

**Pathways Academy of  
Technology and Design  
Magnet School**



**Annual Report**

**2013-2014**

Pathways Academy of Technology and Design

Name of School

2 Pent Road, East Hartford, CT 06118

Address

860-695-9450

Phone

[david.goldblum@hartfordschools.org](mailto:david.goldblum@hartfordschools.org)

E-Mail

David Goldblum

Director or Principal

### **Participating School Districts**

Berlin, Bloomfield, Bristol, Broadbrook, Chester, Columbia, East Granby, East Hampton, East Hartford, Enfield, Farmington, Glastonbury, Granby, Hartford, Higganum, Lebanon, Manchester, Middletown, Meriden, New Britain, Newington, Plainville, Rocky Hill, South Windsor, Stafford Springs, Tolland, Vernon, West Hartford, Windham, Windsor, Windsor Locks

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# Mission Statement

## Vision

Pathways Academy of Technology and Design will empower its diverse community of students to become fully active participants in our global, technology- driven society. Through Project-Based Learning, students will acquire technological and critical thinking skills, and will develop a sense of personal and social responsibility that will enable them to successfully compete in the growing, fast-paced, and rapidly changing world economy.

## Mission

Pathways Academy of Technology and Design will accomplish its vision through:

- Empowering innovative and collaborative learning through the use of cutting-edge technology
- Providing rigorous academic curricula focusing on high achievement
- Fostering a belief that all students can achieve
- Establishing a team of dedicated and knowledgeable professionals willing to grow with the changing technological world
- Developing partnerships with the business community that allows students to explore work-based experiences such as mentoring, internships, and career exploration.
- Reducing racial, ethnic, and economic isolation of students in urban, suburban, and rural schools.
- Encouraging parents, students, and teachers to work together to create a positive and safe learning environment.



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aged technology immersion summer camp, welcomed 50 campers to programs ranging from 3D Avatars, LEGO Robotics, and CSI: Camp Technovate.

- 2) Describe your school's professional development priorities for 2014-15. Be specific as to activities that support your special magnet theme.

To support our magnet theme of technology integration we are dedicated to having teachers participate in professional development that introduces them to the most advanced technology and the best practices for applying it in the classroom. For example, last year, three of our teachers and our principal participated in the Nellie Mae Education's Blended Learning grant initiative. Each of them attended a variety of national technology oriented conferences and made site visits to schools renowned for their application of technology. Each teacher then engaged in action-oriented research tracking the implementation of these practices in their own classrooms.

To support our magnet theme of project-based learning, this year we will continue last year's practice of bi-weekly collaboration on developing interdisciplinary projects. A system has been put into place where every other week's staff meeting, coordinated by the Magnet Resource Teacher (MRT), will have staff working in collaborative partnerships to develop technology-rich curriculum that will be implemented in the classroom this year. Example: one of our Physical Education teachers had the idea of creating a health-monitoring app with his students, while one of our technology teachers recently completed a training program to teach app development. The two teachers will work together during scheduled collaborative time to plan this PBL. To support the collaboration process, the MRT has developed a whole-school curriculum map outlining teachers units of studies and projects. Teachers are using this map to identify collaboration partners. Accordingly, work partnerships will be put together according to teachers' needs and interests: one teacher may share his knowledge of technology with others who are looking to integrate a specific skill into their classrooms; experienced teachers may work with new teachers on how to structure a PBL; and two teachers may plan a cross-disciplinary project involving the students that they share. Additionally, the school's Industry Advisory Board will use the curriculum to ascertain where they can be involved more in curriculum development and execution.

In addition to this after-school collaboration time, a key component of our professional development strategy this year will consist of the MRT spending at least 10 hours per week working one on one with teachers in the classroom to facilitate technology integration and project based learning. Research shows that one-on-one coaching is the most effective form of training and the teachers are requesting professional development in this form, so we intend to invest heavily in it this year.

To support our effort to make all students college and career ready we are allocating time and providing PD to make our teaching more student-centered. Using NWEA data last year, teachers had professional development training that took them through the steps of accessing, reading and interpreting data for students in their upcoming classes. This year we are initiating Collaborative Academic Teams that will meet weekly to review student performance data and plan interventions. In addition, each quarter our Early Intervention Team and SPED department will share information on students and provide resources for staff to meet the needs of all learners.

- 3) What does your school do uniquely well (related to your magnet theme) that you think other regular public schools may replicate on the local level or in other public schools.

Other schools could benefit from replicating Pathways to Technology approach to developing Project-Based Courses and lessons that engage students in authentic problem solving situations. By doing so those students could learn to:

- a) solve complex and authentic problems developed by students with input from business and industry partners;
- b) develop an understanding of the global influences on business, industry, and technology;
- c) learn and apply the skills necessary to develop and run a small business and engage in entrepreneurial pursuits;
- d) create original content digitally, with an understanding of the characteristics of good design principles;
- e) engage in Biotech research and Bioinformatics reporting;
- f) work with industry standard equipment in Robotics, Advanced Manufacturing, and Rapid-Prototyping;
- g) create software, computer applications, virtual reality environments, and video games;
- h) demonstrate use of technology for effective productivity and communications
  - a. Demonstrate strong verbal and written communication skills
  - b. Evaluate constructively the presentations and productions of self and others
  - c. Use various electronic and traditional sources to present an effective, unified message to more productively communicate with one's audience
- i) Use information problem solving and critical thinking skills to:
- j) Enhance traditional inquiry/research methods through the use of technology;
- k) Set short and long term goals and successfully reach them;
- l) Select and use a variety of information technology resources to create new meaning and knowledge by combining and synthesizing different types of information technologies

m) Judge the validity of information obtained through the use of technology

- 4) Describe the manner in which you promote replication of your school's best practices with regular public schools.

