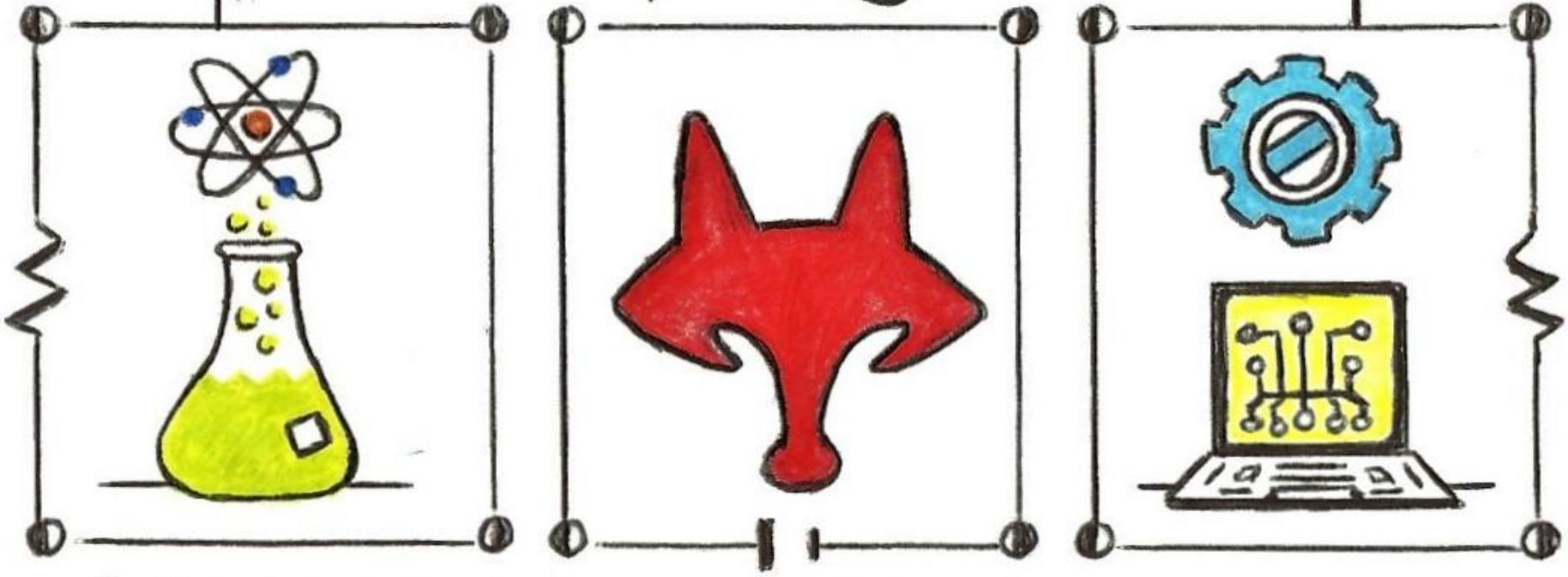
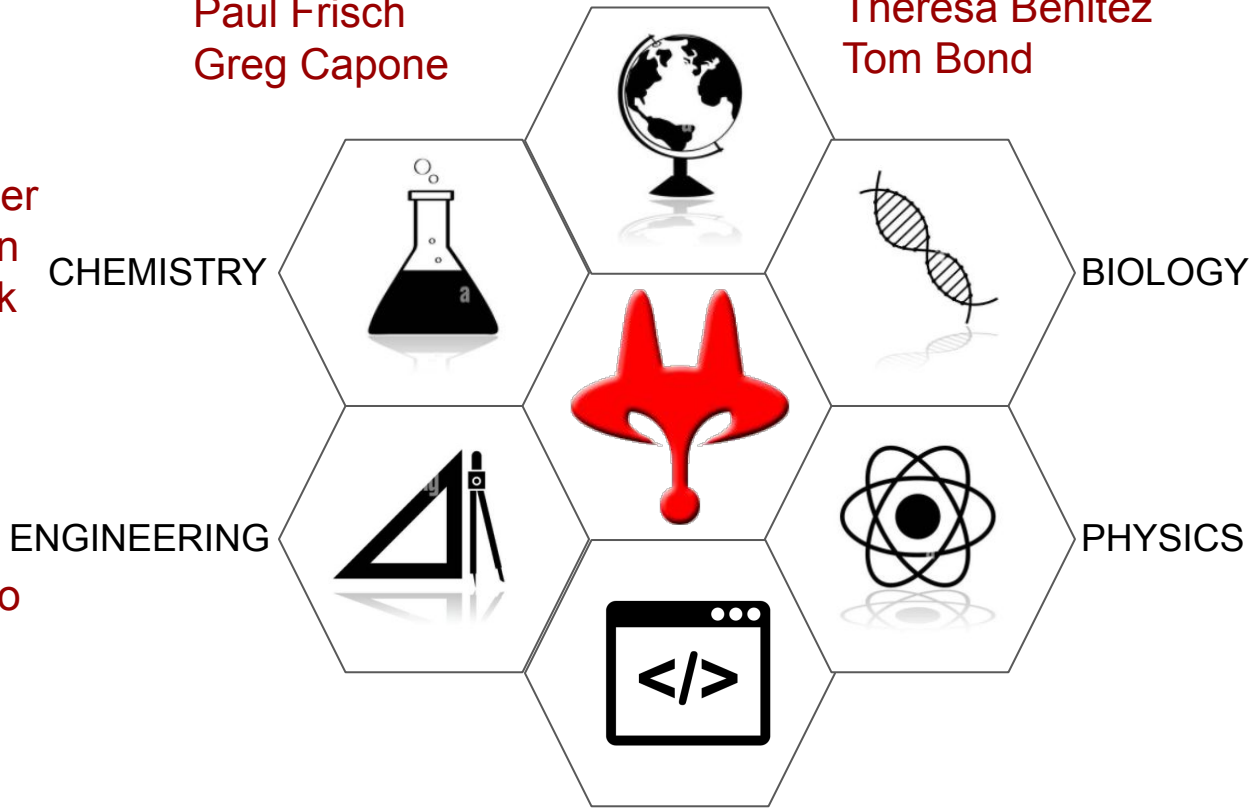
Fox Lane



