What’s Next?

Opportunities After BEAM 6
In 7th Grade

Explore!

Try out lots of things. Take risks. Seventh grade is a great time to see what kinds of things you like learning and doing.

Get Top Grades

Going to a top high school makes a big difference to your opportunities, and many high schools look at grades to decide admission. The better your grades, the better your chances!

Remember: your high school determines what kinds of classes you have access to before college, so be ready for that choice!

Do not have more than 10 absences/latenesses for the year

No matter how good your grades are, some high schools won’t take you if they don’t think you take school seriously. (If the absences are for medical reasons, you may be able to explain that to high schools.)

Keep Stretching

Find the programs in the summer and during the year that will help you grow. Apply and try them out!
Your Application Plan

In the rest of this packet, there are descriptions of lots of good programs you could apply to. Some of these are summer programs, some of them are year-round, some focus on math, and others focus on other things. Here is what you should do:

1. Read through all of the descriptions with a parent.
2. Decide which are interesting to you.
3. Write the programs you want to apply to in the table below, with their deadlines.
4. Put it on your refrigerator or somewhere you’ll see it, so that you don’t forget to apply to them!

Your Top Programs

<table>
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<th>Name of Program</th>
<th>When to apply?</th>
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Programs
BEAM 7

What it is

BEAM 7 has two parts. The first is the summer: you’re invited to live on a college campus for three weeks learning advanced math with your friends from BEAM. You’ll live in the college dorms, take advanced classes on campus, and eat in the college cafeteria. The second part is mentoring and support, which BEAM provides for the next five years. You’ll get help with getting into top high schools, other summer programs, and colleges; you’ll also get opportunities like trips to visit Google, Microsoft, or Yale University, and all kinds of workshops that help you get ready for the future.

Great things about this program:

- This is the best opportunity to study more advanced mathematics. BEAM 7 is a level up from BEAM 6.
- We’ll support you all the way through the end of high school.

Downsides of this program:

- BEAM’s focus is math, and how math is used in science, engineering, or to understand society. If you’re not that interested in math, BEAM may not be the best environment. You’ll be doing 7 hours of math a day, so this is only for you if you are ready to do lots more math than at BEAM 6.
- You need to advocate for yourself and come to our events during 8th grade and high school. If you don’t, then you won’t get a lot of the benefits.

To apply, you must…

- Have attended BEAM 6 OR be nominated by a partner school OR meet certain income qualifications.

You’d be a good candidate for this program if…

- You enjoyed BEAM 6 and did well there.
• You enjoy doing interesting math (like BEAM 6) and want to do more.
• You’ve done more math since the summer. For example, if you’ve done the Challenge Sets, or taken Prealgebra, or kept solving problems on Alcumus, or done a math team, or even if you read math books or watch math videos on your own. You don’t need to do all this stuff, but show us you’re interested!

How and When to Apply

Apply to BEAM 7 in February. We will send you the application when it’s available.

More Information

You can learn more about BEAM 7 on our website:

www.beammath.org
Prep for Prep (Prep 9)

What it is

Prep for Prep helps you to enter into private boarding high schools. If admitted, you will do a 14-month preparation program including two summer programs and year-round prep meeting twice a week. They will prepare you for the admissions tests, help you complete your applications, and get in. They have partnerships guaranteeing financial aid meeting your full need with all their schools.

Great things about this program:

- Going to a boarding school is a tremendous opportunity, and you'll get lots of support and resources.
- They will support you for years to come, through college.

Downsides of this program:

- Prep is better at ELA than math, although the school might have good math.
- There will not be many Black or Latino students at the school you go to, and the culture will be very different from what you are used to.
- Prep is a serious commitment; you must be willing to do extra work throughout the school year to achieve this goal.

To apply, you must...

- Be of African American or Latino descent.
- Have one of the following: a score of 325 or above on the New York State ELA exam; a score of 324 or above on the New York State math exam; or an overall average of 90% or above.

You’d be a good candidate for this program if...

- You enjoy writing and reading, not just math.
- You have good grades in school.
• A couple of teachers really like you, so they can write you letters of recommendation.
• Your parents can be involved in the process. (Parents must also come to interviews and be committed.)

**How and When to Apply**

Apply to Prep for Prep in **October**. The application process involves an exam and an interview. Your parents will need to be involved.

It helps to have a nomination from your school or from us. If your school doesn’t nominate for Prep for Prep, contact BEAM and we can nominate you.

