TYPES OF SUPPORT

- Monetary
- Equipment
- Expertise
- Staff Projects
- Facilities
BUILDING RELATIONSHIPS

• Within your class
• Within your school
• Within your district schools
• Within your community
  • Government agencies
  • Extension service
  • Educational institutions
  • Business and industry
Outdoor Trail and Classroom

- First step, Parks and Rec contacted school system and extension service for input on educational value

- progressed to Education Stations → Self-Guided Learning Experience → Annual Watershed Field Day → PLUS STEM program for local elementary school
STUDYING MACROINVERTEBRATES FROM STREAM

THE TRAIL - 4TH FOOD CHAINS & WEBS
EXAMPLES - CONNECTIONS

- City of Griffin applied and received a 319 grant through EPD
- Hired a water education specialist (Alexa)
- Successful programming initiated through 4-H, incorporating watershed education
- Developed relationships with schools/teachers leading to successful programs such as Watershed Field Day and STEM (Adopt-A-Stream)

You never know where a connection may lead.
Making connections is the first step!
CITY ART CONTEST FOR STREAM CLEAN-UP – EFFECTS OF CHANGE IN AN ENVIRONMENT
EXAMPLES – PARENT/BUSINESS

• A parent working for a business provided a connection to tour facilities being renovated.

• Led to tour of the local Water Works and expanded to touring the journey water takes from intake to outtake release point.

• Leading to strengthening relationships with the water department.

• It is self-sustaining and can be replicated even when the initial contact is no longer in the picture.
VISITING WATER WORKS

STUDENTS LEARN HOW WATER IS CLEANED – EFFECTS OF CHANGES IN AN ENVIRONMENT
MODEL WATER TOWER
CHALLENGE
EXAMPLES – HIGHER EDUCATION

• Project-Based Unit on ecology.
  • UGA-Griffin Campus researchers provided information and activities about the problems in which they have active programs. We extended this study by visiting UNG in Dahlonega.

• Video interviews of researchers and projects
  • High school video students complete interview projects for the university and the school system to use to promote scientific research.
REAL-WORLD PROBLEMS

• Investigating real-world problems in Georgia with researchers at UGA:
  • Honeybee – Colony Collapse Disorder (Jim Quick)
  • Hemlock Woolly Adelgid – Killing Eastern Hemlocks (Kris Braman)
  • Kudzu Bug – Crop destruction (Wayne Gardner)
UGA RESEARCHERS SHARED WITH STUDENTS

DR. GARDNER, DR. BRAMAN, AND JIM QUICK
EXTENDING OUR STUDY OF HEMLOCK WOOLLY ADELGIDS
DR. KRIS BRAMAN SHARING RESEARCH

STUDENTS LEARN ABOUT CONSERVATION GARDENS
JIM QUICK SHOWS PART OF RESEARCH ON POLLINATORS

FILMING BY HIGH SCHOOL STUDENTS TO SHARE
Dr. Habtelsellassie and doctoral student share their passion for research on video.
GEORGIA TECH GRANT

• $7.3 million 5 year grant to promote STEM
• Middle School focus with transition to high school. Modules in CTAE classes and in Science and Math classes.
GEORGIA TECH & AMP-IT-UP GRANT

Modules for Connections + Science & Math

FLL

Trash Trek

MakerBot Industries
The AMP-IT-UP project researches how integrating science, math, and engineering can improve STEM performance for middle school students.

- Partnership with Griffin Spalding County School System
- $7.3 million award from the National Science Foundation
GEORGIA TECH GRANT

- 4 middle schools
  CTAE engineering connections class with modules to build projects
  Science/Math modules
  First LEGO League support

- 2 high schools
  Engineering class support

- 11 elementary
  Sponsors any FLL interest and funds to purchase supplies
GEORGIA TECH AMP-IT-UP

**Program Components**

- Middle school STEM Innovation and Design (STEM ID) exploratory courses that enable students to explore their creativity using robotics and rapid prototyping
- Middle school math and science modules that promote inquiry and connect with manufacturing themes
- High school engineering courses that focus on design-build challenges
- Extracurricular enrichment (Junior Makers Clubs, robotics competitions, summer research internships, etc.) for GSCS students, with mentoring by Georgia Tech faculty and students
- Research on how AMP-IT-UP affects academic engagement, content understanding, knowledge transfer, and student persistence in STEM
CONSIDERATIONS

• Why do we want to involve the community?

• Of what value is a project-based learning approach?

• Why is it important for students to make connections to the real-world?
CONSIDERATIONS

• Brainstorm
  • Who/What is in your area?
    • Government, higher ed., civic org.
  • Who is someone you or another person knows there?
  • Parent connections?
    • PTO/PTA/PTSO
CONSIDERATIONS

• How will this connect with your standards?
• How will you approach the entities? What have you or can you do for them?
• Are you a member of any of the organizations that may support your ideas? Can you join?
CONSIDERATIONS

• Is your administration aware? On board?
• Have you included others at your school?
  • Colleagues, other staff
• What type of interest do you have in your school building?
CONSIDERATIONS

• Now that you have some ideas, how will you follow-through to make your plans come alive?
• Don’t give up if the first plan does not succeed.
• There are people in your community that want to support you!
RESOURCES

• Model Water Tower Competition
  http://www.gawp.org/?page=MWTC

• Project-Based Learning
  http://bie.org/about/what_pbl
  http://www.edutopia.org/project-based-learning
RESOURCES

• Georgia Adopt-A-Stream
  http://www.georgiaadoptastream.com/db/index.html

• UGA Extension Service
  http://www.caes.uga.edu/