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| Weekly Lesson Plans | |
| Day 1 | **Learning Targets:** Students will be oriented on classroom routines, rules, course expectations, and standards. Powerpoint on Classroom Management, Syllabus & Standards, and routines for lesson plans. Introduce the webpage and C-Tech curriculum.   Introduce the C-Tech Images placed on the Y:Drive for aethetics use during personal presentations. |
|  | Introduction to the Tier Model, Review of Telecommunication, Copper-Based Systems, and Fiber Optics.  Students will use the Internet to research the history of each, explain the evolution of rudimentary terms, and how each of these systems affect them today in school, work, and at home. |
|  | **Tier I**  Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB). Today's Lesson is about the Characteristics if the ITB itself.    Students will read the preface, introduction, table of contents, and pages I-0 through I-5 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht1 and CablingTier1Mod1Wrksht2 into their MyDocument > NetworkCabling folder.  Students will then complete the two worksheets on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht1Lname |
|  | Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB). Today's Lesson is about the Characteristics if the ITB itself.    Students will read the preface, introduction, table of contents, and pages I-0 through I-5 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht1 and CablingTier1Mod1Wrksht2 into their MyDocument > NetworkCabling folder.  Students will then complete the two worksheets on their own with the help of the text and the ITB model.  The files will be named  CablingTier1Mod1Wrksht2Lname |
|  | Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the Source, Types of Wire, Parts of Connections.  Students will read the preface, introduction, table of contents, and pages I-6 through I-9 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht3 and CablingTier1Mod1Wrksht4 into their MyDocument > NetworkCabling folder.  Students will then complete the two worksheets on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht3Lname |
|  | Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the Source, Types of Wire, Parts of Connections.  Students will read the preface, introduction, table of contents, and pages I-6 through I-9 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht3 and CablingTier1Mod1Wrksht4 into their MyDocument > NetworkCabling folder.  Students will then complete the two worksheets on their own with the help of the text and the ITB model.  The files will be named  CablingTier1Mod1Wrksht4Lname  Correct Worksheets 1 through 4. |
|  | **YouTube** Video:  *Lan Tester with RJ11 ports*  Correct CablingTier1Mod1Wrksht1Lname, CablingTier1Mod1Wrksht2Lname, CablingTier1Mod1Wrksht3Lname, and CablingTier1Mod1Wrksht4Lname.  Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the fundamentals of the three 66 Terminating Blocks on the ITB  Students will read the preface, introduction, table of contents, and pages I-10 through I-13 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht5 into their MyDocument > NetworkCabling folder.  Students will then complete the worksheet on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht5Lname and email them.   **YouTube** Video:  *RJ11 and RJ45 66 Blocks* |
|  | Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the fundamentals of the 110 Terminating Blocks on the ITB, Patch Panels, and Faceplates.  Students will read the preface, introduction, table of contents, and pages I-14 through I-17 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht6 into their MyDocument > NetworkCabling folder.  Students will then complete the worksheet on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht6Lname and email them. |
|  | Correct Worsheets 3-5.  Continue working on Worksheet 6 and submit |
|  | Correct CablingTier1Mod1Wrksht5Lname and CablingTier1Mod1Wrksht6Lname.  Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the fundamentals of the Coax Cable System and Fiber Optic System, .  Students will read the preface, introduction, table of contents, and pages I-18 through I-19 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht7 into their MyDocument > NetworkCabling folder.  Students will then complete the worksheet on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht7Lname and email them. |
|  | Continue to work on worksheet 7 and turn it in.  Correct CablingTier1Mod1Wrksht7Lname.  Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the fundamentals of what we have learned so far and will include Activity 1.1  Students will review the preface, introduction, table of contents, and pages I-1 through I-19 and worksheets 1 through 7.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht8Activity1.1 into their MyDocument > NetworkCabling folder.  Students will then complete the worksheet on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht8Activity1.1Lname and email them. |
|  | Correct CablingTier1Mod1Wrksht8Lname.  Learning Target:  Now we are going to integrate technology by using Activity 1.1's worksheet to help your class build a game.  Your choices are building clones of "*Jeopardy*", "*Who Wants to be a Millionaire*?", or "Wheel of Fortune".  This will be a class project.  Every student will provide their input to one person who will be elected to be the Master of Ceremony during the game.  The class will be expected to help build the game on the MC's computer.  Some characteristics of each game:  Jeopardy:  Initial object in the form of a statement, Solution in the form of a question, Categories in Columns, Rows with increased skill levels, Daily Double, Double Jeopardy, Final Jeopardy.  Millionaire:  Questions increase in skill level and directly related to points,  Answers in multiple choice, Life Lines involve Phoning a Friend, 50/50, and Polling the Audience.  Fortune:  Guessing Consonants, Buying Vowels, Spinning Wheel, Points tied directly to skill level, include bankrupt and losing turns, and solving puzzle.  The final product will be named something like this **CablingTier1Mod1Game1Jeopardy.**  Play the game. |
