

# More Educational Opportunities

## Helping Your Students Find Them

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November 19, 2011

## Outline

What this session is about  
General strategies for finding opportunities  
So, my kid likes...  
How to engage your child  
Thank you!

- 1 What this session is about
- 2 General strategies for finding opportunities
- 3 So, my kid likes...
- 4 How to engage your child
- 5 Thank you!

# What this session is about.

Splash is a **start**.

What next?

There's a *tremendous* amount out there.

- We'll start general and then get specific.

## The Web

- Google.
- Wikipedia.
- Online communities exist for everything. (And kids will like interacting with adults as equals.)
- E-mail.
- TED — [www.ted.com](http://www.ted.com)
- iTunes University, The Learning Company DVDs.
- Khan Academy — [www.khanacademy.org](http://www.khanacademy.org)
- NPR's Science Friday, Radio Lab; PBS' web page; BBC podcasts; Netflix PBS specials.
- Online content, from the *New York Times* to [www.seedmagazine.org](http://www.seedmagazine.org) to [www.sciencedaily.com](http://www.sciencedaily.com).
- OpenCourseWare — [ocw.mit.edu](http://ocw.mit.edu).

## Universities

This shows my personal biases, but universities are a center of human knowledge. Take advantage of them!

- Courses at colleges (including community colleges).
  - Summer courses — e.g. BU's summer term, [bu.edu/summer/high-school-programs/](http://bu.edu/summer/high-school-programs/).
- Student groups.
- Talks and seminars.
- Professors.
- When in doubt, e-mail and ask. (Especially secretaries.)

## The Community

- Community service. (In interesting places!)
- Community theater.
- Libraries.
- Museums.
- Meetups, other groups that get together.
- Cambridge Science Festival.
- The Sprouts. ([www.thesprouts.org](http://www.thesprouts.org))
- Local 4H group.

# Summers

- Good times for relevant work, labs, or volunteering.
- Summer programs, especially residential ones. (e.g. [www.explo.org](http://www.explo.org))
- More intense, interesting academic programs.
- Summer internship programs (list incl. research at [people.rit.edu/~gtfsbi/Symp/highschool.htm](http://people.rit.edu/~gtfsbi/Symp/highschool.htm)).
- <http://www.discoveryoursummer.org>
- Free time to pursue projects.

## Miscellaneous

- Magazines or other periodic interesting sources of knowledge.  
e.g. Science News, history.com.
- TimeWarner Cable's Connect a Million Minds Initiative —  
[www.connectamillionminds.com](http://www.connectamillionminds.com)



So, my kid likes...

**math!**

## So, my kid likes math!

*Real* mathematics is very different from school mathematics.

- Mathematics competitions have a strong record of getting students involved:
  - Within school, MATHCOUNTS, Continental Math League, Mathletes teams (local to national), the AMC, etc.
  - COMAP.
  - USAMTS.
- Math circles (all over the Bay Area — [mathcircles.org](http://mathcircles.org)).
- Online communities (especially [www.artofproblemsolving.com](http://www.artofproblemsolving.com)).
- PRIMES
- Most importantly, summer programs.
  - I like Mathcamp ([www.mathcamp.org](http://www.mathcamp.org)), but there are many others.
  - Investigate what people say online or ask someone, because

# So, my kid likes...

# **astronomy!**

## So, my kid likes astronomy!

- Observatories have public observing times and programs. You can also volunteer!
- Universities: work with a professor or take a class.
- Build a telescope (or buy one) and go out with a star map.
- Subscribe to *Sky & Telescope* or *Astronomy* and let your child read and decide to go out.
- NASA, the Sloan Digital Sky Survey — [www.sdss.org](http://www.sdss.org) — and their education links like SkyServer.
- [heavens-above.com](http://heavens-above.com)
- iPhone Apps — Go Skywatch (see the sky as you point it), NightSky (live views of the Earth, Sun, etc.)
- Summer programs will often take kids on amazing trips to observatories for several weeks. (Investigate them online.)

So, my kid likes...

**writing!**

## So, my kid likes writing!

- Find a community writing circle or group; they will be very inviting.
- Create your own writing circle.
- Join the school newspaper or literary magazine.
- Submit work to competitions, online magazines, or others.
- Join an online community and share writing, publish on a blog.
- Summer programs.
- NaNoWriMo — November, <http://www.nanowrimo.org/>.
- Subscribe to a writers' magazine or buy a guide for where to submit your work.

So, my kid likes...

**building things!**

## So, my kid likes building things!

- Let them play!
- Tech Challenge, from The Tech Museum — [techchallenge.thetech.org](http://techchallenge.thetech.org)
- Hackerspaces — [www.hackerspaces.org](http://www.hackerspaces.org)
- Maker Faire, "the world's largest DIY festival" — [www.makerfaire.org](http://www.makerfaire.org) (Bay Area, Detroit, New York)
- FIRST Robotics — [www.usfirst.org](http://www.usfirst.org)
- Science Olympiad — [www.soinc.org](http://www.soinc.org)
- NerdKits ([www.nerdkits.com](http://www.nerdkits.com)) and kits from science museums.
- Rubik's cubes.
- Howtoons — [www.howtoons.com](http://www.howtoons.com).
- MAKE Magazine ([www.makezine.com](http://www.makezine.com)), Instructables ([www.instructables.com](http://www.instructables.com)), Adafruit ([www.adafruit.com](http://www.adafruit.com) — electronics).



# So, my kid likes...

# **computer games!**

## So, my kid likes computer games!

This seems like the least productive interest. So let's see how to turn it around to something productive.

- Create your own computer games (through lots of online software).
- Study interactive storytelling.
- Computer programming, through camps or other programs.
- Learn to program with the Game Maker website, Scratch, Alice.
- Follow blogs of game designers.

# So, my kid likes...

## **everything**

# So, my kid likes everything!

- Help them explore many interests.
- Let them explore a few things in-depth as they're interested.
- Find online communities.
- Find summer programs with a variety of courses.
- Look into programs like Academic Decathlon.

# So, my kid...

## doesn't like anything!

## So, my kid doesn't like anything!

- Let them explore: Splash!
- Build on their Splash experience: expose them to stimulating ideas that further the classes they liked.
- Encourage them to stay in contact with Splash teachers; e-mails are available.
- Try out lots of things, from sports to after-school. Don't force it; they'll find what they like.

# How to engage your child

- You want to build genuine interest in your child.
  - Genuine interest comes from a feeling of ownership; “doing what your parents want” doesn’t help.
  - Build their own initiative and interest, not outcomes.
- Judge your own relationship. If pushing your child to do something will push them away, then back off.
- *Provide* opportunities.
  - Provide exciting books or trips without forcing them.
  - Share what *you* love.

## How to engage your child (cont'd)

- Be genuinely curious, and share your curiosity.
  - Explore a Wikipedia article and pass it on.
  - See a webcomic that is interesting and pictures a scientist or an artist or a writer? Pass it on. ([www.xkcd.com](http://www.xkcd.com) is a good example).
- Seek out talks at universities.
- Lastly, don't violate your child's independence. That just invites rejection.



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