**More Information**

Find more on their website:

[www.prepforprep.org](http://www.prepforprep.org)

**Similar Programs**

Prep for Prep meets on the Upper West Side, which might not be convenient for families in Brooklyn. There are many other similar programs you might consider:

• The **Oliver Scholars Program** meets in downtown Manhattan (and other places in NYC), with similar support to Prep for Prep. They also have some special programming for students in science and math. [http://oliverscholars.org/](http://oliverscholars.org/)

• The **Wadleigh Scholars Program** meets in Harlem. They have somewhat less support than Prep or Oliver, but they have a strong program and require a bit less time. [http://www.wadleighscholarsprogram.org/](http://www.wadleighscholarsprogram.org/)

• **A Better Chance** serves many more students than the others. They provide the resources to help you get into a private school, but they don’t have as much direct programming as the others, so it’s up to you to study, finish the applications, and find the resources to succeed. [http://www.abetterchance.org/](http://www.abetterchance.org/)
Science and Technology Entry Program (STEP)

What it is
STEP programs are run at colleges all across New York State. They’re designed to help underrepresented students to get access to studying science, math, and technology. Each STEP program is different, but most have summer programs and meetings during the year (usually meeting on Saturdays). They usually have field trips and classes taught by college professors. They’re all completely free.

Great things about this program:
- Study lots of different topics and take field trips.
- They run 7th-12th grade, so you can stay involved and get help with college applications and more.
- There’s probably one close to home.

Downsides of this program:
- Not all of the programs are equally good, because each location is run by different people.
- The classes might not be as advanced as other programs (like BEAM 7).

To apply, you must…
- Be in grades 7-12.
- Your family must be low-income, OR you must be Black or African American, American Indian or Alaska Native, or Hispanic or Latino.

You’d be a good candidate for this program if…
- You have good grades in school. (This program does not require grades as high as some other programs.)
- You are really interested in math and science.
- You can reliably come to the program if you get in.

**How and When to Apply**

Each college has different deadlines and takes students at different times. Look at the websites below to figure out which one is best for you.

**More Information**

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<thead>
<tr>
<th>College</th>
<th>Location</th>
<th>Website</th>
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<tr>
<td>Barnard</td>
<td>Morningside Heights/West Harlem (Manhattan)</td>
<td><a href="http://barnard.edu/step">http://barnard.edu/step</a></td>
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<tr>
<td>Baruch College</td>
<td>Midtown East (Manhattan)</td>
<td><a href="http://www.baruch.cuny.edu/step/">http://www.baruch.cuny.edu/step/</a></td>
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<tr>
<td>Fordham University</td>
<td>Two sites: Rose Hill/ Fordham Road (Bronx) and Columbus Circle (Manhattan)</td>
<td><a href="http://www.fordham.edu/info/20964/step">http://www.fordham.edu/info/20964/step</a></td>
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<tr>
<td>John Jay College of Criminal Justice</td>
<td>Midtown West (Manhattan)</td>
<td><a href="http://stepatjohnjay.blogspot.com/">http://stepatjohnjay.blogspot.com/</a></td>
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<tr>
<td>Medgar Evers College</td>
<td>Crown Heights (Brooklyn)</td>
<td><a href="http://www.mec.cuny.edu/schools/SPCD/Academy-for-Youth/STEP.aspx">http://www.mec.cuny.edu/schools/SPCD/Academy-for-Youth/STEP.aspx</a></td>
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<tr>
<td>New York University (NYU)</td>
<td>Greenwich Village (Manhattan)</td>
<td><a href="http://goo.gl/97GYz9">http://goo.gl/97GYz9</a></td>
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<tr>
<td>Queensborough Community College</td>
<td>Bayside (Queens)</td>
<td><a href="http://www.qcc.cuny.edu/step/">http://www.qcc.cuny.edu/step/</a></td>
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<tr>
<td>St. John’s University Queens</td>
<td>Fresh Meadows (Queens)</td>
<td><a href="http://www.stjohns.edu/academics/academic-resources/science-and-technology-entry-program-step">http://www.stjohns.edu/academics/academic-resources/science-and-technology-entry-program-step</a></td>
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Columbia S-PREP

What it is

S-PREP is a STEP program at Columbia University, but specifically focused on medicine. Several BEAM alumni have done it and really liked it. There are classes in all kinds of topics such as Anatomy, Biochemistry, Embryology, Chemistry, Genetics, Neuroscience, Organic Chemistry, Physics, Physiology, Algebra, Geometry, Pre-calculus, and Calculus, as well as SAT Prep courses, college counseling, and trips. You may also be able to apply for programs to do summer research.