|  | Finish the game.  Learning Target:  **Module I: The Interactive Physical Layer:** In this module students are continued to be introduced to the basic telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Today's Lesson is about the different Color Coded Systems with our focus on the Green System.  Students will read the preface, introduction, table of contents, and pages I-21 through I-23 in pairs.  Each student will go the the Y:Drive > Mr Liesinger > Network Cabling > and copy and paste worksheets CablingTier1Mod1Wrksht9 into their MyDocument > NetworkCabling folder.  Students will then complete the worksheet on their own with the help of the text and the ITB model.  The files will be named CablingTier1Mod1Wrksht9Lname and email them. |
|  | Correct CablingTier1Mod1Wrksht9Lname.  Learning Target:  **Module I: The Interactive Physical Layer (Green System):** In this module students are continued to be introduced to the basic  or individual telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Students will break into pairs.  Students will go to the ITB Board.  One Students will read pages I-24 to another student while that other students will follow each path by hand.  Students will then switch places repeat the step above of reading and following the individual system by hand.  This will take the place of Activity 1.2 Signal Tracing on page I-30.  Each group will develop a separate Quiz Key and Quiz for each color group. Use the worksheet provided on the Y:Drive as a guide.  Pictures and diagrams are available off the C-Tech disk upon request.  The Green group will label their quiz assignment CablingTier1Mod1Wrksht10 and their key assignment CablingTier1Mod1Wrksht10Key. |
|  | Correct CablingTier1Mod1Wrksht10Lname.  Learning Target:  **Module I: The Interactive Physical Layer (Red System):** In this module students are continued to be introduced to the basic  or individual telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Students will break into pairs.  Students will go to the ITB Board.  One Students will read pages I-25 & I-26 to another student while that other students will follow each path by hand.  Students will then switch places repeat the step above of reading and following the individual system by hand.  This will take the place of Activity 1.2 Signal Tracing on page I-30.  Each group will develop a separate Quiz Key and Quiz for each color group. Use the worksheet provided on the Y:Drive as a guide. Pictures and diagrams are available off the C-Tech disk upon request.  The Red group will label their quiz assignment CablingTier1Mod1Wrksht11 and their key assignment CablingTier1Mod1Wrksht11Key. |
|  | Correct CablingTier1Mod1Wrksht11Lname.  Learning Target:  **Module I: The Interactive Physical Layer (Blue System):** In this module students are continued to be introduced to the basic  or individual telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Students will break into pairs.  Students will go to the ITB Board.  One Students will read pages I-27 to another student while that other students will follow each path by hand.  Students will then switch places repeat the step above of reading and following the individual system by hand.  This will take the place of Activity 1.2 Signal Tracing on page I-30.  Each group will develop a separate Quiz Key and Quiz for each color group. Use the worksheet provided on the Y:Drive as a guide.  Pictures and diagrams are available off the C-Tech disk upon request.  The Blue group will label their quiz assignment CablingTier1Mod1Wrksht12 and their key assignment CablingTier1Mod1Wrksht12Key. |
|  | Correct CablingTier1Mod1Wrksht12Lname.  Learning Target:  **Module I: The Interactive Physical Layer (Black System):** In this module students are continued to be introduced to the basic  or individual telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Students will break into pairs.  Students will go to the ITB Board.  One Students will read pages I-28 to another student while that other students will follow each path by hand.  Students will then switch places repeat the step above of reading and following the individual system by hand.  This will take the place of Activity 1.2 Signal Tracing on page I-30.  Each group will develop a separate Quiz Key and Quiz for each color group. Use the worksheet provided on the Y:Drive as a guide. Pictures and diagrams are available off the C-Tech disk upon request.  The Black group will label their quiz assignment CablingTier1Mod1Wrksht13 and their key assignment CablingTier1Mod1Wrksht13Key. |
|  | Correct CablingTier1Mod1Wrksht13Lname.  Learning Target:  **Module I: The Interactive Physical Layer (Orange System):** In this module students are continued to be introduced to the basic  or individual telecommunication systems and the physical layer components that are present in the field of telecommunications through the use of the Interactive Telecommunications Board, (ITB).  Students will break into pairs.  Students will go to the ITB Board.  One Students will read pages I-29 to another student while that other students will follow each path by hand.  Students will then switch places repeat the step above of reading and following the individual system by hand.  This will take the place of Activity 1.2 Signal Tracing on page I-30.  Each group will develop a separate Quiz Key and Quiz for each color group. Use the worksheet provided on the Y:Drive as a guide. Pictures and diagrams are available off the C-Tech disk upon request.  The Orange group will label their quiz assignment CablingTier1Mod1Wrksht14 and their key assignment CablingTier1Mod1Wrksht14Key. |
