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{STEEL CITY CODES}

Starting a Chapter
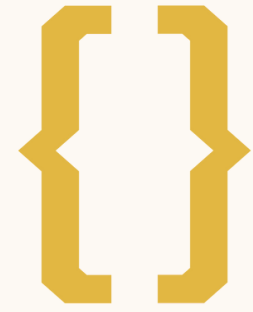
A computer science 501(c)(3) nonprofit.

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A Message from the Executive Team

Hello!

We're so glad you're interested in starting a chapter with Steel City Codes! It takes motivated and passionate students, like you, to help us spread our mission of increasing computer-science literacy around the world. From everyone here at Steel City Codes, we want to thank you for wanting to play a role in shaping the futures of younger children.

We really appreciate all of your enthusiasm and can't wait to help you get started. We've created this "Starting a Chapter" packet to help make the process as seamless as possible. We've had tons of experience ourselves, and we've included all of that in this packet. Please read through the following pages for all of our best guidance and advice, and as always, you can reach out to contact@steelcitycodes.org if you have any further questions. We look forward to teaching computer science -- one student at a time -- right alongside you and are excited for everything to come!

Sincerely,
Steel City Codes

What is Steel City Codes?

Our History

Steel City Codes is a 100% student-led, registered 501(c)(3) nonprofit organization originally founded in Pittsburgh, Pennsylvania in 2017. Since then, we have expanded to over a dozen regions across the state and nation, including Philadelphia, New York City, Denver, San Francisco, Houston, and more!

Our Mission

Steel City Codes aims to provide cost-free educational opportunities in computer science (CS) to all students of all backgrounds, with a focus on underprivileged and underrepresented students in the field.

As our society continues to become increasingly digitized, it subsequently relies on different skill sets that are lacking in what many schools currently offer. Students are already disadvantaged before entering college and the job market as they lack in-demand skills, specifically programming and other computer-related techniques. *In fact, over 32% of workers aged 16-29 lack any work-related CS skills.*

Not all schools offer CS classes due to a lack of knowledge, funding, or resources in general. Because of this, students often lack exposure to CS and miss out on opportunities to learn or further pursue their interests in technology-based disciplines.

Steel City Codes was designed to fill this void and give students exposure early on. Our main offerings include cost-free summer camps, after-school chapters, and other opportunities that allow elementary and middle school students to gain proficiency in practical coding languages.

We pride ourselves on student empowerment; we teach using a method of peer-mentorship in which high school student leaders teach our younger students. We want to empower young people, both teachers and students with necessary skills to make a lasting impact on the world.

Starting a chapter at your school is a streamlined process and will be invaluable to your students for years to come.

For more information on our organization, feel free to check out our website: https://www.steelcitycodes.org/.

What are Our Chapters Like?

Steel City Codes chapters occur after-school throughout the year. Every week, classes meet for one-hour sessions, where high school mentors teach groups of three to five students to code in Java or Python using a curriculum designed by Steel City Codes. Our chapters are fit for both inexperienced and experienced CS students!

Through our chapters, we strive to fulfill our mission by providing free computer science opportunities and preparing students with the necessary skill set to consider a career involving CS.

Why Start a Chapter?

Serving as a Steel City Codes chapter head is a great opportunity to demonstrate your leadership skills. As a chapter head, you will serve as a mentor to elementary/middle school students and learn to effectively communicate with students, parents, and other high schoolers.

Other benefits include gaining service hours, demonstrating experience in Computer Science, building your resume, giving back to the community, and networking with high schoolers from around the nation!

Benefits of a SCC Chapter

Over the past five years, Steel City Codes has gained valuable experience teaching CS to thousands of students. In starting a chapter, we will provide you with:

1 **Curricula**: We have original curricula, learning materials, and problem sets that were designed specifically for young students and are made so that the teaching process for high school volunteers is even easier. We will be able to provide you with all the materials you need to start a chapter for your area as well as a teaching orientation to give you our advice on the best way to approach teaching elementary and middle school students.

Currently, we offer curricula in the following areas:
1. Python: Intro
2. Python: Intermediate
3. Python: Advanced (Project-Based)
4. Java: Intro
5. Java: Intermediate
6. Java: Advanced (Project-Based)
7. Web Development
8. GirlsHack (Website development to empower girls)

2 **Guidance:** We will walk you through every step of the way in organizing a chapter and help work out any issues that may arise. Steel City Codes is an advocate of mentorship, and we will be assigning one member of our Executive Team to help ease the process of starting a new chapter. We also schedule weekly to bi-weekly (every two weeks) check-ins with every chapter to constantly ensure everything is running smoothly.

