Lesson 2: Using Arrays for Cool Stuff

1. (5 minutes)   
   Run the game *What’s the Maximum Value.py* several times, until you can guess the right answer every time. The game will flash a sequence of 10 random numbers on the screen, and at the end, you have to guess which of the 10 numbers you saw was the biggest.
2. (5 minutes)   
   Study the code of *What’s the Maximum Value.py* and figure out how *the program* determines its own right answer. The idea is that it keeps track of the highest number seen so far, and then the program updates that value the next time a bigger number comes along.
3. (10 minutes)   
   Using what you learned from the code in *What’s the Maximum Value.py* , do Challenge D in *Array Challenges Part 2.doc*. Instead of generating a sequence of random numbers like the game did, your for-loop will just go through the array of temperatures one element at a time.
4. (5 minutes)   
   Run the program *Search and Replace.py*. Figure out how it works. Then try different sentences and different replacement words.
5. (10 minutes)  
   Run the program *Removing items from an array.py*. Figure out how it works.   
   Then do Challenge E in *Array Challenges Part 2.doc*.  
     
   Extra challenge for the true coding geek: Instead of 3 separate for-loops to determine   
   1st, 2nd, 3rd place, make a nested for-loop that ranks all of the race-times from fastest to slowest.
6. (30-40 minutes)  
   Do Challenge F. Have fun with this one! Try to stump your friends. Take each other’s quizzes.  
     
   Extra challenge for the true coding geek: Add a fourth array that contains hints for each question in the quiz. If the user types “hint” for his/her answer to a question, display the hint for that question and then let the user guess the answer.