|  | Correct CablingTier1Mod1Wrksht14Lname.  Learning Target (Test Equipment):  **Module I: The Interactive Physical Layer:** This module also provides the initial information on the ***DAVE-3*** and students are familiarized with it and its use. Today's Lesson is applying the DAVE-3 test set.  Watch the video from the C-Tech CD > qt Folder, on using the DAVE-3 Transmitter. Watch the video form the C-Tech CD > qt Folder, on using the DAVE-3 Receiver  Learning Target:  **Module I: The Interactive Physical Layer:** This module also provides the initial information on **Testing the Physical Layer** and the ***DAVE-3.*** Students will become familiarized with it and its use. Today's Lesson is building power point presentation and quiz over Pages I-31 & I-32 *Testing the Physical Layer*, and I-33 through I-35 *The DAVE-3 test set*.  Students will research and build a power point presentation, give their presentation, and development an assessment over their presentation.  Students will be able to use the graphics available on the Y:Drive or CD and will also be able to use the C-Tech Equipment stored within the classroom.  The files will be named **CablingTier1Mod1Wrksht15PPTLname**, **CablingTier1Mod1Wrksht15TestLname**. |
|  | Continue to work on Power-point and worksheet.  Present Power Point  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.  Give presentation and turn in both the power-point and the worksheet.  The presentation will include part of Activity 1.2, pg I-30, Signal Tracing where each student will then practice with the DAVE-3 test set and practice with what was demonstrated during the presentation.  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.    Now the focus will be on **Testing with the DAVE-3.**  Each student will pair up and read out loud pages I-36 through I-37.  The class will then be broken into groups where worksheets and powerpoint presentations will be given on the following categories and page numbers (Students are allowed to use the instructor's manual to help to prepare their presentations):  I-37, **Testing with the DAVE-3** Introduction, File names **CablingTier1Mod1Wrksht16PPTLname, CablingTier1Mod1Wrksht16TestLname** |
|  | Continue to work on Power-point and worksheet.  Present Power Point  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.  Give presentation and turn in both the power-point and the worksheet.  The presentation will include part of Activity 1.2, pg I-30, Signal Tracing where each student will then practice with the DAVE-3 test set and practice with what was demonstrated during the presentation.  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.    Now the focus will be on testing **4-Pair Cabling System.**  Each student will pair up and read out loud pages I-38.  The class will then be broken into groups where worksheets and powerpoint presentations will be given on the following categories and page numbers (Students are allowed to use the instructor's manual to help to prepare their presentations):  I-38, **Testing with 4-Pair Cabling System**, File names **CablingTier1Mod1Wrksht17PPTLname, CablingTier1Mod1Wrksht17TestLname** |
|  | Continue to work on Power-point and worksheet.  Present Power Point  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.  Give presentation and turn in both the power-point and the worksheet.  The presentation will include part of Activity 1.2, pg I-30, Signal Tracing where each student will then practice with the DAVE-3 test set and practice with what was demonstrated during the presentation.  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.    Now the focus will be on **Testing 2-Pair Cabling System.**  Each student will pair up and read out loud pages I-39.  The class will then be broken into groups where worksheets and powerpoint presentations will be given on the following categories and page numbers (Students are allowed to use the instructor's manual to help to prepare their presentations):  I-39, **Testing with 2-Pair Cabling System**, File names **CablingTier1Mod1Wrksht18PPTLname, CablingTier1Mod1Wrksht18TestLname** |
|  | Continue to work on Power-point and worksheet.  Present Power Point  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.  Give presentation and turn in both the power-point and the worksheet.  The presentation will include part of Activity 1.2, pg I-30, Signal Tracing where each student will then practice with the DAVE-3 test set and practice with what was demonstrated during the presentation.  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.    Now the focus will be on the **DAVE-3 Tone and Trace Feature.**  Each student will pair up and read out loud pages I-40.  The class will then be broken into groups where worksheets and powerpoint presentations will be given on the following categories and page numbers (Students are allowed to use the instructor's manual to help to prepare their presentations):  I-40, **DAVE-3 Tone and Trace Feature**, File names **CablingTier1Mod1Wrksht19PPTLname, CablingTier1Mod1Wrksht19TestLname** |
