



## 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 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

## Lesson Plan: Linear Searching

- 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