Topic: text, text, text (arrays, functions, strings)

Approach: Build CGI programs, then build the tools they use

Overview and Intro
Basic Operation of Web Communication
  Connect, Request, Act, Reply
Basic parts of a cgi application: form, connector, script, tools

CGI Example
stationnames - no form needed

Improving Our Website
Clearer - use hyperlinks to make access to tools as text
Robust - Reduce user error with radio buttons
Flexible - Add choices with radio buttons
Summary: (1) Hyperlinks, (2) radio buttons, (3) if..then..

C Data Types and Structures
C has only the basic types the machine supports: int, float, char, pointer
Only three types of aggregate storage: array, struct, union
No data types hide any internal structure

Array Basics
What
Operations: Creating, Indexing, Initializing
Note: a multi-dimensional array IS an array of arrays
Arrays and Functions: always pass by reference
example: array-func-demo.c

String Basics
A string is an array of chars with a '\0' to mark end
One works with strings using functions

Data Cleaning/Analysis Tools
count_semis: print semi count, line number, line
fix_sched_order: put fields in expected order
operations needed:
  read in a line
  split into fields
  search/compare strings
  output a string

String Programming
Inherits from array
Input/Output has special methods
writing splitline
using splitline
writing readln
using readln