Moreover, we can guide you through all of the other larger logistical details. From registration forms, medical forms, release & liability forms, and legal matters, our team will be alongside your chapter every step of the way.

The best way to reach anyone on the executive team is through our Slack workspace, and as part of our organization, you'll be able to reach out to us for guidance and also communicate with other chapter heads. We encourage communication and collaboration as it makes the process much easier for everyone involved!

3 **Funding**: In case there may be any unforeseen costs (supplies, materials, etc.), our organization has funding that can cover those costs. Steel City Codes can provide the financial backing, so you can get your chapter off the ground without having to worry about smaller details. To date, Steel City Codes has been sponsored by MRI, AT&T, CGI, ArgoAI, Eaton, Carnegie Mellon, Schell Games, and Mylan (among many other companies).

4 **Press**: Our organization has regional connections to help your chapter get media coverage, guest speakers, and anything else that you might need. Starting a Steel City Codes chapter and affiliating with a larger organization is a great way to get publicity right away.

Virtual Chapters and Chapters in Alternative Locations

Virtual Chapters

Holding a chapter online is another great way to spread computer science education! Virtual chapters bring CS education to students who don't have an in-person chapter at their school. Online classes can be joined from any location, expanding the range of students you can reach. Steel City Codes' virtual chapters are held over Zoom, and we will provide you with a zoom license. Providing opportunities to students regardless of their location is an important aspect of our mission!

Chapters in Alternative Locations

Chapters can be held at locations other than schools! Any safe accessible community space where students have access to computers and a stable internet connection is a great location for a chapter. Examples of alternative chapter locations are libraries and community centers.

One of the best ways to reserve one of these locations is to speak with the manager. This allows you to collaborate with the institution for outreach and anything else you might need. Reserving a location through a web portal is an alternative way to book a space.

If you're starting an in-person chapter in a location other than a school, keep in mind that Steel City Codes provides insurance for these alternative venues. Chapters held in community spaces can reach any student in the surrounding area, spreading computer science education to a wider range of students!

Chapter Head Responsibilities

As a chapter head, your main job is to make sure your chapter is running smoothly. This responsibility includes:

- Organizing, teaching, and planning the chapter
- Ensuring students are enjoying their classes
- Properly communicating information about the chapter and other updates to parents
- Overseeing interactions between volunteers/instructors and students

Necessary Skills

There are a few crucial skills that will help chapter heads succeed in opening a chapter.

Chapter heads should be independent and self-driven. Starting a chapter may initially seem difficult, but it's worth it in the end! They should be able to set goals for yourself and take the initiative to constantly find ways to improve your chapter.

Chapter heads should also be punctual and responsive. As a chapter head, they are in constant communication with members of the Executive Team, regional directors, volunteers, students, and parents. It is important to stay up-to-date with the chapter and promptly respond to all communications.
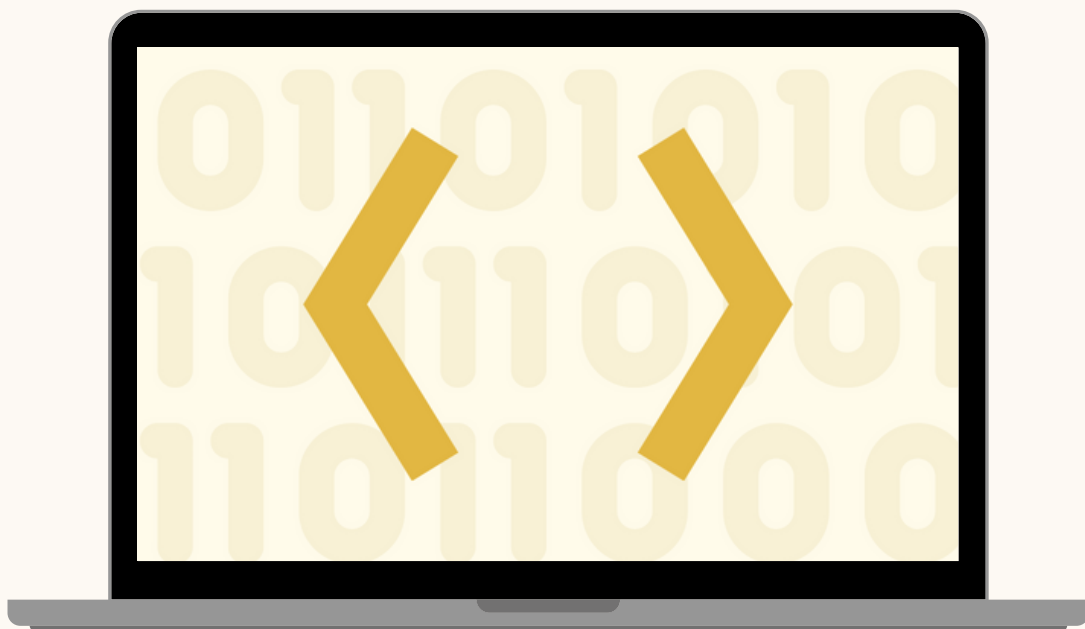
Lastly, chapter heads should have passion for their work! Chapters work best when their chapter heads truly want to give back to the community and provide quality computer science education to students in their area.

