



Air Force Association

How CyberPatriot Works



WHAT DOES A SCHOOL NEED TO PARTICIPATE?

Each CyberPatriot team requires a coach, usually a teacher or adult leader of a team-sponsoring organization. Coaches do not need to be computer experts. In fact, any teacher or responsible adult leader can effectively lead a team to a fun and successful competition!

One or two computers and an Internet connection are required for occasional weekend use during the on-line portions of the competition. Computer hardware requirements are modest, and most schools already have computers that meet the technical specifications of the competition. The computer technical requirements are available in the *CyberPatriot Technical Specification Document*. In cases in which a school cannot provide the needed equipment or Internet connection, CyberPatriot will assist in attempting to locate equipment or providing alternate Internet access. CyberPatriot's goal is to make sure that every team that wants to participate can participate.

There is a modest \$350 registration fee for each team registered. In return, the team receives access to the Microsoft Developers Network Academic Alliance software. This allows the team to download a number of operating systems and productivity tools that can be used to prepare for the competition. This benefit alone is worth several thousand dollars. Each registered team members also receives a CyberPatriot participant kit which in 2010 included a CyberPatriot tee shirt, a commemorative coin, an official competitor's pin, and a backpack. Team members of qualifying teams received all expenses-paid trips to Orlando for semi-finals competition and to Washington, DC for the National Finals Competition in the 2010 competition. And winning teams in each of the two CyberPatriot divisions received education grants.

All cyber teaching materials are provided, and there is no course or skill prerequisite for the program. Any student with the interest can join a team and be successful.

WHAT MAKES UP A TEAM?

A team is made up of two to five students and a coach. Coaches need no special technical background, and coaching a CyberPatriot team is not restricted to instructors of technical subjects like math or science. Any teacher with the desire to help students learn something new, exciting and relevant can be a great CyberPatriot coach. CyberPatriot provides all of the training materials a coach needs to prepare a team for a successful competition.

In cases where coaches need help with computer basics, CyberPatriot will help identify technically qualified mentors from the program's mentor network. Mentors are volunteers who possess appropriate skills and who have undergone a background check.

WHAT TRAINING MATERIALS DO WE NEED?

Although coaches are welcome to supplement the provided teaching materials as they wish, all materials necessary for a successful competition are provided by CyberPatriot via the worldwide web. Teachers (and other coaches) are encouraged to use the provided materials not solely for use in preparing their team for competition, but also to educate all students in their school or organization about good cyber security practices and safe computer and Internet use.

HOW DOES COMPETITION WORK?

The early rounds of the competition are done on-line during weekends via the Internet from teams' schools or other sponsoring organizations' facilities.

Prior to the round, teams download "virtual image" representations of operating systems with known flaws, or cyber security "vulnerabilities." The teams' assignment is to find the flaws while keeping specified computer functions ("services," such as email) working. Team progress is recorded by a central CyberPatriot scoring system.

The first two rounds of competition are open to all registered teams. After those two rounds, top scoring teams (roughly the highest 25%) are invited to take part in a third on-line round.

At the end of the third round, a select number (approximately ten) teams from each division will be invited to attend an in-person semi-final competition in Orlando, Florida for which all team travel expenses are paid by CyberPatriot. There, teams will compete face to face and will defend virtual networks from a professional aggressor team. The teams are given a business scenario; they will be newly hired IT professionals who will be managing the network of a small company. There will be 8 to 12 virtual machines on this network that need to be managed. Teams get their score by reducing the known vulnerabilities of the network, maintaining critical services (email, web server, etc.) and by defending the network from attack.

At the semi final round, the top five teams are identified and invited to take part in the CyberPatriot National Finals Competition in the Washington, DC area. There, teams are given a new scenario and a new virtual network to secure and defend.

For more information, please visit www.uscyberpatriot.org.

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