* **WHJ ADVANCED : LESSON OUTLINE**
* **Cover Sheet**

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| **Chapter Name** | Conditional Programming |
| **Grade Level** | Grade 7 |
| **Task Category** | Video Lesson |
| **Demography** |  |
| **Quest Code** |  |
| **Quest Name** | Conditional Programming |

* **Pedagogy for Lesson**

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| **What do kids already know before?** | * Algorithm * Command * Variables * Decision statements |
| **Primary Takeaway** | > Importance of conditional loop  > Use conditional loop for repeated process until a certain condition occurs  . |
| **New target vocabulary** |  |
| **Content breakdown** | * Establish the need for the concept - hook * Define the concept * Unique factor about the concept * Break down the parameters of the concept * Variation of the concept * How it is executed by the computer * Applications * Closure |
| **Core Ideas (Lesson)** | //Hook  Just Imagine you are listening your favorite song on repeat mode and the song should be repeated until you turn off the repeat mode. Then only you can hear the next song.so it is a loop which continuous until you turn off the repeat mode. This loop ends only when satisfying any condition that is turn off the repeat mode.    So conditional loops helps us to repeat a process until reaches certain conditions. Without condition the process continuous infinitely and we cannot manage the flow of program.  Now we can check real time scenario of conditional loop,  To unlock our mobile phone we should give the password correctly. Otherwise it will show “wrong password” and keep asking user to enter their correct password until they enter the wright one. Here the process end only when get the correct password.  C:\Users\acer\Downloads\WhatsApp Image 2021-09-02 at 3.28.21 PM.jpeg  There are some sort of conditional loops upon certain conditions.   * If I switch on the laundry machine and set time to 30 minutes then the laundry machine will only stop until reaches 30 minutes * If I switch on the fan   It works contineously until power goes out.  C:\Users\acer\Downloads\WhatsApp Image 2021-09-02 at 3.29.17 PM.jpeg  // Define  A loop is used for executing a block of instructions or statements repeatedly until a particular condition is satisfied. This is called conditional loop.  It is like when we tell the computer,   * When condition is satisfied   {  Do this first  Do this second  Do this third  }  Here the execution is continuous until the condition become false.   * {   Do this first  Do this second  Do this third  }  Until the condition is satisfied  In a loop group of statements are executed. We tell the computer to run a loop if certain condition is true.  // Unique factor about the concept  Conditional loops helps to repeat something while a certain condition is satisfied or true.  If the condition is always satisfied the loop is become infinite if the condition starts of false the code in the loop will never run.  Why conditional loop important in program?  Looping simplifies the complex problems into easy ones.  It enables us to alter the flow of the program so that instead of writing the same code again and again, we can repeat the same code for finite number of times. Just like multiplication which is a continuous addition.  // How it is executed by the computer  Imagine we are writing a program to determine the mobile password is correct or not.  C:\Users\acer\Downloads\WhatsApp Image 2021-09-02 at 4.20.13 PM.jpeg  The loop will continuous until the condition is satisfied. Depending on the user given password the condition is set either it is true or false.  If password is incorrect it executed infinite.  // Variation of the concept  Depending upon the position of a conditional statement in a program looping statement classified into 2,   * Entry controlled loop * Exit controlled loop   In some situations the condition is checked before executing the body of the loop. This type of loop is called entry controlled loop.  The above flow chart shows the working of entry controlled loop.  Examples like, We can only board the plane we have air tickets  In some situations the conditon is checked after executing the body of the loop. This type of loop is called exit controlled loop. This loop executes the body of loop executes atleast once.  We can buy things then last only pay the cash in the supermarket.  // types of conditional loop  Entry controlled loop are :   * While loop * For loop   While loop is the simplest looping structure.  We have to execute some statemnts repeatedly as long as certain condition becomes true. .  While(condition)  {  statement  }  Here the condition is true then only execute the statement.   * If heavy hot climate   The automated air cooler automaticaly on.  For loop is the most powerful loop.  It can perform complex task.  For(initialization;condition;inc/dec)  {  Statement  }  Exit controlled loops are:   * Do while loop   Do  {  Statement  } While(condition);  //Parameters  This statement has the following parameters:   * Initialization- specifying an initial value to assign to it. * Condition - This condition is tested to determine * //Conclusion   Conditional loop keeps repeating until a specific condition is met.it make easy our process. Two types of looping are used entry controlled and exit controlled these are used depend upon the situation occur the execution of the loop. |
| **Suggested Examples (Concrete)** | Included in the core ideas itself. |
| **Suggested Examples**  **(Abstract)** |  |
| **Higher-Order Thinking [Optional]** |  |
| **Additional Reading** |  |