



The Caltech Y RISE PROGRAM

www.caltechy.org | [@caltechy](https://twitter.com/caltechy) | [#caltechyRise](https://twitter.com/caltechyRise)

Mentoring Students

Tutor-Led Workshop with Rise Program Tutors, Nancy Thomas (Caltech Graduate Student) and Aishwarya Nene (Caltech Undergraduate Student)

Nancy Thomas, Rise Program Tutor

- Study skills
 - The more time you spend showing and teaching your students how to study, the better prepared they are to do the work themselves and be independent learners. At the beginning of the year, I frequently intersperse tutoring with questions on how they study – do you take notes in class? How did you prepare for this exam? Do you do practice questions? Etc. By the middle-end of the tutoring year, you can then develop an idea of what has worked well (or not!) for the student and then begin to give them suggestions based on their learning style. Important to tailor to the specific student. Some are more visual learners – maybe a note sheet would be helpful. Others learn well by repetition – have them drill a bunch of problems.
 - One study habit I make all my students do is keep a “note sheet” – or review sheet of all the important math equations or “rules” that they should know. When we come across a concept that they struggle with or an equation they need to memorize etc., I make them write it down on the “note sheet” I start with them at the beginning of the year and then when the concept comes up again in subsequent weeks, I have them pull out the note sheet and use their “rule” or equation to solve the problem.

- Planning strategies
 - I usually start all of my tutoring sessions by making my students give a recap of all the homework, quizzes, and tests they had in the previous week. I either then ask or end tutoring by asking what they have upcoming next week. This helps students continuously think strategically about their work and planning their upcoming week. We spend some time talking out how they will distribute their time and get all the work they need to do done that week.
 - In college, one of the most overwhelming challenges is the freedom of schedule. By instilling good time use practices early during tutoring, the student won't feel so overwhelmed when they get to college.
 - Another helpful social/mentoring thing to do is ask what regular after school activities they have. This builds a bonding connection – you can ask them how soccer is going, if they won their last game, how the play went, etc. – and allows you to talk about how the student is going to plan around that time commitment.
 - I frequently ask students what their favorite class right now is. For some students it's always the same answer – history, science, etc. For other students, their answer changes based on how the teacher is or what types of projects/assignments they have. Either way, this can be telling and allow you to subtly hint/point them in the direction of what types of things they might enjoy in college.



The Caltech Y RISE PROGRAM

www.caltechy.org | [@caltechy](https://twitter.com/caltechy) | [#caltechyRise](https://twitter.com/caltechyRise)

- For mentoring/bonding and general encouragement of careers in science, I sometimes find ways of using my research or relevant things to my work as examples in their problems. If it is a word problem, I'll use Mars as an example. One of my students was learning about "sublimation" the other day and I taught her the concept by talking about the martian polar ice caps – this led to a discussion on how we know what the ice caps were made of and I got to discuss my research. The students actually enjoy hearing you excited/passionate about your work – showing them how cool you think research/science is and the excitement encourages them to pursue that as a career. They can then ask you questions about how you got started in the field, etc. etc.
- Don't be afraid to talk about yourselves a little. After asking them questions (what's your favorite class, did you watch the dodgers game, what are you doing for Halloween, etc. etc.). I usually tell them what's going on in my life and details about myself – that helps build a relationship and give you common interests to talk about. My first year it was frequently girly clothes, etc. things and last year with my two 7th grade boys I talked about sports every week – I impressed them with my knowledge of football and basketball. This gave a jumping off point for conversation which allowed me to get to know them more, chat and give general advice.

Aishwarya Nene, Rise Program Tutor

Getting students to do work on their own:

1. Let them set the pace.
2. Ask them what they want to accomplish.
3. Never give them the answer. First ask them what they think.
4. Ask them to explain concepts to you.
5. Make it more interesting.
6. If you have 2 students let them teach each other sometimes

Mentorship:

1. Show you care (to what level is appropriate)

Offer them a way to contact you

McKenzie: met on weekends before exam, Faith: read her college essays

2. Let them talk about their life or to other students and listen

Ingrid: trouble with stress, not making time for herself

3. Ask them about college

-Ask what they are looking for

-Identify resources for them (college counselor at their school)

4. Help them with SAT/ACT college prep

-Carve out time

-Prioritize according to time line

5. Talk about a future career. Their long-term goals

6. Talk about yourself. Not comfortable taking advice until they know you.