**Introduction to Computer Science**

**Lesson: # Unit:**

**Teacher: Laks Periods:**

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| Aim: How do we write a program that accepts user input?  SWBAT write a program that takes user input | | Standards: |
| Vocabulary:  User Input | | Grouping:  Pairs |
| 5 min | Do Now:  Write down a number from 1 to 25. Have your partner guess your number. Take turns guessing each other’s numbers. Find the difference between your partner’s guess and your answer.  This activity is done in pairs. | |
| 8 min | Mini-Lesson:  In many programs, we want the user to enter information that we can use in the program. This information is called “input.” Question: if the do now activity was a program, what would represent the user input? Call on a student to answer. Your partner’s guess would be the user input.  In order to accept user input in a file in java, we need to first import a Scanner to read the input using the statement “import java.util.Scanner;”. Then we create a scanner to take in the input. We can use a statement like “Scanner in = new Scanner(System.in);” to take our input. Then we can print a question for our user, i.e, “System.out.print(“How old are you? ).” We use a variable to store the input “int age = in.nextInt();”. The user input can now be used in the program. | |
| 7 min  20 min | Activity:  Guided Practice: Together we will write a program that asks users how many siblings they have and then repeats back to the user how many siblings they have.  Independent Activity: Exercise 4 from section 3.12 in *Think Java 1st Ed:* Students will work in pairs to write a program to guess a random number and then compare that guess to the random number.  “Write a program that asks a user to input a number. Program the computer to generate a random number. Compute and display the difference between the user’s guess and the number that was generated.”  Note: to generate a random number from 1 to 100, use the code:  Random random = new Random();  int number = random.nextInt(100) + 1; | |
| 5 min | Summary:  Share your program with another group and have them try to guess your number. | |
| Checks for Understanding:  Does the program run? Circulate as students are working and see if the programs run. | | |