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## **Far Far Away Forest Simulation**

## **Model Description:**

This model showcases a simulation between frogs, princes, princesses, and witches. When frogs are kissed by princesses, there is a percent chance of the frogs turning into princes. When princes touch a sleeping beauty, there is a percent chance of the sleeping beauty awakening. When a witch touches a princess, there is a chance that the princess will fall asleep. When a witch touches a prince, there is a chance that the prince will turn into a frog.

This model takes place in an enchanted forest. Many of the features can be manipulated with the input boxes in the model.

## How to run the model:

- 1. Set the starting number of each object using the input boxes.
- 2. Click the "Play" button and watch what happens
- 3. You can "Stop" the model by pressing the two lines once; this effectively pauses the simulation. To start again press the green triangle once.
- 4. There is also a "Step" button that can be used to skip through one time step of the simulation.

## **Model Functions:**

- I. Buttons
  - A. Start Runs the model
  - B. Stop Stops the model
  - C. Step Acts in a similar way to the Start button, but only moves one time step
- II. Input Boxes
  - A. Number of Starting Frogs Starting Frog count
  - B. Number of Starting Princesses Starting Princess count
  - C. Number of Starting Princes Starting Prince count
  - D. Number of Starting Witches Starting Witch count
- III. Slider
  - A. Adjust the speed of the Model