



The SPIRIT Project

Educational Robotics

Lesson Building Block Template

Author: Allison Temple _____

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Directions: Directions: Definition of a Lesson Building Block: This is a “Lesson Building Block” from the SPIRIT educational robotics institute. A ‘lesson building block’ is in essence an educational activity that might be later turned into a more formal classroom lesson by a creative teacher. The SPIRIT Institute is striving to put a variety of “lesson building blocks” up on the web for the potential use of teachers as they try to prepare more formal educational lessons using the TekBot robotics platform.



I. Concepts (Give a list of one or more concepts that might be taught using this activity)
To encourage students to think, create, and test different ways to compare TekBots.

II. Standards: (Standards for Technological Literacy)

: (Omaha Public Schools Science 01/02) Examine problems using scientific in science experiences, inquiry and to integrate unifying concepts and processes

III. Learning Activity Context (Describe the overall context for the learning activity)

I. Learning Activity

a. Context: Moving TekBot; Engineering/Notebook

b. Abstract: “Think it, Create it, Test it”

- i. Each group of students will think of different ways to compare their TekBot to other groups’ TekBots.
- ii. Each group will choose one way to compare the TekBots and create the test (i.e. Maze, race, etc.). The group will need to create step by step directions for the other groups to follow (including directions on what and how to measure and document).
- iii. Each group will test their TekBot in the different testing situations and document their results according to the set of directions.
- iv. All the documentation will be given to the original group and that group will analyze (what is the group’s conclusion of the test; how could they change their test/directions to improve it) and report/express it.

IV. Teacher and Student Suggestions/Tips

c. Pre-teach:

- i. Brainstorming—ideas to get started; are all ideas “okay”
- ii. Creating directions for others to follow
- iii. How to analyze data
- iv. Different ways to report/express data

V. Teacher Questions

VI. Assessment Ideas

(Give an idea or two about how the lesson activity might be assessed)

1. Create a rubric so the students know the expectations.



VII. Other Information

(Give any other information that might be useful or a visual or two)

VIII. A materials list