



OVERVIEW

Student teams develop an E10+ arcade game that answers the driving question: *How can we as arcade game designers create a game that showcases the best of Chattanooga?* The game should be engaging, fun, aesthetically appealing, and challenging. It should include high levels of artistic, educational, and social impact. All components of the game must be appropriate for the HCDE community. A working, interactive arcade game will be presented for demonstration and play at the Arcade Architects annual event.

PURPOSE

Arcade game design requires the authentic application of 21st century skills. Students will engage in complex educational tasks, deliver contextually relevant artistic components, and develop and demonstrate a wide range of technical skills. The design competition serves a culturally relevant hook that engages all students in meaningful work. Capitalizing on student interest in gaming, Arcade Architects gives students a relevant forum to develop critical skills that can be applied across STEAM disciplines. Not only does game design give students a unique opportunity to develop complex problem solving skills, the intellectual nature of the work also empowers students to have robust opportunities to utilize the foundational skills they are acquiring in core content classes.

ELIGIBLE TEAMS

Design teams should be comprised of two to four students from the same school. Prizes will be awarded in three divisions based on grade-level: 3-5, 6-8, and 9-12. Schools are permitted to submit up to 10 teams. If schools have more than 10 teams, they are encouraged to hold an internal competition to identify their top teams, prior to the submission deadline.

TIMING

1. Entries must be developed during the current school year.
2. Judges will play each game for up to 5 minutes.
3. Agenda for the event:

9:00 - 10:00	Arcade set up
10:00 - 11:30	Arcade opens to community and judging begins
11:45 - 12:00	Award ceremony
12:00 - 12:30	The arcade closes and teams clean up their tables

ATTIRE

During the Arcade Architects showcase, students and team sponsors are expected to dress appropriately for a public event. Cosplay and team spirit wear is encouraged, but all cosplay should be appropriate for children of all ages and reflective of games designed within the E10+ ESRB guidelines.

TEAM PROCEDURES

1. Teams will check in the morning of the showcase at 9:00 AM.
2. Once the arcade opens up the student team members should remain at their booth until the judges have visited. Then, teams are encouraged to visit other booths and play their games.
3. All teams will gather at 11:45 for the awards ceremony.
4. Teams are encouraged to keep at least one member at their booth throughout the day in order to explain the work and the game to patrons visiting their booth.
5. Teams and team sponsors are expected to clean up their booths and have all equipment and materials removed by 12:30.

REGULATIONS

1. The game should be complete and functional prior to the event date.
2. The game must be rated E10+ according to the ESRB rating guidelines.
3. The game should be **original student work** and compliant with existing copyright laws.
4. Games should be playable and games should be capable of being played without any assistance or instruction from the team.
5. Entries must be a team project with significant contributions made by each team member.
6. Any intellectual property generated through the event shall be subject to the existing guidelines according to Hamilton County Schools.
7. The game must include original work designed and created by the students, but elements (including game architecture, engines, graphics, and sounds) may be used from other sources. However, work that is not created by the team must have proper documentation, show copyright permissions and/or license for usage in the game.
8. Each team must create documentation items (contained in a "portfolio") that shall be available in printed form at each booth during the judging phase of the competition. The portfolio should be secured in a clear front report cover and must include the following 8.5" x 11" pages in this order:
 - a. Title page with the game title, school name, team name, and student names
 - b. Table of contents
 - c. Purpose and description of game, including target audience (≤ 1 page)
 - d. A detailed explanation of how to play the game, including a list of all control functions

- e. Team's self-evaluation of the design process based off that portion of the judges rubric
- f. A storyboard from the game design
- g. List of hardware and software used in development of the game, as well as the cost of materials used
- h. List of references that includes sources for materials (copyrighted or otherwise)
- i. Permission letters for use of copyrighted materials (as needed)
- j. A list of anything in the game not created by the team
- k. Evidence that the team has tested the game (i.e. screenshots, photos of the team testing the game, design decisions informed by the testing phase)
- l. Plan of work log that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments (see Plan of Work log in this document).
- m. Completed and signed Student Copyright Checklist

EVALUATION

Each game submitted will be evaluated according the Arcade Architects Rubric contained in this document. Prizes will be awarded to first, second, and third place teams in each grade level category (3-5, 6-8, 9-12) according to the scores. While each school is encouraged to have multiple teams enter the event, no more than one prize will be awarded to any given school.

STEAM INTEGRATION

Arcade Architects aligns with the STEAM educational standards noted below.

Leadership and 21st Century Skills

Skills developed through Arcade Architects include:

- Communication
- Collaboration
- Creative Thinking
- Critical Thinking
- Evaluation
- Innovation
- Organization

CAREERS RELATED TO ARCADE ARCHITECTS

- Animator
- Audio Producer
- Community Coordinator
- Game Developer
- Graphic Designer
- Market Analyst
- Marketing Manager
- Programmer
- Production Manager
- Project Manager
- Technical Writer
- Software Engineer
- Systems Engineer
- Visual Art Designer

Student Copyright Checklist

for students to complete and advisors to verify

1) **Does your submission to the Arcade Architects integrate any music?** YES _____ NO _____

If NO, go to question 2.

If YES, is the music copyrighted? YES _____ NO _____

If YES, move to question 1A. If NO, move to question 1B.

1A) Have you asked for author permission to use the music in your solution and included that permission (letter/form) in your documentation? If YES, move to question 2. If NO, ask for permission (OR use royalty free/your own original music) and if permission is granted, include the permission in your documentation.

1B) Is the music royalty free, or did you create the music yourself? If YES, cite the royalty free music OR your original music properly in your documentation.

TEAM SPONSOR: Sign below if your student has integrated any music into his/her competitive event solution.

I, _____ (team sponsor), have checked my student's solution and confirm that the use of music is done so with proper permission and is cited correctly in the student's documentation.

2) **Does your submission to Arcade Architects integrate any graphics?** YES _____ NO _____

If NO, go to question 3.

If YES, is the graphic copyrighted, registered and/or trademarked? YES _____ NO _____

If YES, move to question 2A.

If NO, move to question 2B.

2A) Have you asked for author permission to use the graphic in your solution and included that permission (letter/ form) in your documentation? If YES, move to question 3. If NO, ask for permission (OR use royalty free/your own original graphic) and if permission is granted, include the permission in your documentation.

2B) Is the graphic royalty free, or did you create your own graphic? If YES, cite the royalty free graphic OR your own original graphic properly in your documentation.

TEAM SPONSOR: Sign below if your student has integrated any graphics into his/her competitive event solution.

I, _____ (team sponsor), have checked my student's solution and confirm that the use of graphics is done so with proper permission and is cited correctly in the student's documentation.

3) **Does your submission to the Arcade Architects use another's thoughts or research?** YES _____ NO _____

If NO, this is the end of the checklist.

If YES, have you properly cited other's thoughts or research in your documentation?

If YES, this is the end of the checklist.

If NO, properly cite the thoughts/research of others in your documentation.

TEAM SPONSOR: Sign below if your student has integrated any thoughts/research of others into his/her competitive event solution.

I, _____ (team sponsor), have checked my student's solution and confirm that the use of the thoughts/research of others is done so with proper permission and is cited correctly in the student's documentation.

Arcade Architects Plan of Work

Date	Task	Time involved	Team member responsibilities	Comments
1				
2				
3				
4				
5				
6.				

Arcade Architects Team Sponsor signature _____