|  | Continue to work on Power-point and worksheet.  Present Power Point  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.  Give presentation and turn in both the power-point and the worksheet.  The presentation will include part of Activity 1.2, pg I-30, Signal Tracing where each student will then practice with the DAVE-3 test set and practice with what was demonstrated during the presentation.  Learning Target:  **Module I: The Interactive Physical Layer:** Students will now begin to identify and practice with the different types of cables used with the DAVE-3 troubleshooting test set.    Now the focus will be on **Testing Fiber Optic Cables.**  Each student will pair up and read out loud pages I-41.  The class will then be broken into groups where worksheets and powerpoint presentations will be given on the following categories and page numbers (Students are allowed to use the instructor's manual to help to prepare their presentations):  I-41, **Testing Fiber Optic Cables**, File names **CablingTier1Mod1Wrksht20PPTLname, CablingTier1Mod1Wrksht20TestLname** |
|  | Learning Target:  **Module I: The Interactive Physical Layer:** Students will use the ***DAVE*** tester to trace the systems on the ***ITB*** and to create live simulations.  Activity 1.3 Testing 4-Pair Cable Systems, Page I-42  Activity 1.4 Testing 4-Pair Cable Systems (Green, Red, & Blue), Pages I-43 through I-48  Technology Learning Activity (The Emergency Room Telephone)  Learning Target:  Test Review.  Students will be able to complete the five objectives of Module 1:  1.  Identify all components of the ACT Unit 2.  Identify all aspects of the Banner Board 3.  Identify all components of the DAVE-3 Units 4.  Correctly identify all cables and test adapters 5.  Identify the Tool Kit |
|  | Tier 1, Module 1 Test. |
|  | Continue with the Test over Tier 1, Module 1 |
|  | Activity 2.1 Telecommunications - Encoding and Decoding a Message. Assign groups in pairs.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will also gain an understanding as to how telecommunication equipment interfaces the user with the message and they will create a block diagram indicating signal distribution.  Students:  Watch the YouTube Videos on the Telegraph.  1) About Telegraphs & Morse Code, 2) Morse Code Basics, 3) How it Works, 4) History, 5) Materials, 6) Setting Up Tin & Light Bulb, 7) Preparing the Tin, 8) Cutting the Wires, 9) Stripping the Wire, 10) Wrapping the Wire,  11)  Connecting the Knife Switch, 12) Checking the Connection, 13) Final Connection, 14) Saying Hello  Activity 2.2 Building a Telegraph as a class.  Send a test message from one machine to a second machine.  Forward that original message from the second machine to a third machine.  Compare the original message with the final message. |
|  | Continue working on the telegraph |
|  | Continue working on the telegraph |
|  | Activity 2.1  Telecommunications-Endcoding and Decoding a Message  Learning Target:  To become familiar with the telecommunication process in regard to encoding and decoding of a transmitted message.  Both sender and the recorder must use the same method to encode, however neither recorder needs to use the same method to decode.  For instance, is the sender holding down the "tapper" for long dashes or are they using long spaces in between taps.  Follow the lesson guide outlined under page II-5. |
|  | Send and Receive a Message.  Students develop a message.  Each students will then take turns sending and receiving their messages. |
|  | Learning Target:  **Module II: Telecommunications: From the Beginning** In this module students are introduced to the history and function of various telecommunications systems, including telegraph, telephone, modem, fax machine, television and computer networks.  Students read pages II-1 & II-2 and complete worksheet CablingTier1Mod2WS1Lname, a key for the worksheet named CablingTier1Mod2WS1KeyLname., and a Powerpoint Presentation named CablingTier1Mod2Ppt1Lname. |
|  | Students conduct presentation 1.  Learning Target:  **Module II: Telecommunications: From the Beginning** In this module students are introduced to the history and function of various telecommunications systems, including telegraph, telephone, modem, fax machine, television and computer networks.  All students will read Pages II-3 & II-4   "A History of Communication" & Name them CablingTier1Mod2PPT2Lname& CablingTier1Mod2WS2Lname, CablingTier1Mod2WS2Key. |
|  | Students conduct presentation 2.  Learning Target:  **Module II: Telecommunications: From the Beginning** In this module students are introduced to the history and function of various telecommunications systems, including telegraph, telephone, modem, fax machine, television and computer networks.  All students will read Pages II-6 "Telecommunications"  & Name them CablingTier1Mod2PPT3Lname & CablingTier1Mod2WS3Lname, CablingTier1Mod2WS3Key. |
|  | Students conduct presentation 3.  Learning Target:  **Module II: Telecommunications: From the Beginning** In this module students are introduced to the history and function of various telecommunications systems, including telegraph, telephone, modem, fax machine, television and computer networks.  All students will read Pages II-7 through II-9 "The first telecommunication systems"  & Name them CablingTier1Mod2PPT4Lname & CablingTier1Mod2Wrksht4Lname, CablingTier1Mod2Wrksht4Key. |
|  | Students conduct presentation 4.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  Students will Read pages II-12 through II-30 in pairs.  Student pairs will then begin Presentations and Worksheets on the following subjects:   The Telephone:  Voice system (Pages II-12 to II-14),  CablingTier1Mod2PPT5Lname, CablingTier1Mod2Wrksht5Lname & Key CablingTier1Mod2Wrksht5Key. |
|  | Students conduct presentation 5.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Power of Electricity: The radios (Pages II-15 to II-16), CablingTier1Mod2PPT6Lname, CablingTier1Mod2Wrksht6Lname& Key CablingTier1Mod2Wrksht6Key. |
|  | Students conduct presentation 6.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Television: The Camera and the Receiver (Pages II-17 to II-19), CablingTier1Mod2PPT7Lname, CablingTier1Mod2Wrksht7Lname &Key CablingTier1Mod2Wrksht7Key. |
