|  |  |  |
| --- | --- | --- |
| **UNIT2** |  |  |

**Lesson #13-14: Linear and Binary Search Algorithms**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Overview** *Introduce the differences between linear and binary search algorithms***Lesson Summary*** *Set the stage that they are a construction company and that money is not an object but speed is the main concern*
* *Demo how their stack equipment works on the board for a 10 floor building*
* *Competition element - the group that has the lowest time frame and the best explanation and modeling of the building process(With any resources they choose ex. Legos, animation, powerpoint, poster paper, oreos) gets the contract – oreo cookies or chosen payment for their services rendered.*
* *Model how binary search engines works in an alphabetical line and how linear searches in a linear line when looking up the word zebra and demo which search would be faster and how the building concept relates to the search algorithm.*

**CS Content** *The description and modeling of the linear search algorithm and the binary search algorithm.*  |  |  | **Objectives****Students will be able to:*** Describe the linear search algorithm
* Describe the binary search algorithm
* Explain under which conditions each search algorithm might be used.

**Materials and Prep*** Computer
* Internet
* Poster paper
* Blocks
* Construction paper
* Power point
* Small stackable objects

**Resources****Student Documents*** Diagram, picture or model of student’s construction of the tower

**Video*** <https://www.youtube.com/watch?v=D5SrAga1pno>

**Assessments*** Gallery walk
* Submitted proof of build time

**Notes**

|  |
| --- |
|  |

 |