Great things about this program:

- Lots of great opportunities at a top university.
- A really great program for someone interested in medicine, being a doctor, or research in health.

Downsides of this program:

- If you want to study something other than medicine, it does not provide as many opportunities.
- There’s only one site; you must be able to get to Columbia’s campus (in Morningside Heights/West Harlem).

To apply, you must…

- Be in grades 7-12.
- Have an 80% average or better, especially in math and science.
- Your family must be low-income, OR you must be Black or African American, American Indian or Alaska Native, or Hispanic or Latino.

You’d be a good candidate for this program if…

- You are reliable and will get to all their events.
- You are interested in medicine or becoming a doctor.
How and When to Apply

Apply to S-PREP in January. This is the application for the summer term. They also have a year-round program, which you apply for in July or August.

More Information

Find more on their website:

HYPOTHEkids
STEAM Up!

What it is

HYPOTHEkids is a program that uses a project-based learning approach to introduce Science, Technology, Engineering, Arts, and Math. They are focused on how to apply science like biology, chemistry, and environmental science to the real world, and you get to learn about them by doing! Each week, you'll get to work on a different project with a group of other kids excited about science, and at the end of the program, you even get to present what you discovered or made to everyone's parents. This middle school program is new this year, but we think their other programs are really great.

Great things about this program:

- You get to learn a lot of science and even some engineering.
- You get to learn by doing things hands-on: instead of going to classes, you'll be building things and trying to create your own project, just like real engineers and scientists.

Downsides of this program:

- This program is new, so we don't know that much about it.

To apply, you must…

- Be in grades 6, 7, 8.

You’d be a good candidate for this program if…

- You really want to learn more science and engineering.
- You want to learn by doing and building stuff yourself.

How and When to Apply

Fill out this form to register:
https://harlembiospace.wufoo.com/forms/so02p6l0pluy1g/

This program costs money, but they have very generous scholarships that cover most of the program. To apply for these, you have to fill out a separate scholarship application, which is released mid-January. Try to fill this out in January to get the best chance of getting a scholarship.

**More Information**

Find more on their website:

http://hypothekids.org
DREAM/Specialized High Schools Institute Summer and Fall Intensive

What it is

In eighth grade, you will have the opportunity to take the Specialized High Schools Admissions Test. This is how they determine who gets into schools like Bronx Science, Brooklyn Tech, and Stuyvesant. The DREAM program is a preparation program to help you do well on this test and get into a good school. It's run by the NYC Department of Education.

Great things about this program:

- The SHSAT is an important test that opens lots of doors; doing well on it will help you a lot.
- This is a reasonable amount of time to spend preparing for the test: it's 38 sessions in the summer and early fall before the test. (Some other programs do years of test prep, which can be a waste of time.)

Downsides of this program:

- It doesn't actually teach you anything new: it’s just test prep, so you’re not actually learning something.
- It can be pretty boring.

To apply, you must…

- Live in or attend school in NYC school districts 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 18, 19, 23, or 32.
- Currently attend a NYCDOE public school, including charters.
- Have scored a 3.1 or higher on the ELA exam and a 4.1 or higher on the math exam in the spring of 6th grade.
Note that this program was new in 2016, so these criteria might change. (For example, they might start taking only low-income students.)

You’d be a good candidate for this program if…

- You want to go to one of the specialized high schools.
- You are willing to put in serious time to study for the SHSAT.

How and When to Apply

Your school can nominate you, or your family can call to sign up. Parents must attend an orientation.

More Information

Find more on their website:

http://schools.nyc.gov/Offices/SHSI/default.htm
HEAF

What it is

HEAF is a program that provides all kinds of enrichment and support throughout middle school and high school. They will help you to get into top New York City high schools; expose you to new ideas and new programs; and support you through high school.

Although HEAF stands for “Harlem Educational Activities Fund”, they also have some programs in Brooklyn, specifically Bed-Stuy.

Great things about this program:

- Lots of support and mentoring.
- Covers lots of different topics.

Downsides of this program:

- The material is not as advanced as some other programs. While they have some science and math stuff, it’s also not as much.
- You need to be able to get to their location in either Harlem or Bed-Stuy.