|  | Students conduct presentation 7.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Television:  The Transmission (Pages II-20 to II-22), CablingTier1Mod2PPT8Lname, CablingTier1Mod2Wrksht8Lname  & Key CablingTier1Mod2Wrksht8Key. |
|  | Students conduct presentation 8.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Networked Computer (II-24), CablingTier1Mod2PPT9Lname, CablingTier1Mod2Wrksht9Lname  & Key CablingTier1Mod2Wrksht9Key.  Then have them dig into the supplies and find the cables and the end jacks.  They will have to look for them.  There is a known good cable behind my personal computer by the scanner.  They can test the known good cable already plugged into the wall with the ones they construct.  They need to visit the link below for the color scheme.  This is only a practice.  They will have to use crimpers and safety goggles also.  Make sure they put everything back.  Then have them look up five occupations that deal with networking, cabling, and electronics.  Write down the amount of education necessary and the starting salary.  They are supposed to stay busy[http://en.wikipedia.org/wiki/Category\_5\_ by paraphrasing each paragraph and chart.](http://en.wikipedia.org/wiki/Category_5_%20by%20paraphrasing%20each%20paragraph%20and%20chart.%20%20) |
|  | Learning Target:  Today we are going to build CAT-5 Cable.  Review the link:  <http://en.wikipedia.org/wiki/Category_5_cable>.  Here you can see definitions, charts, and diagrams on engineering, efficiency, and dynamics of CAT-5 Cable and other types of networking hardware.  Students will need to get out Cat 5 Cable, Cat 5 Connecting Jacks, Wire cutters, & Safety Glasses.  Once each student completes his construction.  A connection will be made with a Known Good Cable (KGC) and then that KGC will be replaced with the student's prototype for verification of correctness.  Lable each of the students' cables with tape for turning in on Wednesday.  Students conduct presentation 9.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Facsimile Machine (Pages II-25 to II-27), CablingTier1Mod2PPT10Lname, CablingTier1Mod2Wrksht10Lname & Key CablingTier1Mod2Wrksht10Key. |
|  | **YouTube** Video:  *Recognize An RJ11 Modular Phone Jack, How to Punch Down an RJ11 Jack, ViewDo:  How to Make an Ethernet Patch Cable (RJ45), Computer Maintenance & Upkeep : What Is Cat 5 Wiring?, Tiger How-To:  Cables to Go Network Cable Installation, Corey Davis - How to wire a Cat-5 Cable, How to make an Ethernet Cat5e Cable, How to Punch Down an RJ45 Keystone Jack with a Impact Tool*Students conduct presentation 10.  Learning Target:  **Module II: Telecommunications: From the Beginning** Students will develop an understanding of how the telecommunications industry distributes information to the workplace and to homes.  The Cell Phone (Pages II-28 to II-29), CablingTier1Mod2PPT11Lname, CablingTier1Mod2Wrksht11Lname & Key CablingTier1Mod2Wrksht1Key. |
|  | Learning Target:  **Module II: Telecommunications: From the Beginning** After the completion of this module students will be able to define the primary function and how data is transferred in the various telecommunications systems.  Classifications of Telecommunication Systems (II-30).  CablingTier1Mod2PPT12Lname, CablingTier1Mod2Wrksht12Lname & Key CablingTier1Mod2Wrksht12Key. |
|  | Last day of school |
|  |  |
|  | Learning Target:  **Module II: Telecommunications: From the Beginning** After the completion of this module students will be able to define the primary function and how data is transferred in the various telecommunications systems.  Students:  Continue working on presentations and worksheets. |
|  | Learning Target:  **Module II: Telecommunications: From the Beginning** After the completion of this module students will be able to define the primary function and how data is transferred in the various telecommunications systems.  Students:  Presentations  Stationing Groups:  Complete Worksheets 5, 6, 7, 8, 9, 10, 11, & 12 |
|  | Correct the Worksheets  Activity 2.3 What Have I Learned. |
|  | Learning Target:  **Module III: Transmission Media and Physical Layer Components** In this module students are introduced to the characteristics of the cabling systems and terminations that constitute the “Physical layer” of the telecommunications field.  These systems and terminations were used by the students in Module I.  Students will Read pages III-1 through III-27 in pairs. |
|  | Student pairs will then begin Presentations and Worksheets on the following subjects:  Define the level or category associated with the different types of twisted pair cabling systems:  CablingTier1Mod3PPT12Lname, CablingTier1Mod3Wrksht13Lname & Key  Define the reasoning for the twisted pair cabling system that includes noise reduction and cross talk elimination techniques:   CablingTier1Mod3PPT13Lname, CablingTier1Mod3Wrksht14Lname& Key  Identify 2-Pair System Cabling characteristics that include pair, tip and ring identification:  CablingTier1Mod3PPT14Lname, CablingTier1Mod2Wrksht15Lname &Key  Define the characteristics of the RJ-XX twisted pair modular connecting system to include associated plugs, jacks, patch cords, and adapters:  CablingTier1Mod3PPT15Lname, CablingTier1Mod3Wrksht16Lname  & Key  Demonstrate and identify pair to pin configurations using the EIA/TIA 570 Standard:  CablingTier1Mod3PPT16Lname, CablingTier1Mod3Wrksht17Lname  & Key  Define the characteristics of Coaxial Cable systems to include BNC and F-Type connectors:  CablingTier1Mod3PPT17Lname, CablingTier1Mod3Wrksht18Lname & Key  Define characteristics of Fiber Optic Cable systems and the ST connector:  CablingTier1Mod3PPT18Lname, CablingTier1Mod3Wrksht19Lname & Key  Classifications of Telecommunication Systems (II-30).  CablingTier1Mod3PPT19Lname, CablingTier1Mod3Wrksht20Lname & Key |