SCIENCE AND TECHNOLOGY

Who we are:



Kristin Woodell
Jelena Dossena
Paul Frisch
Greg Capone

Michele Curran
Kristen Auerbach
Theresa Benitez
Tom Bond

Hillary Dowling
Dan Mulvey
Amy Pirro
Chris Dossena
Karyn Langke
Chris O'Gorman
Lynn Lynch
Matt Hillis
Christine Ledrich
Jeanine Manka
Amanda DeSerio

Debi Schmutzer
Fred Neumann
Sherry Dudeck
Dana Luna
Chris Grove

Sean Pope
Inga Garbarino
Carl Koehler
Tim Pribanich

Jerry Ludwig
Sal Tatto
Jim Doller

Mike Cannone
Jon Swart

What we teach : Fox Lane MS

Earth and Space Science (6th Grade)

Life Science (7th Grade)

Physical Science (8th Grade)

Design and Modeling

Automation and Robotics

Engineering Project

What we teach : Fox Lane HS

Regents Earth Science
Regents Living Environment
Regents Chemistry
Honors Chemistry
Applied Chemistry
Regents Physics
Accelerated Physics
Applied Physics
Applied Geosciences
Introduction to Science Research
Intermediate Science Research
Advanced Science Research
Introduction to Engineering Design
Principles of Engineering
Computer Integrated Manufacturing
Engineering Design and Development
Intro to Computer Science ($\frac{1}{2}$ year)
Computer Science
Forensic Science
Advanced Geology
AP Biology
AP Chemistry
AP Physics
AP Environmental Science
AP Computer Science A
AP Computer Science Principles
Animal Behavior ($\frac{1}{2}$ year)
Anatomy and Physiology ($\frac{1}{2}$ year)
Bioethics ($\frac{1}{2}$ year)
Astronomy ($\frac{1}{2}$ year)
Meteorology and Climate ($\frac{1}{2}$ year)

Where we are :