To apply, you must…

- Be in grades 5-10.
- Have a minimum GPA of 80% with no grade below 75% in a core subject.
- Have good school attendance.
- Minimum score of 3 on New York State tests.

You’d be a good candidate for this program if…

- You are dedicated to attending the program and can show good character.
- You will be able to reliably get to their events both during the summer and after school.
How and When to Apply

Apply to HEAF as soon as you want. They generally give a first reply within five days.

More Information

Find more on their website:

http://heaf.org/
Science of Smart Cities at NYU

What it is

The Science of Smart Cities program features hands-on activities to learn about engineering, technology, sustainability, and environmental studies. There are all kinds of activities, guest lectures, field trips, and service learning opportunities. Topics covered include Energy, Urban Infrastructure, Transportation, and Wireless Communications.

Great things about this program:

- A great way to explore how science and math are used to develop cities.
- Nice topics that you won’t see anywhere else.

Downsides of this program:

- The material is not as advanced as some other programs.
- No follow-up: once you’re done, there’s no support or next steps.

To apply, you must…

- Be in grades 5, 6, or 7.
- Live in New York City. (The program is at NYU’s Brooklyn campus which makes it very convenient for most Brooklyn or lower Manhattan families.)

You’d be a good candidate for this program if…

- You’re interested in how cities work and how they can be built better.
- You’re interested in environmental issues and sustainability.

How and When to Apply

Apply to SoSC in April. If you get in, there will be a mandatory orientation before the program.
More Information

Find more on their website:

http://engineering.nyu.edu/k12stem/sosc/
City Park Foundation Green Girls

What it is

Green Girls is a free five-week summer program for girls age 10-13 to explore and do science in New York City’s parks and waterways. The program takes trips across the city “to study the dynamic urban forests of New York City.” Activities include bird-watching, canoeing, conducting experiments, or citizen science projects.

Great things about this program:

- A really cool chance to get outside and have interesting adventures during the summer.
- It's basically unlike anything else you would do with your summer, including not just science and outdoor trips but also photography and media production.
- The program continues throughout the school year with free weekly after-school sessions.

Downsides of this program:

- The learning is not as advanced as some other programs; it’s based more on exploration.
- You have to get to Long Island City (near BHSEC Queens, where we had BEAM) each day.

To apply, you must…

- Be in grades 6, 7, or 8.
- Live in New York City.

You’d be a good candidate for this program if…

- You like being outdoors and exploring what's out there.
- You're not afraid to go canoeing or other outdoor sports.
- You have lots of interests, including biology, photography, and more.
How and When to Apply

Apply to Green Girls in **February or March**.

**More Information**

Find more on their website:

Higher Achievement Program (Xavier High School)

What it is

Xavier High School, a private school near Union Square, organizes this free program for 7th grade boys which has been running for 51 years.

Great things about this program:

- Supports basic academic skills and develops a love of learning.
- Admissions is forgiving: they want students who strive for excellence and will attend regularly, but for hard workers they are not as firm about grades or test scores.
- Could provide an entry to later attending Xavier High School.

Downsides of this program:

- The academics are not as advanced as many other programs in this list.
- We don’t know anyone who’s gone, so we don’t fully know the program quality.
- Not a downside, but be aware that this is a Jesuit school (although no particular religious affiliation is required to attend).

To apply, you must…

- Be a boy in 7th grade.
- Complete an application including a report card, two letters of recommendation, and a 150-word personal statement.

You’d be a good candidate for this program if…

- You are a hard worker and have good attendance in school.
- Your grades are reasonable.
- You have adults who will speak highly of your work ethic.
- Your parents will support your work.
How and When to Apply

Apply to HAP in **February**.

Remember that one of your BEAM teachers could write a letter of recommendation!

**More Information**

Find more on their website:

[www.xavierhs.org](http://www.xavierhs.org)

HAP is a program under “Admissions”.
The Harlem Math Institute

What it is
A math summer program that provides all kinds of math instruction, test preparation, and engineering including robotics, bridges, optics, and more!

Great things about this program:
- A math program taught by a solid instructor with training from top universities.
- Options to do lots more than just math, including robotics and more.

Downsides of this program:
- We don’t know that much about it, and we haven’t had someone do it yet.
- There’s a cost of attending (but scholarships may be available if you contact them).