|  | Learning Target:  **Module III: Transmission Media and Physical Layer Components** Students are provided with information about the construction characteristics, industry standard configurations, signal transmission capability and application of each cabling system  Students:  Continue working on presentations and worksheets. |
|  | Students:  Presentations  Stationing Groups:  Complete Worksheets 13, 14, 15, 16, 17, 18, 19, & 20 |
|  | Correct the Worksheets  **YouTube Videos:**  *Latest Telecommunication Technology, Telecommunication Services for the 1990s, Telecommunications at Mitchell Technical Institute, Telecommunications Engineering Technology (RTI), Telecommunications Line Installers and Repairers, Telecommunications Wiring Telephone Nightmares, 12,000 Volt Telephone Wire Explosion,*  Activity 3.4 "What I have Learned" |
|  | Learning Target:  **Module IV: Safety** At the completion of this module, students will have a familiarity with general safety precautions to protect themselves, on the job site in addition to knowledge of electrical hazards, hazardous equipment safety, and fire safety.  **YouTube Videos:**  *240,000 Volt Explosion.wmv, 33,000 Volt Fatal Explosion, Electrocuted Squirrel, Bear Electrocuted, Electrocuted Cat, Kids Getting Electrocuted - Elecric Fence, Fly Electrocution made with high speed cameria 2000FPS* |
|  | Learning Target:  **Module IV: Safety** At the completion of this module, students will have a familiarity with general safety precautions to protect themselves, on the job site in addition to knowledge of electrical hazards, hazardous equipment safety, and fire safety.  Teacher Presentation:  **CablingTier1Mod4PPT21Safety.**  This will go into depth about Personal, Worksite, and Equipment safety.  **YouTube** Video:  WorkSafeBC: Worker Falls after Gutter Hits Power Line, Electrical Accident, Free Electricity from Phone Line, FREE Hidden Electricity! |
|  | Learning Target:  **Module IV: Safety** At the completion of this module, students will have a familiarity with general safety precautions to protect themselves, on the job site in addition to knowledge of electrical hazards, hazardous equipment safety, and fire safety.  Under a researched-based strategy of language arts called the impress method, students will read in pairs out loud to each other pages IV-1 through IV-4.  Under a researched-based strategy in educational psychology called conservationalism, the class will work through a division of labor in order to create one large worksheet covering the main and subtopics of Tier1Mod4TelecommunicationsSafety.  The architecture of each individual worksheet will then be combined in order to create one comprehensive questionnaire covering the importance of safety.  As a class, the topics will be discussed for logic, clarity, and appropriate relationships to the various categories within Bloom's Taxonomy.  D. Beck:  Student responsible for Filling in the Picture's arrows (ppt), name **CablingTier1Mod4Wrksht21Picture & CablingTier1Mod4Wrksht21PictureKey**  R. Aguirre:  Student responsible for Matching (10), name **CablingTier1Mod4Wrksht22Matching &  CablingTier1Mod4Wrksht22MatchingKey**  K. Vogel:  Student responsible for True and False (10), name **CablingTier1Mod4Wrksht23T&F & CablingTier1Mod4Wrksht23T&FKey**  J. Zilgitt:  Student responsible for Multiple Choice (10), name **CablingTier1Mod4Wrksht24MultChoice & CablingTier1Mod4Wrksht24MultChoiceKey**  D. Bergeron:  Student responsible for Fill in the Blank (10), name **CablingTier1Mod4Wrksht25FillBlanks & CablingTier1Mod4Wrksht25FillBlanksKey**  C. Christiansen:  Student responsible for Adding Conceptual Mapping (1), name **CablingTier1Mod4Wrksht26Mapping & CablingTier1Mod4Wrksht26MappingKey**  Z. Swope:  Student responsible for Adding Venn Diagrams (1), name **CablingTier1Mod4Wrksht27VennDiag & CablingTier1Mod4Wrksht27VennDiagKey**  M.  Knofczynski:  Student responsible for Story Problem and Opinion (1), name **CablingTier1Mod4Wrksht28StoryProb** & **CablingTier1Mod4Wrksht28StoryProbKey**  Teacher:  Student responsible for combining all of the categories into one.  All of the above items will become part of the worksheet.  The worksheet will become one with many authors.  It is imperative that all of these items be neatly placed on the worksheet in the above order. **CablingTier1Mod4Worksheet29Safety** |
|  | Continue working on worksheets.  They are to be turned in before class ends. |
|  | Safety Test.  Correct Test. |
|  | Learning Target:  **Module V: Tools, Construction Techniques And Test Equipment Utilized in Network Cabling.** In this module, students will develop and practice the skill of using tools to construct cabling systems.  Under a researched-based strategy of language arts called the impress method, students will read in pairs out loud to each other pages V-1 through V-11.  Under a researched-based strategy of educational psychology called conservationalism, the class will work through a division of labor in order to create one large worksheet covering the main and subtopics of Tier1Mod5 Tools, Construction, Techniques, and Equipment.  The architecture of each individual worksheet will then be combined in order to create one comprehensive questionnaire covering the subjects' matter.  As a class, the topics will be discussed for logic, clarity, and appropriate relationships to the various categories within Bloom's Taxonomy.  Student pairs will then begin to create Presentations and Worksheets on the following objectives:  Identify and use Coaxial Cable Stripping Tools:  CablingTier1Mod5PPT30Lname, CablingTier1Mod5Wrksht30Lname & Key  Identify and use the RJ-11stripping and crimping tool:   CablingTier1Mod5PPT31Lname, CablingTier1Mod5Wrksht31Lname& Key  Safely &correctly strip & terminate 2-Pr wire with RJ-11:  CablingTier1Mod5PPT32Lname, CablingTier1Mod5Wrksht32Lname &Key  Perform continuity checks on new wire using the DAVE-3:  CablingTier1Mod5PPT33Lname, CablingTier1Mod5Wrksht33Lname  & Key  **YouTube** Video:  *PTX Battery & Electric Wire Wrap/Unwrap Tools, Electrian tools or the trade part 1, Electrian tools or the trade part 2* |