BCSD Curriculum Review Cycle 2021-2026

	Phase 1 Study & Plan	Phase 2 Develop	Phase 3 Implement			Phase 4 Evaluate
Description	Review achievement data, current curriculum materials, and appropriate standards. Research best practices. Study available curriculum materials. Select new materials, if appropriate. Plan pilot and implementation.	Provide training and PD as needed. Begin implementation process of any new instructional materials. Collect evidence of student learning and impact of [illegible]culum. Revise and refine in "real time."	Provide ongoing support for implementation. Collect evidence of student learning. Revise scope & sequence. Assist with ongoing PD.	Provide ongoing support for implementation. Collect evidence of student learning. Revise scope & sequence. Assist with ongoing PD.	Provide ongoing support for implementation. Collect evidence of student learning. Revise scope & sequence. Assist with ongoing PD.	Monitor overall implementation. Evaluate and reflect upon success of student learning. Continue revisions to curriculum scope & sequence. Prepare for Phase 1.
2021-2022 Tri-States: Leadership Structures (NEW Consultancy) Student Membership & Voice (Follow-up)	K-12 Mathematics K-5 Enrichment K-12 Info. Literacy & Digital Fluency	K-12 SEL K-12 Science	K-12 VPA [illegible]12 PE/Health	K-12 ELA/Reading K-12 SS/Business	K-12 ESOL World Languages	K-12 ELA/Writing K-12 STEAM
2022-2023 3-8 ELA/Math Next Gen Standards Assessed	K-12 ELA/Writing K-12 STEAM	[illegible]12 Mathematics K-5 Enrichment K-12 Info. Literacy & Digital Fluency	K-12 SEL K-12 Science	K-12 VPA K-12 PE/Health	K-12 ELA/Reading K-12 SS/Business	K-12 ESOL World Languages
2023-2024 Grade 5 & 8 Next Gen Science Assessed	K-12 ESOL World Languages	K-12 ELA/Writing K-12 STEAM	K-12 Mathematics K-5 Enrichment K-12 Info. Literacy & Digital Fluency	K-12 SEL K-12 Science	K-12 VPA K-12 PE/Health	K-12 ELA/Reading K-12 SS/Business
2024-2025 Next Gen Geometry, Biology, Earth & Space Regents	K-12 ELA/Reading K-12 SS/Business	K-12 ESOL World Languages	K-12 ELA/Writing K-12 STEAM	K-12 Mathematics K-5 Enrichment K-12 Info. Literacy & Digital Fluency	K-12 SEL K-12 Science	K-12 VPA K-12 PE/Health
2025-2026 Next Gen Chemistry & Physics Regents	K-12 VPA K-12 PE/Health	K-12 ELA/Reading K-12 SS/Business	K-12 ESOL World Languages	K-12 ELA/Writing K-12 STEAM	K-12 Mathematics K-5 Enrichment K-12 Info. Literacy & Digital Fluency	K-12 SEL K-12 Science

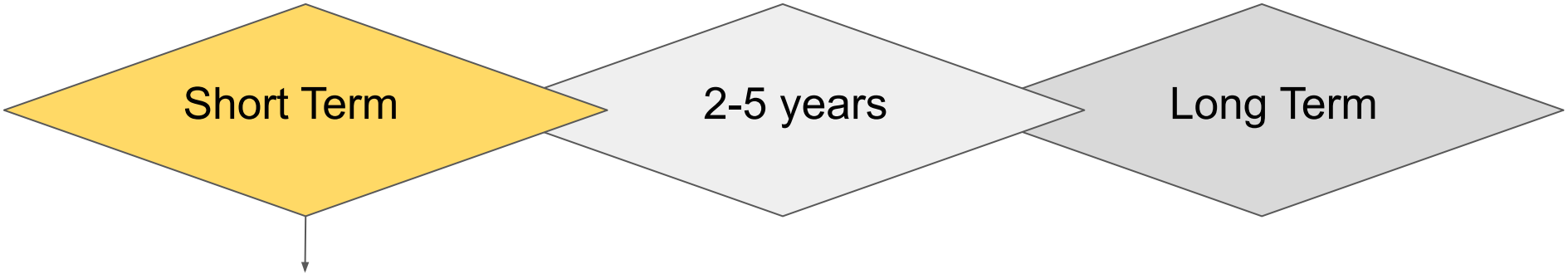
What we believe :

Mission Statement: The Science and Technology department at BCSD shall provide students with STEM experiences that leverage their innate curiosity and fascination with the world while building deep content knowledge and 21st century skills.

