

Guidelines for Teachers - Activity 4: Draw a Frame

Description:

This activity involves the creation of a frame using a square. After which, a second frame will be created with a shape of the student's choice.

Objectives:

Upon completion of this activity, students should be able to:

1. Draw a row of squares
2. Draw a frame
3. Use problem solving skills

Student's Prerequisites:

- Familiarity with StarLogo TNG software

Student's Task:

1. Draw one square.
2. Draw the horizontal side of the frame.
3. Draw the vertical side of the frame.
4. Use created procedures to draw the final frame.

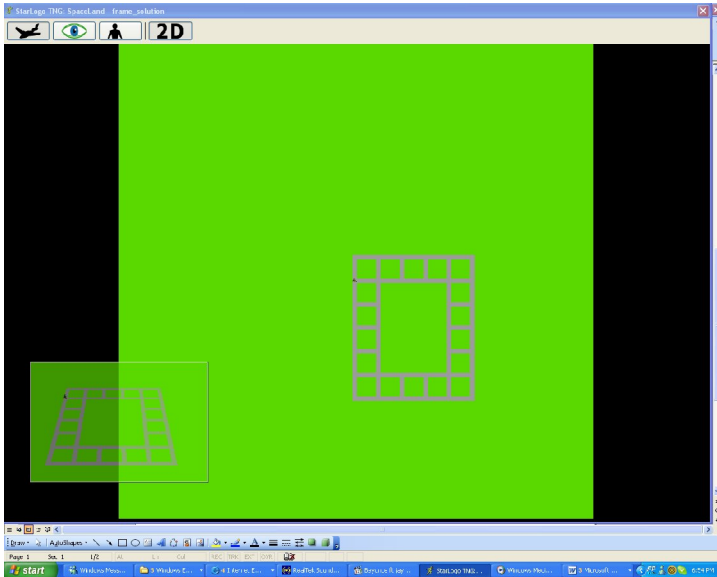
Lesson:

Before students start individual/pair work:

1. Illustrate use of blocks not encountered previously
 - *repeat* programming block
 - Concept of modularity
 - Concept of Reflection/Rotation

Allow students to work on producing the first square frame independently. If they have problems starting and proceeding further, work out producing the square frame or part of the square frame with the whole class. Introduce the idea of modularity. After which,

they can figure out how to produce another frame with a shape of their choice independently. A screen shot of the square picture frame is shown in the next page.



This activity allows students to hone in on their problem solving skills. It also involves students using modularity in their programming. Students will also greatly benefit from pair work as they can learn and teach each other multiple solutions to the same problem.