Although there are a lot of qualifications, the Executive Team as well as the regional director(s) are here to help you every step of the way! You will constantly be building on your skills as a leader during your time as a chapter head at Steel City Codes.

Time Commitment

The time commitment as a chapter head differs depending on how far along you are in your chapter, but on average, chapter heads spend about three to five hours a week working on Steel City Codes-related responsibilities. Once chapters are running smoothly, chapter heads typically have a smaller time commitment.

Having 2-3 chapter heads per chapter can also help decrease this overall time commitment. Start a chapter with your fellow computer science enthusiasts!

Starting a New Chapter

Starting a chapter is a simple process, and as always, our team will work with you every step of the way.

Step 1: Confirm that Your Chapter Meets Steel City Codes Requirements
Chapters must be started by (a) high school student(s) (grades 9-12) at an elementary or middle school in their area.

Step 2: Officially Request to Start a Chapter
Now, you can get the official process rolling by filling out our **Chapter Request Form**. You'll be contacted by a Steel City Codes liaison within one week to guide you through the next steps in starting your new chapter. If you're starting a virtual chapter, the liaison will provide you with a separate instruction list.

Step 3: Locate and Obtain the Approval of the Elementary/Middle School Where You Want to Start the Chapter
Once your chapter meets the Steel City Codes requirements and gains the approval of our team, the next step is to ensure you have the support of the leadership group of the school your chapter will be located in. For reaching out to elementary and middle schools, you can usually gain approval from the principal. We encourage you to reach out to schools located in underserved communities. These areas might have demographics that are underrepresented in STEM and Steel City Codes could provide them with a life changing experience by exposing them to computer science.

Step 4: Find a Sponsoring Teacher
A sponsoring teacher will be in charge of merely supervising the after school sessions of the chapter where volunteers will be doing all of the teaching. Since Steel City Codes is student led, state law requires that a supervising adult over the age of 18 oversees all after-school sessions.

Step 5: Obtain a Classroom to use for After-School Sessions
Now that you have a sponsoring teacher, the next step is to find a classroom to use. Schools are usually pretty accommodating with this, but we would recommend utilizing a computer lab if your school has one. This takes care of obtaining access to laptops as well.

If your school doesn't have a computer lab or it's unavailable, you can always utilize your sponsoring teacher's classroom to hold sessions.

Step 6: Secure Access to Laptops or Another Form of Technology
Programming is all about computers, and thus, computers (and obviously internet access) are necessary for a successful chapter. If you have access to a computer lab, this step is already taken care of.

Otherwise, however, there are still other solutions. Many schools have laptop/iPad carts for their elementary and middle school students or, in schools with more resources, will provide their students with personal devices. If the former is the case, talk to your school's technology administrator to gain access to the laptop/iPad carts. For the latter, you simply need to remind students to bring their school-issued devices every time your chapter meets.

If your school does not have any of the solutions mentioned above, Steel City Codes does have a limited amount of funding. Reach out to the Executive Team at contact@steelcitycodes.org, and we will do our best to work with you to find a solution.

Step 7: Publicize the Chapter to the Students of the Elementary/Middle School and Get Students to Sign Up for the Chapter
From our experience, the best way to publicize offerings is through personal contact or through reaching out to faculty at the intended school. The elementary/middle school students involved in your chapter should preferably range from grades 3-8.