Science, Engineering, and Computer Science Courses at Fox Lane should:

- Prepare students to think critically and make informed decisions.
- Be fun, engaging, relevant, interactive, and infused with skills that will translate into future success and career readiness.
- Integrate current technology to retrieve, process, and communicate information and as a tool to enhance learning.
- Provide current, inclusive and aligned STEM curriculum.

Where we are going : Priorities and Planning



- Introduce new Regents Earth Science course to 8th grade
- Propose new/modified courses offerings to increase student access to advanced coursework
- Support STEM clubs and competition teams with faculty and department resources
  Science Research, Science Olympiad, Envirothon, Robotics, Girls Who Code, Computer Science Club, Animal Activists Club, Physics Club, Girls STEM Club, Makers/Tech Club
- Complete science hallway redesign project
- Improve college and career readiness by offering relevant exposure and student internships
  FOX Talks, Northwell Health, MSKCC summer internship, UNIS conference

2019 Envirothon State Team

Cerina Karr – Diane Zhang
Maggie Dunne – John Gregory
Andrew Miller

Westchester County: 1st Place
New York State: 5th Place

2021 Science Olympiad State Team

1st Row: Ally Burg, Jen Lee, Brett Waldman, Will Krasnow, Alexandra Griffin
2nd Row: Emma Greene, Kaitlyn Park, Maddy Allison, Stephanie Long[7], Jake Tetenman, Jacob Feldman[10], Joe Bloom, Matt Krasnow[7,10], Harry Griff
Missing from picture: Quinn Alami
Medals Won: [7]Geologic Mapping [10]Water Quality

You're invited to a...

FOX Talk

hosted by

Fox Lane

SCIENCE AND TECHNOLOGY

FOX Talks are a series of lectures designed to provide students and families of the BCSD community an intimate look into exciting and evolving careers in science, computer science, and engineering. Each FOX Talk will feature an hour-long presentation and Q&A with an acclaimed professional in a STEM field followed by a showcase of related student work, experiences, and opportunities available at Fox Lane.

The theme of this FOX Talk is: *Engineering in Healthcare*

Please join us on **Thursday, December 6th from 7-9 pm**
as we welcome to the **Mary Lou Meese Theater at Fox Lane High School**

Paul Frisch, PhD

Attending Department of Medical Physics

Chief of Biomedical Physics and Engineering

Memorial Sloan Kettering Cancer Center

Paul Booth, MS

Manager of Biomedical Systems

Memorial Sloan Kettering Cancer Center

Ashley Jackson, MS

Manager of Clinical Engineering

Memorial Sloan Kettering Cancer Center

Presentation Topics Include:

- Breakthrough applications of 3D printing in healthcare
- Medical device development and prosthetics
- Surgical robotics
- Essential skills for a career in STEM

Memorial Sloan Kettering Cancer Center

Kindly **RSVP** to this event here: http://bit.ly/FOXTalksRSVP or here:

There is no charge for BCSD students and families

Proudly brought to you by the Fox Lane Science and Technology Department.

Providing students with science and engineering experiences that leverage their innate fascination with the world while building deep content knowledge and 21st Century Skills.

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2019 Theme:

Realizing Your Dreams Through STEM

Please join us on **Thursday, December 5th from 7-9 pm**
as we welcome to the **Mary Lou Meese Theater at Fox Lane High School**

Brian Lima, MD, FACS

Cardiothoracic Surgeon

Surgical Director of Heart Transplantation

North Shore University Hospital, Northwell Health

Associate Professor of Surgery

Zucker School of Medicine, Hofstra/Northwell

Author

Keynote Speaker

Presentation Topics Include:

- Clinical innovation in heart failure and heart transplants
- How modern technology has changed the way we treat disease
- The keys to advancing well beyond your comfort zone and perceived limitations
- Essential skills for a career in STEM
- Chasing the American Dream

Kindly **RSVP** by clicking here: https://forms.gle/6XEUa9Qf8bGxhZPz8

You may also **RSVP** using your phone and this QR Code:

There is no charge for BCSD students and families.

Proudly brought to you by the Fox Lane Science and Technology Department.

