



All Academy Day: Cable-Making Event Details

Overview

Description

Teams make patch, crossover, and rollover cables. Cables are judged for craftsmanship and labeling and must pass a wire mapping test.

Related curriculum

All curricula

Number of players

Two teams made up of 4 to 5 competitors each

Time required to prepare for or set up this event

40 minutes for preparation: cutting cable, dividing RJ-45s, printing documents, setting up room

Length of time to play

The total time for the cable-making event is 40 minutes.

We suggest giving the contestants 30 minutes to build the cables and the judges 10 minutes to judge and score the results.

Rules

Object of the game

- Successfully make and test a total of 5 patch, 5 crossover, and 5 rollover cables

Playing the game

- Each team is given 15 precut lengths of CAT 5e and 35 RJ45 plugs.
- Each team must successfully make and test a total of 5 patch, 5 crossover, and 5 rollover cables.
- Teams are to use their own termination kits.
- Teams may use their own cable tester to check the cable before they turn it into the judges.
- The competitors of the team can help each other. No one else is permitted to assist the teams.
- Time is recorded when all cables are turned into the judges for testing.
- In case of a tie in points, the team that completes the task in the shortest amount of time wins.

Scoring

Use the cabling event scoring form to determine the appropriate number of points for each team.

Earning points

- Each cable is worth 15 points and will be judged for craftsmanship:
 - Insulation crimped
 - Pairs fully inserted
 - Nylon reinforcement cord trimmed
- Cables must be labeled properly.
- Cables must pass a wire map (download) or no points will be awarded for that cable.

Deductions

- Points will be deducted for the use of any extra RJ 45 plugs used past the 30 needed.
- Points will be deducted if contestants are not wearing eye protection.

Bonus

- There is a 10-point BONUS if all 15 cables test out properly.

All Academy Day scoring

- Each team can earn up to 100 points in the cabling event.
- Enter the Team Grand Total from the cabling event scoring form into the All Academy Day scoring sheet.

Equipment List

Supplies

- Two Fluke 620 testers for judging
- 15 precut 4-foot lengths of CAT5e cable plus extra per team
- Wire cutters to cut the cable to size
- 35 male RJ45 plugs per team
- Plastic bags (sandwich size) to hold RJ45 plugs
- Backup eye protection
- Labels for cables
- Markers to write on the labels
- Pens for judges
- Timer or stopwatch
- Cable-making sign for the room or area

Downloads to print

- Rules (print one for each team and one for each judge)
- Judging forms (print one for each team)
- Wire map diagrams (print one for each team and one for each judge)

Judges

- One facilitator or head judge
- One additional judge

Room set-up

- Four 6-foot tables (8-foot tables are fine)
- Enough chairs for contestants, judges, and audience

In addition, each team should supply the following

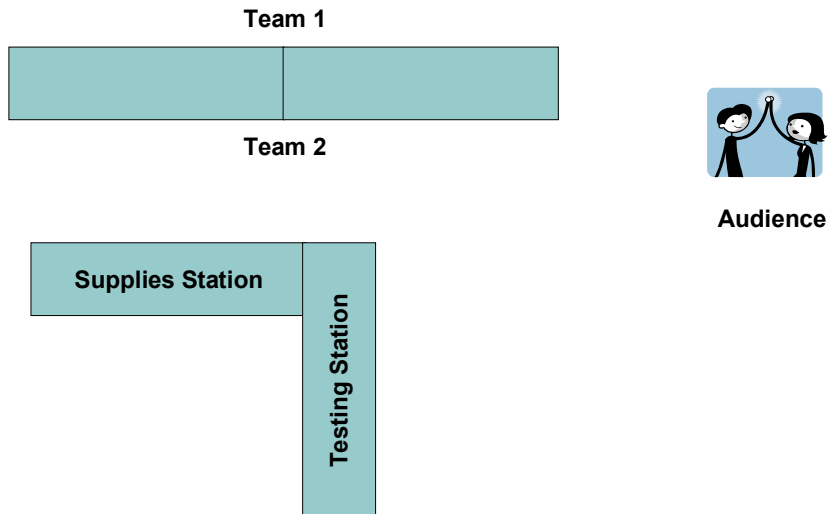
- One cable tester for the team
- Copper cable terminating tools for each contestant
- Eye protection for each contestant

Room setup

General room setup

- Post a Cable-Making Event sign on the door to or section of the room.
- No power is needed, so the cabling contest can be set up in any room.
- Place two 6-foot tables end to end to create one 12-foot competition area.
- Team A will compete on one 12-foot half. Team B will compete on the other side.
- Place the remaining two tables together to form an L shape. One table will hold the cable-making supplies for the day. The other table will serve as the testing station for the judges.
- Seat the audience members so they can see the teams.

Cable-Making Event Floor Plan



Place the following on the table for each team

- A plastic bag with 35 male RJ45 plugs
- One bundle of 15 4-ft lengths of CAT5e cable
- Labels for cables
- Markers to write on the labels
- One wire map diagram
- One set of rules

Each team will bring the following to their table when they compete

- One cable tester
- Copper cable terminating tools for each contestant
- Individual eye protection

Place the following on the judges' table

- Two Fluke 620 testers for judging
- Two sets of rules
- Two wire map diagrams
- One judging form for each team plus spare forms
- Pens for completing the forms
- Timer or stopwatch

Hints for success

- Have Academies and students review the rules before they come to the event.
- Tape the rules and wire map diagrams to the contestant and judging tables.



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