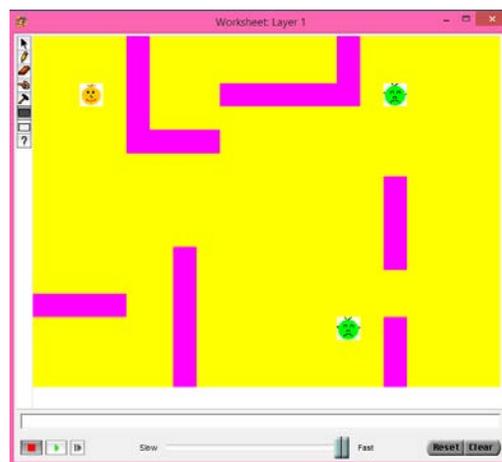
Me

Floor

Wall
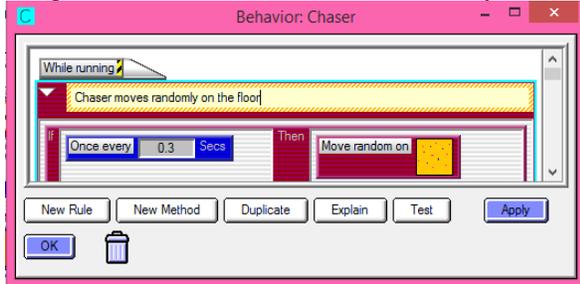

Goal

Attacker

Create this initial Worksheet:

Create the following BEHAVIORS for your agent:

Step 1: Chaser:
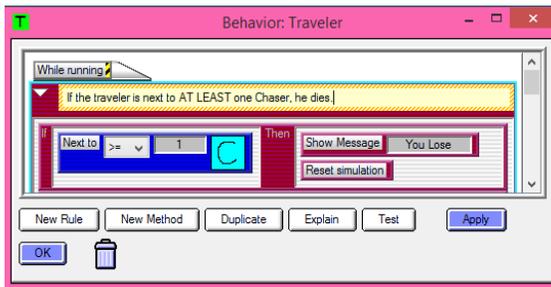Program the Chaser to move randomly on the floor.

Step 2: Traveler:
Set up your agent to move with the arrows (cursor control).
Create game ending conditions (collision).

> The box below shows how to end the game if your traveler approaches the chaser. Create a similar rule if your traveler approaches the goal.
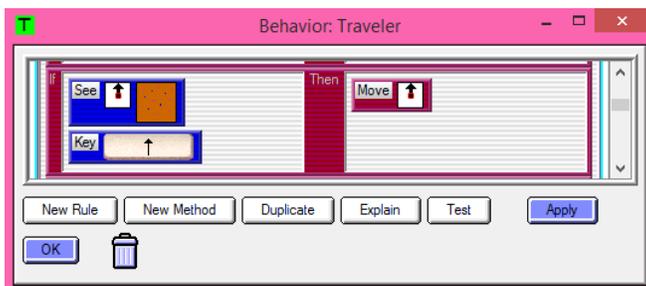
Be SURE to reset the game when it ends.

Step 3: Walls
Add walls to your worksheet. Then, prevent your Traveler from walking through the walls.

> Work with the person next to you to figure out how to prevent the Traveler from walking into a wall. Here is one way to think about it… challenge yourselves to find a different way.

Step 4: Don't allow the traveler to cheat!
Problem: Traveler can cheat by moving off the game ground. Talk with the person next to you about where and when this can happen on your worksheet.

Add rules that make a sound for attempted movement off the ground. Note the importance of rule order for the new rules. Here is an example to prevent the Traveler from moving right off the worksheet. What other direction limit will you need?
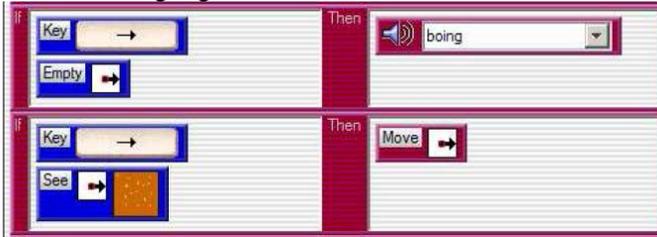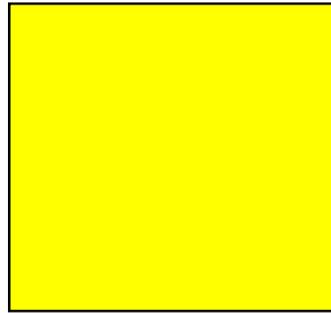
Student Handout 1C:
Agent Creation Models

Use these as quick starting points for your own agent. They don't have to look exactly like the model!

Me
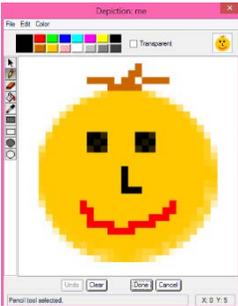
Floor

Wall

Goal

Chaser

Student Handout 2:

Maze Challenge

Before your start this challenge:

You must be have designed a fully functional Maze Craze Game

Design Challenge: By using a smaller agent size, more agents fit on the worksheet, making for more interesting games. Redo Maze Craze using an agent size of 16x16 instead of 32x32.

Maze-Crazy!

Give the game a real maze feel!

Redesign Maze Craze with smaller agents and a more maze-life feel. This one is pretty easy – we think you can make it even more challenging!