|  | Safety Test.  Correct Test |
|  | No School |
|  | No School |
|  | Learning Target:  **Module V: Tools, Construction Techniques And Test Equipment Utilized in Network Cabling.** In this module, students will develop and practice the skill of using tools to construct cabling systems.  Students will receive instruction on the use of tools and safety equipment in order to construct Two Pair Patch Cords using RJ-11 Plugs, Coaxial Cable using F-Type Connectors, and Cat-5 Cable.  **YouTube** Video:  *Recognize An RJ11 Modular Phone Jack, How to Punch Down an RJ11 Jack, ViewDo:  How to Make an Ethernet Patch Cable (RJ45), Computer Maintenance & Upkeep : What Is Cat 5 Wiring?, Tiger How-To:  Cables to Go Network Cable Installation, Corey Davis - How to wire a Cat-5 Cable, How to make an Ethernet Cat5e Cable, How to Punch Down an RJ45 Keystone Jack with a Impact Tool,* |
|  | Learning Target:  **Module V: Tools, Construction Techniques And Test Equipment Utilized in Network Cabling.** All constructions are completed using typical tools of the trade and all construction techniques comply with industry standards. For the purpose of safety, students will not terminate fiber optic cable.  Students will continue to receive instruction on the use of tools and safety equipment in order to construct Two Pair Patch Cords using RJ-11 Plugs, Coaxial Cable using F-Type Connectors, and Cat-5 Cable.  Tape your cable with your name.  Also, keep the failures in tact to test those against known good cables.  **YouTube** Video:  *High Voltage Cable Inspection*, *Is the Quality of your Coax Cable Important?, How to use Stripper to conect COAXIAL cable to F Connector, How to put a BNC on RG59 coaxial cable properly, CABLE COAXIAL Y CABLE UTP, How to Terminate Coaxial Cable*. |
|  | Learning Target:  **Module V: Tools, Construction Techniques And Test Equipment Utilized in Network Cabling.** Students will receive instruction on how to safely construct Cat-5 Cable and Coaxial Cable to include the use of tools and safety equipment.  Students will continue to construct Cat-5 Cable and Coaxial Cable.  Students will also learn about the latest in Technology for Security Testing Cable.    **YouTube** Video:  *SecuriTEST™ PRO CCTV/Security Cable Tester & Camera Controller & Programmer, Rapport II MULTIFUCTION CCTV TESTER*, *Linksys Router Setup Video, How to Install Your Linksys Wireless Router, How to Set Up a Wireless Router & Network:  WEP Keys for Wireless Router, GetConnected - How To - Secure Wireless Router Set Up* |
|  | Learning Target:  **Module V: Tools, Construction Techniques And Test Equipment Utilized in Network Cabling.** Students will build on their knowledge of ***DAVE-3*** that was developed in Module I by using ***DAVE-3*** to test their constructed cabling systems for required continuity.  Students will test the continuity of RJ11, Coaxial Cable, and Cat-5 Cable they constructed.  Make sure you use both the Transmitter and Receiver of the DAVE-3 set.  **YouTube** Video:  *DealExtreme RJ45 RJ11 2-in-1 Network and Phone Cable Tester, 3-in-1 RJ45 Network/RJ11 and USB Cable Tester - from DealExtreme* **C-Tech Video***:  DAVE-3 Tester* |
|  | Learning Target:  **Module VI: Troubleshooting and Testing the Physical Layer**  In this module students will be introduced to the basics of troubleshooting and testing common signal flows on the Interactive Training Board.  Under a researched-based strategy of language arts called the impress method, students will read in pairs out loud to each other pages VI-1 through VI-14.  Under a researched-based strategy in educational psychology called conservationalism, the class will work through a division of labor in order to create one large worksheet covering the main and subtopics of Tier1Mod6 Testing and Troubleshooting the Physical Layer.  The architecture of each individual worksheet will then be combined in order to create one comprehensive questionnaire covering troubleshooting.  As a class, the topics will be discussed for logic, clarity, and appropriate relationships to the various categories within Bloom's Taxonomy.  Student pairs will then begin to create Presentations and Worksheets on the following objectives:    (Justin Z) Define the terms Testing, Troubleshooting and Preventive Maintenance:  CablingTier1Mod6PPT34Lname, CablingTier1Mod6Wrksht34Lname & Key  (Zach S) Perform operational checks on the DAVE-3 to insure its ability to test the systems of the ITB:   CablingTier1Mod6PPT35Lname, CablingTier1Mod6Wrksht35Lname& Key  (Kevin V) Perform End-To-End signal testing using the DAVE-3 to insure its ability to test entire cabling systems on the ITB:  CablingTier1Mod6PPT36Lname, CablingTier1Mod6Wrksht36Lname &Key  (Dylan B) Perform selective testing of individual cabling subsystems on the ITB:  CablingTier1Mod6PPT37Lname, CablingTier1Mod6Wrksht37Lname  & Key  (Rigoborto A) Perform signal testing of the fiber optic system, on the ITB, using the Student Personal Optical Tester (SPOT):   CablingTier1Mod6PPT38Lname, CablingTier1Mod6Wrksht38Lname& Key  (Chase C & Dave B) Identify the basic characteristics of the following basic Troubleshooting Techniques (The Split-Half Method, Fault Isolations Techniques, Hard Fault Troubleshooting, Intermittent Faults):  CablingTier1Mod6PPT39Lname, CablingTier1Mod6Wrksht39Lname &Key  (Mike K) Identify the use of Patch Cords, Adapters and Bridging Clips to simulate or to correct Physical Layer malfunctions on the ITB:  CablingTier1Mod6PPT40Lname, CablingTier1Mod6Wrksht40Lname  & Key |
