

CAD (Level 4)

Description – Teams will be asked to create one or more CAD designs/views as solutions to the problem.

Internet Access – Not needed for challenge completion

Helpful tools – 3-D modeling CAD software such as Autodesk Inventor, Solid Works, etc.

Judging – At the end of the contest time, teams should save their work and upload their work in **PDF format** to the GCC Google Drive folder, along with any instructions needed for Judges to view.

Criteria – Solutions will be evaluated on accuracy and completeness of the 3-D models along with the proper application of orthographic projection and dimensioning rules.

DESKTOP PRESENTATIONS (Levels 2 & 4)

Description – Teams will design original slide shows using text and graphics to achieve the project's objectives.

Hardware/Software – Teams may use their choice of software, prepared and original photos, clip art, logos, animations, video and audio clips. Scanners, cameras, mobile devices and online resources can be used. Earphones are recommended but not required. Dictionaries and/or spell check programs may be used.

Internet Access – Can be used for challenge completion.

Helpful tools – Microsoft Office (PowerPoint, etc.), Adobe Creative Suite (Photoshop, Flash, Dreamweaver, etc.), PaintShop Pro, Astound, HyperStudio, etc.

Judging – At the end of the contest time, teams should save their work and upload their work in **PDF, JPG or PNG** to the GCC Google Drive folder along with any added instructions needed for the Judges. The work should be saved to a Microsoft Office Suite format.

Criteria – Solutions must meet the problem's requirements and will be evaluated for achievement of stated objectives

DESKTOP PUBLISHING (Level 2)

Description – Teams will design a publication using their choice of software and clip art.

Hardware/Software – Dictionaries and/or spell check programs may be used. Additional clip art packages, scanners, and digital cameras can be used, but will not be graded any higher than simple clip art.

Internet – Optional to access additional clipart, use web or server-based software, or to download sponsor logos.

Helpful tools – Adobe Creative Suite (Photoshop, Illustrator, Dreamweaver), Microsoft Office (Word, PowerPoint, Publisher), Classroom Publisher, PrintShop, Writing Center, PaintShop, QuickTime, Pages, etc.

Criteria – Solutions will be evaluated on originality, creativity, fulfillment of the problem's requirements, and effective use of the computer.

GRAPHIC DESIGN (Levels 2 & 4)

Description – Teams will create visual solutions to various problems using their choice of graphics software.

Hardware/Software - Some problems may allow the use of scanners or digital cameras.

Internet – Optional to access web information for background research related to assigned problems, use web or server-based software, or to download sponsor logos.

Helpful tools – Adobe Creative Suite (Illustrator, PhotoShop, InDesign, Dreamweaver, Flash), Microsoft Office (Word, PowerPoint), Painter, Print Shop, Easy Color Paint, Expert Paint, KidPix, PaintBrush, PowerPaint, Morph, SuperPaint, SuperPoint, Deluxe Paint, PaintShop, etc.

Judging – At the end of the contest time, teams should save their work and upload it to the GCC Google Drive folder along with any other information needed for the judges to view work.

Criteria – Solutions will be evaluated on originality, creativity, fulfillment of the problem's requirements, and effective use of the computer.

INTEGRATED APPLICATIONS (Level 4)

Description - Teams will integrate word processing, database, and spreadsheet applications to create solutions to various problems.

Hardware/Software - ASCII delimited data files will be provided. Contestants should not type in data.

Internet Access - Prohibited

Helpful tools - Microsoft Office (Excel, Access, Word, Publisher, etc.), Quatro Pro, Adobe Creative Suite, etc.

Judging - All information used in a database, spreadsheet, or word processor should be saved in separate files.

Criteria - Your team must use at least two separate applications (both may be a part of a single suite of applications). Solutions will be evaluated on the team's ability to obtain the correct outcome, as well as the methods used to integrate data between applications.

INTERNET SCAVENGER HUNT (Level 2)

Description - Teams will be given an online scavenger hunt to complete online using Internet Explorer, Firefox, or Chrome as the browser.

Hardware/Software - Any computer, Mac or Windows with Microsoft Word.

Internet Access - Allowed

Judging - URLs are required.

Criteria - Solutions will be evaluated on answers to Scavenger Hunt questions and methods used to obtain information. Team members will be judged on the quality of their responses.

OBJECT-ORIENTED BUSINESS PROGRAMMING (Level 4)

Description - Teams will solve a selection of programming problems using their choice of Visual Programming or JAVA programming languages.

Hardware/Software - Editors are allowed.

Internet - Not needed for challenge completion

Helpful tools and skills - Visual Studio QBasic, True Basic, MS Basic, Quick Basic, Visual Basic, C++, C#, JCreator for IDE, Java IDE, SunJAVA, HTML, BlueJ, Eclipse, DevCPP, JAVA, etc.

Judging - Judges will evaluate a copy of the program code on the screen as well as the program execution. Each programming language will be judged separately. At the end of the contest time, contestants must let a judge into their breakout Zoom room to view the program run. All programs must be saved to the results folder. Partial solutions will be judged.

Criteria - Solutions will be evaluated on operability, user-friendliness, clarity, organization, structure, utility, creativity, and fulfillment of the problem's requirements. Each problem has a different point value, and the winner is chosen based on the total number of points earned.

SCIENTIFIC/NON-BUSINESS PROGRAMMING (Level 4)

Description - Teams will solve a selection of programming problems using their choice of programming languages.

Internet Access - Prohibited

Helpful tools and skills - Python, Dev-C++, Eclipse, C#, C++, Visual C#, etc.

Judging - Judges will evaluate a screen copy of the program code and the program execution. Each programming language will be judged separately.

Criteria - Solutions will be evaluated on operability, user-friendliness, clarity, organization, structure, utility, creativity, and fulfillment of the problem's requirements.

VISUAL PROGRAMMING/BLOCK CODING (Level 2)

Description - Teams will create a digital story or a game using Scratch.

Hardware/Software - Dictionaries and/or spell check programs may be used. Blank storyboards are allowed. Earphones recommended but not required.

Internet Access – Prohibited

Helpful tools - Scratch

Judging - At the end of the contest time, contestants should save their work and leave it up on their computer screen. The judges will evaluate the solution from the screen. Teams will be disqualified if they use an existing Scratch Jr Project.

Criteria - Solutions will be evaluated on creativity, originality, demonstration of technology skill, programming practices, and fulfillment of the problem's requirements.

WEB DESIGN (Level 4)

Description - Teams will create a web page.

Hardware/Software - Each team must provide their own tools, including a web browser, to create the web page(s). Teams may use an editor or raw HTML.

Internet Access – optional to access additional clip art but using code from the internet for web design is strictly prohibited. Computer must have wireless capability.

Helpful tools - Adobe Creative Suite (Photoshop, Illustrator, Dreamweaver, etc.), Notepad, Macromedia, JavaScript, HTML, Microsoft Office (Word, Publisher, etc.), iWeb, etc.

Judging - Teams will be disqualified if they use existing web pages. Please leave the completed judging form by the computer.

Criteria - Solutions will be evaluated on originality and creativity of the web page.