You’d be a good candidate for this program if…
- You want more of a challenge but you want to mostly stick to school math.

How and When to Apply
You do not need to apply; you just sign up. They don’t have information posted for 2017 yet, but signing up around April should be safe.

More Information
Find more on their website:

http://www.harlemmathinstitute.com/
The New York Math Circle

What it is

The New York Math Circle is a program for students across NYC who are interested in math. They meet on weekends during the school year, and during the summer they also have a weekend program for middle school students. There are many different levels; for BEAM 6 students, you should probably take MS-A, which is the introductory middle school program, although you can take the test to qualify for MS-B.

Great things about this program:

- A great chance to study interesting math and do challenging problems.
- Learn with some of the top math students in the city.

Downsides of this program:

- It's just math: you'll meet for two hours every Saturday or Sunday, but there won't be any social events to go along with it.
- The program meets at NYU (which is convenient for most people), or at Queens College, but you will have to travel.
- The program is not very diverse.

To apply, you must...

- Be in grades 6-12.
- Either be able to pay a fee of about $350 for the program, or submit a fee waiver request. If you demonstrate that you receive any form of government aid (for example, Medicaid or free/reduced-price lunch), then the cost is reduced to $59.

You'd be a good candidate for this program if...

- You really like math.
- You will reliably come each week for the program.
How and When to Apply

There are several times to apply. You apply in August for the fall semester, or in December for the spring semester, or in March or April for the summer. Go to their website and sign up for their e-mails to get notified when registration opens. It is very important to sign up right away if you want to do it, because they fill up very quickly!

Admission is automatic, but there are placement questions they'll ask you to do if you want to do a level higher than MS-A.

More Information

Find more on their website:

https://www.nymathcircle.org/
What it is

This is the most prestigious award you can get in 7th grade! If you win it, you will get a personal advisor who will help you with everything in high school and college. They will help you find great programs and schools. They will help you go to the best high schools, study for the SATs, and get into top colleges. They will also fund private school tuition, summer programs, study abroad programs, books and technology, and much more.

Great things about this program:

- Your personal advisor will help you find the best opportunities.
- No educational expense will cost too much, because your scholarship will help pay for it.
- You can follow the educational path you want; you don’t have to attend a specific program or school.

Downsides of this program:

- It is very hard to get in. No one is guaranteed acceptance.

To apply, you must…

- Be entering 8th grade next year.
- Since 6th grade, have earned all or mostly A’s in school, with no C’s in core academic subjects.
- Have strong test scores.
- Have family income of under $95,000 per year (although almost all award winners have family income of under $60,000 per year).

You’d be a good candidate for this program if…

- You have great grades in school.
• You have shown a commitment to learning beyond school. For example: other programs (including BEAM 6), independent projects, reading books on your own, etc.

• You have overcome meaningful challenges in getting where you are now.

• It is helpful to have involvement in your community, like volunteering.

**How and When to Apply**

Apply to the Jack Kent Cooke Foundation in **February**. You'll have to complete a pretty big application and also write some essays. When you are writing your essays, BEAM can help you to write them! Let us know.

You will need to get two teacher recommendations plus a recommendation from another adult who knows you well. BEAM can provide that recommendation, and if you did well at BEAM, you should use our recommendation. They know us really well.

**More Information**

Find more on their website:

[www.jkcf.org](http://www.jkcf.org)

Go to “Scholarship Programs” and then “Young Scholars Program”.
You Might Also Consider…

The Center for Talented Youth (CTY)

CTY is run by Johns Hopkins University and has summer programs where you can learn about all kinds of topics, from special topics in math to astronomy, biology, philosophy, history, and much more. Many BEAM 7 alumni go to CTY after 8th grade, but you can go as soon as after 7th grade. The reason we don’t recommend it now is that it’s very complicated to apply to and the cost of going is so high (CTY will give you scholarships, but you have to apply for them). To learn more, you can go to [http://cty.jhu.edu](http://cty.jhu.edu).

MathPath

MathPath is an extremely advanced middle school summer math program. We usually only recommend it after BEAM 7, but you can certainly apply on your own. It moves around to different colleges around the country; you would fly to wherever it is. (Don’t worry, lots of students your age do this!) Although it is quite expensive, they provide good scholarships for students who qualify. To apply, you must complete some extremely challenging math problems. To learn more and see the problems, you can go to [http://www.mathpath.org/](http://www.mathpath.org/).