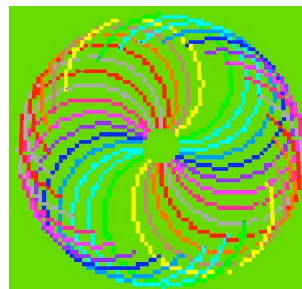# Introduction to Starlogo TNG- Painted Turtles

For this activity, new learners of Starlogo TNG will learn how to use Setup and Forever blocks and create a simple program in which the agents alter the environment by making a design in Spaceland.

Setup Block- goes in the Setup column and is used to create the agents that will be on the Spaceland and give them the initial placement and characteristics. In this case, when the Setup button is pressed, it will clear everything in Spaceland, then place 30 turtles in a circle that will then take 5 steps forward. After this, the turtles' 'pen' is down meaning that the turtle will leave a colored trail behind it.

Forever Block- goes in the Runtime column. Items that connect to this block give the action to the agents that will continue on until the Forever block is turned off. In this example, when the Forever button is turned on, the turtles will move 3 steps forward, then turn 10 degrees to the left. This will continue on and on until the button is turned off. Below is a picture of what Spaceland will look like and the pattern that the turtles are creating.

Now try making your own patterns by changing the number of turtles and how they move. Experiment with other blocks in the Movement and Terrain drawers.