Providing students with science and engineering experiences that leverage their innate fascination with the world while building deep content knowledge and 21st Century Skills.

A : Test - Mechanical [ANSYS Multiphysics]

File Edit View Units Tools Help | Solve | ?/ Show Errors | Worksheet

Show Vertices | Wireframe | Show Mesh | Random Colors | Annotation Preferences | Edge Coloring | Thicken Annotations

Result 34154.108275754494 | Probe | Display All Bodies

Joint Configure | Configure | Assemble | Set | Revert

Outline

Filter: Name

- Model (A4)
  - Geometry
    - Solid
  - Coordinate Systems
  - Mesh
    - Body Sizing
  - Static Structural (A5)
    - Analysis Settings
    - Fixed Support
    - Force
  - Solution (A6)
    - Solution Information
    - Equivalent Stress
    - Total Deformation

Details of "Equivalent Stress"

Scope	
Scoping Method	Geometry Selection
Geometry	All Bodies
Definition	
Type	Equivalent (von-Mises) Stress
By	Time
Display Time	Last
Calculate Time History	Yes
Identifier	
Suppressed	No
Integration Point Results	
Display Option	Averaged
Average Across Bodies	No
Results	
Minimum	1.6707e-002 MPa
Maximum	0.92593 MPa

Section Planes

Section Plane 1

A: Test
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 0.88889
2/14/2015 3:38 PM

0.92593 Max
0.82491
0.72388
0.62286
0.52183
0.42081
0.31978
0.21876
0.11773
0.016707 Min

ANSY
R15

Geometry | Print Preview | Report Preview

Graph

Animation | 10 Frames | 2 Sec (Auto) | 3 Cycl

0.88889

0. 1.

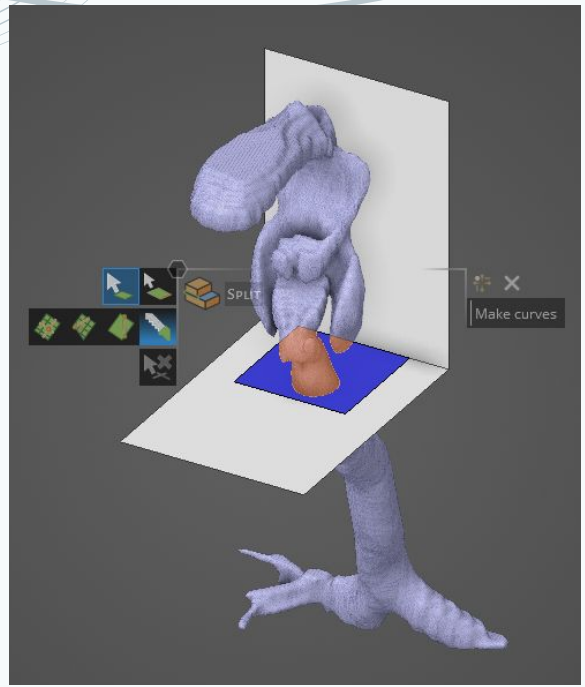
Messages | Graph

Tabular Data

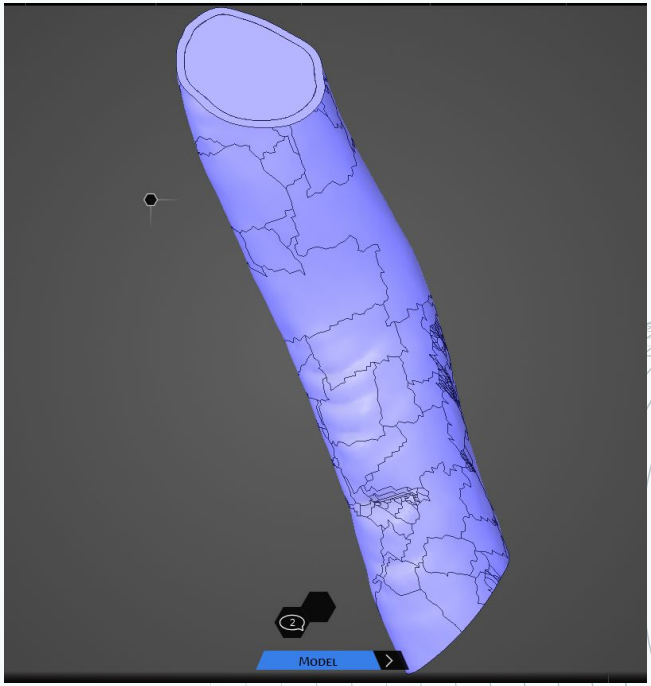
00:10:28 Stop recording

No Messages | No Selection | Metric (mm, kg, N, s, mV, mA) | Degrees | rad/s | Celsius