|  | Learning Target:  **Module VI: Troubleshooting and Testing the Physical Layer**  They will use the ***DAVE-3*** to identify faulty system indications and then use patch cables or reconfigure the ITB to bypass suspected/known faults.  Students:  Presentations  Stationing Groups:  Complete Worksheets 34, 35, 36, 37, 38, 39, 40. |
|  | Correct Worksheets  Learning Target:  **Module VI: Wireless Network Security**  **YouTube** Video:  *How to Hack Wireless Networks (WEP - Windows/Linux) - Part 1, How To Hack Wireless Networks (WEP - Windows/Linux) - Part 2.* |
|  | Learning Target:  **Module VII: Telecommunications: A Glimpse To The Future** In this module students will be introduced to some of the new technology being developed in the Telecommunications Industry.  Under a researched-based strategy of language arts called the impress method, students will read in pairs out loud to each other pages VII-1 through VII-8.  Under a researched-based strategy in educational psychology called conservationalism, the class will work through a division of labor in order to create one large worksheet covering the main and subtopics of Tier1Mod6 Testing and Troubleshooting the Physical Layer.  The architecture of each individual worksheet will then be combined in order to create one comprehensive questionnaire covering troubleshooting.  As a class, the topics will be discussed for logic, clarity, and appropriate relationships to the various categories within Bloom's Taxonomy.  Student pairs will then begin to create Presentations and Worksheets on the following objectives:    (Justin Z) Introduction & Smart House:  CablingTier1Mod7PPT41Lname, CablingTier1Mod7Wrksht41Lname & Key  (Zach S) Wiring Infrastructure:   CablingTier1Mod7PPT42Lname, CablingTier1Mod7Wrksht42Lname& Key  (Kevin V) The Home Personal Computer:  CablingTier1Mod7PPT43Lname, CablingTier3Mod7Wrksht43Lname &Key  (Dave B) Smart Devices:  CablingTier1Mod7PPT44Lname, CablingTier1Mod7Wrksht44Lname & Key  (Mike K) Wireless Systems:   CablingTier1Mod7PPT45Lname, CablingTier1Mod7Wrksht45Lname& Key  (Chase C) Consumer Electronics:  The Future is Today:  CablingTier1Mod7PPT46Lname, CablingTier3Mod7Wrksht46Lname &Key  (Rigoberto A) Appexdix A items 1-8:  CablingTier1Mod7PPT47Lname, CablingTier1Mod7Wrksht47Lname & Key  (Dylan B) Appendix A items 9-17:  CablingTier1Mod7PPT48Lname, CablingTier1Mod7Wrksht48Lname& Key |
|  | Learning Target:  **Module VII: Telecommunications: A Glimpse To The Future** They are given an opportunity to speculate about future trends and assess the positive and negative impacts of the technological developments.  Students:  Presentations  Stationing Groups:  Complete Worksheets 41, 42, 43, 44, 45, 46, 47, 48. |
|  | Correct Worksheets.    FINAL PROJECT:  Each student will be given a Module to create a Jeopardy Game on.  There are seven modules.  The eighth Jeopardy game will cover the terms in the glossary. |
|  | Review for the Test  FINAL PROJECT:  Continue Working On Project. |
|  | Test:  End of Trimester   FINAL PROJECT:  Scored. |
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|  | **Tier II**  Learning Target:  **Module I: The.... :** Presentation of ACT Layout  Learning Target:  **Module I: The.... :** Viewing the Banner BoardLearning Target:  **Module I: The.... :** Layout DAVE-3 Transmitter & Layout DAVE-3 ReceiverLearning Target:  **Module I: The.... :** Testing Known good cablesLearning Target:  **Module I: The.... :** Test Adapters 110, Red, Blue, and A66 Modular. Learning Target:  **Module I: The.... :** Introduction to the Tool KitLearning Target:  **Module II: The.... :** Cables, 4 PairLearning Target:  **Module II: The.... :** Cables, 4 Pair UTP Color Code Chart for solids (Tip White, Ring Solid) by pairLearning Target:  **Module II: The.... :** Cables, 4 Pair UTP Color Code Chart for base/stripes (Tip White base, Ring Color base) by pairLearning Target:  **Module II: The.... :** End connectors, Cat5Learning Target:  **Module II: The.... :** End connectors with protective pull covers and complete Cat5 cableLearning Target:  **Module II: The.... :** MPS5 connectorsLearning Target:  **Module II: The.... :** T568A, T568B, and USOC connector wiring schemes  Learning Target:  **Module II: The.... :** 8P8C Modular Plug and Jack Pinout in relationship to the differences between T568A, T568B, and USOC wiring schemesLearning Target:  **Module II: The.... :** 66 Block, 66M1-25Learning Target:  **Module II: The.... :** Difference in 66 Pins for Cat3 & Cat5 connectionsLearning Target:  **Module II: The.... :** Fully Terminated M 1-50 66 BlockLearning Target:  **Module II: The.... :** 66 Block Pin ComparisonLearning Target:  **Module II: The.... :** 100 Pair 110 Type Wiring BlockLearning Target:  **Module II: The.... :** SIIODWI-50 BlockLearning Target:  **Module II: The.... :** 110 AdapterLearning Target:  **Module II: The.... :** Fully Terminated 110 Block (100 Pair)Learning Target:  **Module II: The.... :** Cable Connections into ServersLearning Target:  **Module II: The.... :** Shortest fan distance before pair connectionsLearning Target:  **Module II: The.... :** Components of 4 pair twisted cable to include foil. Learning Target:  **Module II: The.... :** Five base color strands of 5 pair twisted cable in White, Red, Blue, Yellow, and Violet (25pair)Learning Target:  **Module II: The.... :** 25 pair Color Code Chart with specific colors per pair. Learning Target:  **Module III: The.... :** Person Protection |
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