Lesson 3 - Student Activity #1 Guide

Modifying the Model

Your Challenge: Change the code to add copper nitrate agents to represent the missing chemical product from the model.

The reaction modeled is:
Aqueous silver nitrate added to solid copper will react to form solid silver and aqueous copper nitrate.
Chemical reaction: 2 $AgNO_3$ (aq) + Cu (s) ---> $Cu(NO_3)_2$ (aq) + 2 Ag (s)

Start with base model - StarLogo Nova base model: “silver nitrate and copper reaction”
Remix the base model and change its name to include your name and your partner’s name.

Reminder: Save and test your model every time you add a piece of code. Debug if needed. Save often.

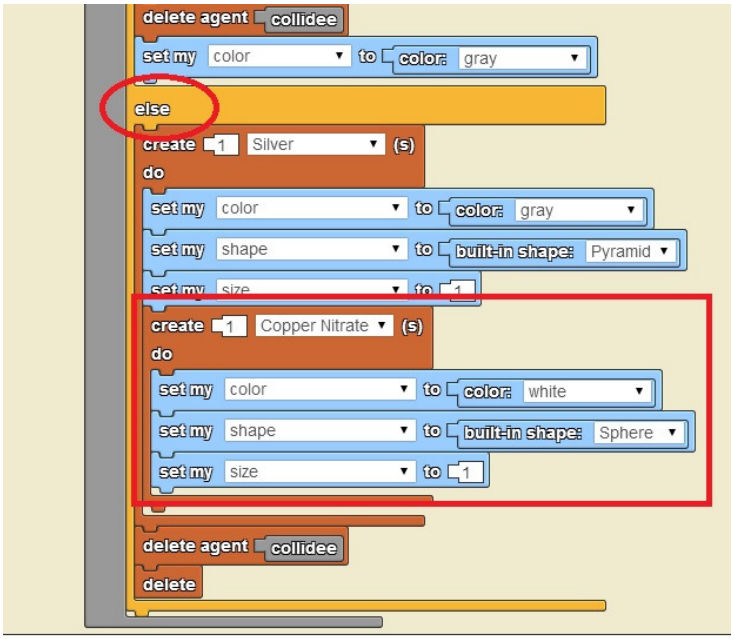
[Hints: (A) Add breed for new agent, (B) create agents inside a collision block, (C) give the agent some movement in water, since it is a soluble ionic compound.]

One solution to the Challenge:

A- Add the copper nitrate agent as a new breed.
Click on edit Breed. Click on add Breed. Name the breed 'copper nitrate". Exit edit breed.

Is there a new page/tab in Workspace now that they created copper nitrate breed?

B- When "gray" copper collides with silver nitrate, copper nitrate is created.
Give the copper nitrate agent the following traits:
Shape is sphere, color is white and size is 1.



Where is the correct location of this procedure? Why?

C- Add movement to copper nitrate: copy and paste Wiggle Walk procedure from water page or silver nitrate page to the copper nitrate page.
To copy, with the mouse clicked, drag a box over the piece of code you want to copy, and click on the copy button under the drawers.