Trachea

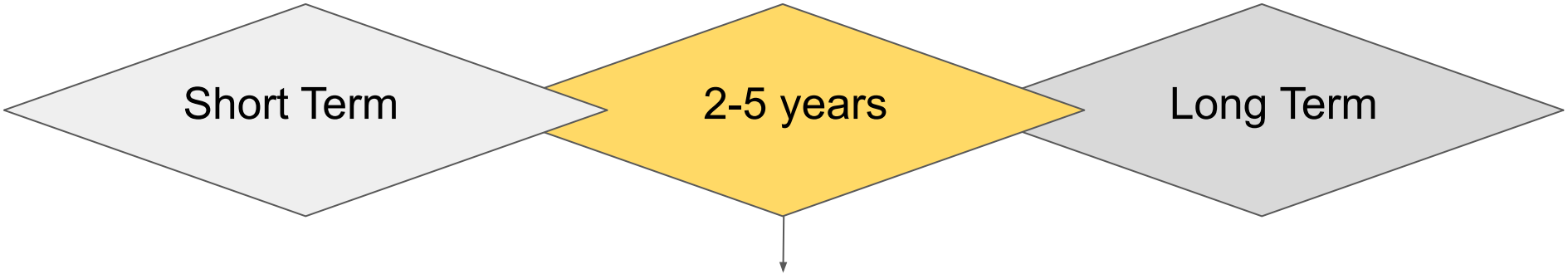


Trachea with larynx



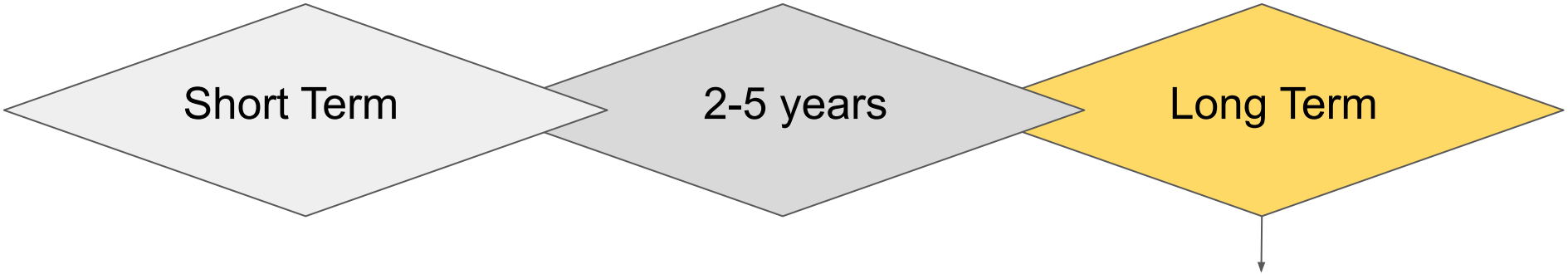
Trachea without larynx

Where we are going : Priorities and Planning



- Engage department in productive and focussed professional development opportunities
- Continue to refine course offerings to reflect the most relevant and inclusive course content
- Expand Science Research program to STEM Research (engineering and computer science)
- Increase opportunities for computer science instruction grades K-8
- Establish a local branch of the Science National Honor Society
- Redesign modern Engineering/STEM lab and makerspace
- Establish a STEM week district celebration
- Partner with elementary colleagues to provide STEM enrichment opportunities (grades K-5)

Where we are going : Priorities and Planning



- Develop Junior Foxes STEM programming (grades K-5) aligned to secondary STEM curriculum
- Build an outdoor education center on FL campus with related coursework and programming
- Establish relationships with international schools using videoconferencing and remote learning
- Recruit and retain exceptional STEM teachers