

Lesson Plan for Networking Fundamentals -IT AND ME WORKS--GRADE 10 CURRICULUM

Topic: Transmission Media

Time: Up to 6 hours

Objectives:

1. Students will be introduced different transmission media methods used in the past, present as well as emerging methods.
2. Students will be able to identify the different the different types of cables used in basic networking.
3. Students will be able describe interference issues/problems with the basic transmission methods.
4. Students will make patch cables of specified length for indicated use.

Activities:

Teacher will lead a discussion in the different transmission methods that have been used in the past as well as current methods. This discussion will focus on the basics of how information is transmitted as well as problems and difficulties associated with them. Students should also have an opportunity to see/handle different types of cable/wiring used in industry.

Students will have the opportunity to make patch cables for use in the lab. These patch cables will involve the use of various connectors, wire cutters and crimping tools.

Materials:

1. Cable/wire samples (your tech office should have an assortment of scrap wire, also you could ask a local electrician or computer shop if they have or could save scraps or samples for you).
2. Spool of CAT 5 UTP cable, supply of connectors for each group, wire cutters and crimping tools (one set per group).
3. Color print of cable end layout (one per student/group)
4. Cable tester (one per class will work, but two would be better)

School to Career Connection:

Have a network installation team/supervisor come to visit to demonstrate different cable/wiring hardware and methods.