**Linear Searching**

Instructional Days: 1-2 days

Topic Description: Students will be exposed to the idea of searching and its importance. They will then explore the linear searching algorithm through an activity.

# Objectives:

The student will:

# Learn how companies such as Google use searching algorithms

# Discuss how they use searching in their everyday lives

# Learn what the linear searching algorithm is and when to use it

# Outline of the Lesson and Teaching Strategies:

# Introduce the idea of searching (5-10minutes)

* Watch “The Google Search Engine” video
* Talk about the “Video Discussion” questions as a class
* Make sure students understand that searching is a common activity in everyday life

# Complete the “Intro to Linear Searching” activity (15-20 minutes)

* Have students complete the activity in pairs
* Make sure students understand how to the activity works before starting
* You may want to go over the directions to the activity as a class before letting the students pair up
* Discuss the activity as a class by answering the “Activity Discussion” questions
	+ Make sure students can articulate the method they used to find the card

# Formally introduce linear searching (10-20 minutes)

# Talk about the material discussed in the “Linear Searching” section

* Watch the Linear Searching video
	+ Make sure all the students understand what linear searching is, when to use linear searching, and how linear searching could have been used in the activity.
* Talk about the “Linear Searching Wrap Up”

# Mention applications of searching (5 minutes)

* Reading the information in the “Searching in Technology” section
* Watch the “Siri vs. Google Voice Search” video
* Explain how Google Voice Search may run faster because it might have a better search algorithm

Resources:

* All the resources including the worksheets are available on the Searching Overview page of the muddX website