

Seeing a Virus Spread

This is a very simple world. You can imagine the creatures to be anything that you want.

Only three rules control the world:

- Healthy(green) and infected(blue) creatures move around randomly on the grey areas that you paint.
- A healthy creature next to an infected creature has a 5% chance of becoming infected itself.
- None die, and there is no chance of recovery.

Possible explorations

- ◇ Press play and watch.
 - Can you describe what happens?
 - Can you explain this in terms of the rules?
- ◇ Stop the simulation.
- ◇ Clear the world from the worksheet
 - Click on the rubber, then drag over the worksheet to rub out
- ◇ Paint two separate areas in grey
 - Click on the grey item from the gallery
 - Click the pencil or the filled rectangle from the toolbar
 - Drag over the worksheet area to fill)
- ◇ Put lots of healthy creatures in one, only a few in the other.
 - Click on the green item in the gallery
 - Click the pencil from the toolbar
 - Click on the worksheet to place each creature or drag to place lots.
- ◇ Set the simulation running. Watch the healthy creatures enjoy their world.
- ◇ Add a few infected creatures to each area
 - Click on the blue item in the gallery(infected specimen)
 - Click on the pencil tool
 - Click on a grey area in the worksheet to place them
 - How does the infection spread through the two populations?
- ◇ Try again, this time putting the infected specimens in different places.
- ◇ Now you might try different shaped areas, different populations densities, different arrangements of creatures. Prepare an account of what is happening for each of your experiments.