Emailing teachers to spend 10 minutes talking about your newly-founded Steel City Codes chapter is a powerful way of garnering students' interests. However, since the target demographic of our offerings is very young, it is also important to reach out to parents. You can achieve this by either reaching out to the school principal to email out this offering to all parents, or you can contact teachers individually to email the parents of their homeroom classes. You can reach out to Steel City Codes to get templates for all emails mentioned.

Steel City Codes will provide your chapter with a copy of our student registration form that you can encourage all interested students (or their parents) to fill out.

Step 8: Recruit Volunteer High School Students to Serve as Teachers
Since chapters are 100% student-led, more high schoolers are required to teach the younger students involved in the chapter. It is part of the chapter head's responsibility to recruit high school students as volunteer teachers. We usually recommend chapter heads to strive for a teacher to student ratio of 1:4 when recruiting volunteer high school students.

Recruiting volunteer high school students is similar to recruiting elementary/middle school students.

From experience, the most effective way for us has been to reach out to high school CS teachers to inform their classes of this volunteer opportunity or to contact our high school principals to send out an email to all HS students. We have also found social media to be a powerful tool. Making a post about your Steel City Codes Chapter or featuring it on your Instagram story is a great way to get the word out. Again, you can reach out to Steel City Codes to get templates for all emails mentioned.

Steel City Codes will provide your chapter with a copy of our teacher application form that you can encourage all interested high schoolers to fill out.

Step 9: Figure out the Best Days of the Week to Hold Your After-School Sessions

We would recommend figuring out days to hold around 1-2 after-school sessions per week. The best days of the week to hold your after-school sessions are dependent on a lot of variables, including the sponsoring teacher, volunteer high school students, elementary/middle school students, and the availability of devices/classrooms at your intended school. We would recommend sending out an interest form to gauge what days work best for the chapter as a whole. Be sure to take into consideration the other clubs/activities that your students might be involved in.
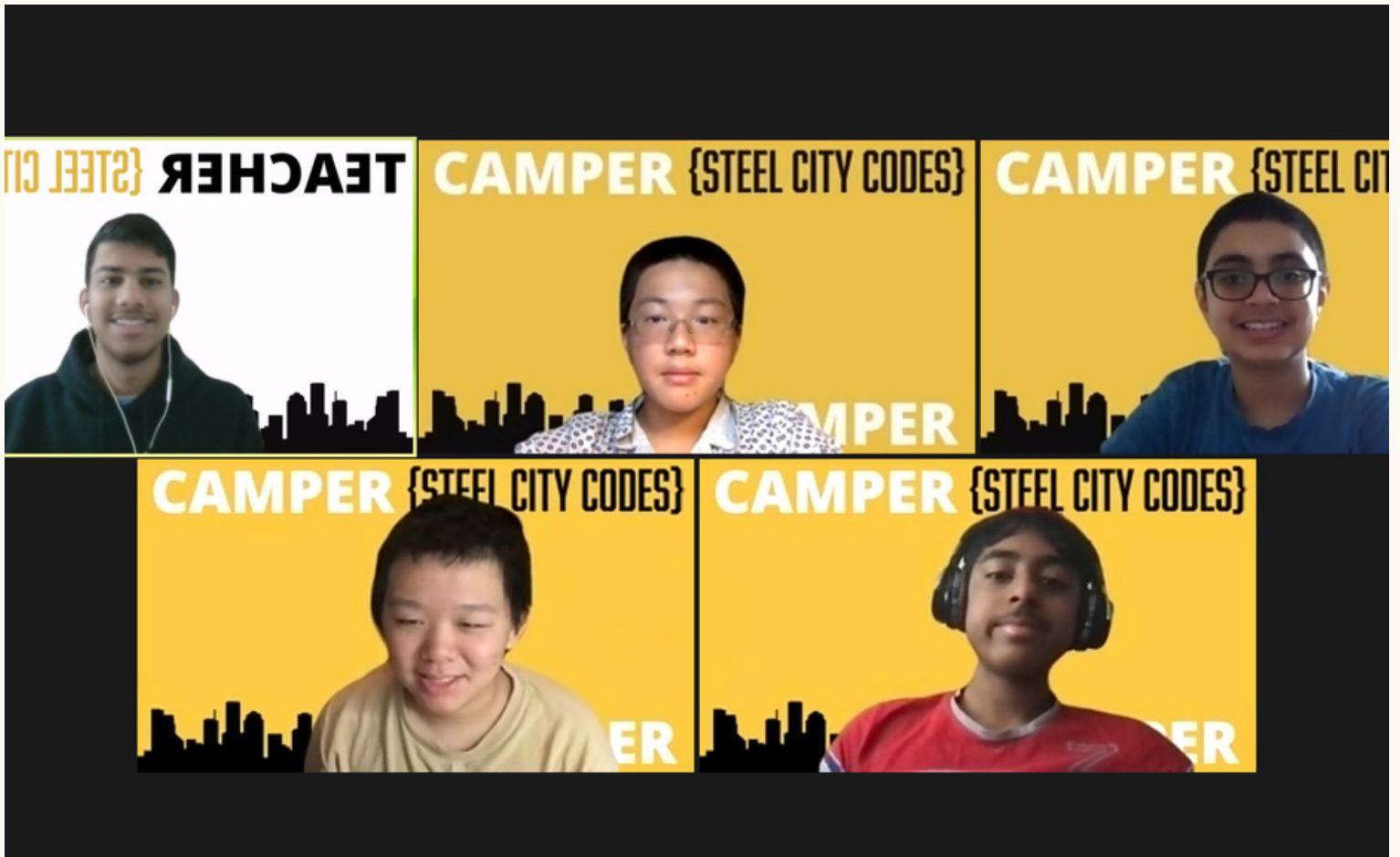
Step 10: Reach Out to a Member of the Executive Team

