

## Transmission Media Activity?

Activity Title: "Media Match-Up!"

**Objective:** Students will correctly match types of network media (Twisted Pair, Coaxial, Fiber, Wireless) with their properties (e.g., speed, cost, distance, interference resistance).

*Materials Needed:*

1. **Picture Cards:** Large, colorful images of each media type.
2. **Property Cards:** Simple descriptions of properties (e.g., "High speed, expensive" for Fiber).
3. **Real-Life Objects** (optional): A short piece of twisted-pair cable, coaxial cable, fiber optic cable, and a Wi-Fi router image.
4. **Large Poster/Whiteboard:** For group matching.
5. **Stickers/Colored Dots:** For rewards.

Step-by-Step Activity:

1. *Introduction (5-10 mins)*

- Show real objects/images of the four media types.
- Briefly describe each in simple terms:
  - **Twisted Pair:** "Like phone wires; cheap but slow over long distances."
  - **Coaxial:** "Like TV cable; faster than twisted pair."
  - **Fiber:** "Super-fast light wires; expensive but great for long distances."
  - **Wireless:** "No wires! Uses signals (like Wi-Fi); convenient but can have interference."

### Match Maker Game

Column A (Type of Transmission Media)	Column B (Characteristic / Description)
A. Twisted Pair Cable	1. Uses light signals; very high bandwidth and low attenuation
B. Coaxial Cable interference	2. Two insulated copper wires twisted together; susceptible to interference
C. Optical Fiber	3. Copper core with metallic shielding; better shielding than twisted pair
D. Radio Waves	4. Wireless communication; omnidirectional; used in AM/FM transmission
E. Microwaves	5. Wireless communication; unidirectional; used in satellite and cellular communication