Once everything on the chapter head's end is covered, reach out to a member of the Executive Team so that we can make sure that everything is covered for you to start a chapter. From there, you can leave the rest of the logistical stuff to us! We will provide your chapter with the needed curricula (as well as a teacher training session) and other forms.

Step 11: Start teaching!

You're now ready to hold your first after-school session! Throughout the whole process, make sure to maintain a steady flow of information between all volunteers, students, parents, and the sponsoring teacher. Our curricula can help teach your students the concepts, but we also largely emphasize problem sets and projects. This is a great way to solidify all of the concepts for your students.

If you have any questions or concerns throughout the rest of the year, don't hesitate to reach out to us. Thank you for sharing your passion for Computer Science, and thank you for helping us shape the futures of younger students!

Frequently Asked Questions

Q: What are the costs associated with starting a Steel City Codes chapter?

Starting a Steel City Codes chapter should cost $0 out-of-pocket for you as a chapter head. If, however, you do run into instances where you need funding, by starting a chapter with Steel City Codes, you have also gained access to our larger organization's funding. We can also work with you to fundraise and obtain sponsorships in your area.

Q: What is the approval process, and how long does it take?

Once we receive an official request to start a chapter, our team will meet to review the request. Approvals typically will take less than one week. If you have not yet received your approval, please reach out to us again at contact@steelcitycodes.org.

Q: Can my private or charter school start a Steel City Codes chapter?

While Steel City Codes focuses on extending CS opportunities to underprivileged and underrepresented youth, we want to promote CS education as much as possible. If you go to a private/charter school and are interested in starting a chapter, we would definitely encourage you to start a new chapter, but as a chapter head, you could also help out your area by working with the Steel City Codes team to coordinate some offerings for more underprivileged areas in your county.

Q: Are there any geographical requirements for starting a chapter?

There are no geographical requirements or limitations for starting a chapter. Steel City Codes is currently working on expanding across the nation, and we would love to welcome all students and areas to the Steel City Codes team.

Q: How can I share the importance of a Steel City Codes chapter to my intended school's administrator or seek their approval?

Since Steel City Codes is a nonprofit organization focused on education, many of our values and goals will align with your school district's as well. If you run into any problems getting approval from your school's administrator, reach out to us, and we can provide you with a template email explaining the purpose and mission of Steel City Codes. Steel City Codes will always support your school's educational initiatives.

Q: How many after-school sessions should my chapter hold per week?

We usually encourage our chapter heads to hold 1-2 after-school sessions per week.

Q: How long should each after-school session last?

We usually encourage our chapters to lead after-school sessions that last around 1 hour each. However, if you have students who are especially engaged, this is not a hard-and-fast rule, and you can definitely hold longer sessions.

Q: What are some other ways to further the mission of Steel City Codes as a chapter head?

As a chapter head, you will eventually earn the opportunity to apply for even higher positions, including Regional Director positions. In addition to chapters, Steel City Codes runs 1-week long summer camps every year, and if you're in a region other than Pittsburgh, you can help us coordinate your area's own summer camps.