Pathways takes very seriously its obligation to share best practices with regular public schools. The primary vehicle for this is our participation in Hartford's team of National Academy Foundation schools. These are a group of five schools – three regular public schools, one regular school that just became a magnet and Pathways – that meets monthly to share best practices and challenges. We all integrate the NAF curriculum to some extent so we have many concrete academic matters to collaborate upon. In addition to the curricula, we collaborate extensively with this group. For example, we share a robotics team with one school and we are engaging on international trips and Model UN with another.

As described above, Pathways teachers and the principal this year are participating in a Professional Learning Community through the Nellie Mae Education Foundation. In this endeavor we are collaborating closely with teachers and administrators from Bulkeley High School with whom we will we share the experiences and expertise in technology that we have developed through the magnet school program.

Additionally, through our partnerships, Pathways is able to work with professionals throughout the region. Through these contacts our teachers are able to share best practices with professionals in regular public schools and higher education. Our partners include:

- Goodwin College – Pathways is on the Goodwin College campus. Students at Pathways have opportunities to earn college credits and participate in activities with the College. Pathways and Goodwin will develop opportunities for students to continue programs from the high school to the post-secondary level.
- Connecticut Center for Advanced Technology, CCAT - CCAT offers a wide range of services to educators and educational institutions, particularly throughout the state of Connecticut. These efforts span two main areas: Improving the quality of math and science education in grades K-12, and boosting the skills sets of the current workforce particularly in the areas of advanced manufacturing and other technology-related disciplines. CCAT also provides STEM workshops to students to introduce them to careers and higher-education opportunities.
- Connecticut River Academy – since this school is co-located on the Goodwin College campus, the two schools will develop a relationship where students have an opportunity to interact with each other on projects, in classes and in extra-curricular activities.
- Urban League of Hartford – through various grants and after school programs, the Urban League offers job training workshops, internship preparation and career competency training to the students of Pathways. Students from other schools are able to utilize the Pathways facilities for these programs.
- During the Buck Institute trainings that have been offered for the Pathways teachers, there are seats that are made available to schools such as the Engineering and Green Technology Academy, High School Inc., Culinary Academy, Connecticut River Academy, and the Nursing Academy at Hartford Public High. These seats are made available free of charge to increase the capacity of the staff at these schools to implement the best practices of Project-Based Learning in their own schools and classrooms.

- 5) Describe your school's two greatest challenges/obstacles to meeting or exceeding the annual report's school goals section in 2014-15. Please include ways in which the CSDE may support our school in meeting these challenges through enhanced professional development opportunities or specific technical assistance on matters needing close attention.

In March of 2104, Pathways to Technology moved into a newly constructed, state-of-the-art, school building on the Goodwin College campus. This facility houses laboratory and workspaces that are designed for 21<sup>st</sup> Century learning. Approximately 50% of the space in the building will be dedicated to non-traditional classroom spaces such as:

- Biotechnology Lab
- Optics and Photonics Lab
- Advanced Energy and Nanotechnology Lab
- Robotics Lab
- Art and Graphic Design Studio
- Advanced Design Lab
- Virtual Reality Studio
- Video Production Studio
- Digital Video Editing Suites
- Recording Studio
- Digital Music Lab
- Media and Research Center
- Presentation Rooms
- Black Box Theater/Studio

These non-traditional spaces call for non-traditional teaching methods. Pathways is developing a course of study that emphasizes Project-Based Learning and technology integration. The previous curriculum at Pathways to Technology was designed to teach students how to use technology. Pathways must make the change from this curriculum to a curriculum that teaches students how to solve problems. It is our goal to teach students how to solve problems that don't yet exist. By making the change from a strictly technology focus to a project/problem base approach, Pathways will be following the recommendation of the National Educational Technology plan:

A core set of standards-based concepts and competencies should form the basis of what all students should learn, but beyond that students and educators should have options for engaging in learning; large groups, small groups, and work tailored to individual goals, needs, interests, and prior experience of each learner.

The core of our strategy this year is to train teachers through one on one coaching led by our MRT and other teacher leaders. The CSDE can support us by funding these positions.

A second area for improvement that we have been working on is SRBI. This year our focus is to become more data driven and we are forming data teams and introducing focused skills assessments to aid us in this effort, in addition to our Early Intervention Team which was trained and improved last year. The CSDE's support of our teacher leaders will be critical in our success in this area.

6) Provide the number of applications received by grade and town of residence; as of date of lottery.

| <b>2012-2013 Applications for the SY 2013-2014</b> |                 |                |                 |                 |                 |              |
|--|-----------------|----------------|-----------------|-----------------|-----------------|--------------|
| <b>School_name</b>                                 | <b>District</b> | <b>Grade 9</b> | <b>Grade 10</b> | <b>Grade 11</b> | <b>Grade 12</b> | <b>Total</b> |
| Pathways Academy of Technology and Design          | ANDOVER         | 1              | 0               | 0               | 0               | 1            |
|  | AVON            | 1              | 0               | 0               | 0               | 1            |
|  | BERLIN          | 0              | 0               | 1               | 0               | 1            |
|  | BLOOMFIELD      | 5              | 1               | 2               | 0               | 8            |
|  | BRISTOL         | 1              | 0               | 0               | 0               | 1            |
|  | COLUMBIA        | 1              | 0               | 0               | 0               | 1            |
|  | EAST HAMPTON    | 1              | 0               | 0               | 0               | 1            |
|  | EAST HARTFORD   | 14             | 4               | 4               | 1               | 23           |
|  | EAST WINDSOR    | 1              | 0               | 0               | 1               | 2            |
|  | ENFIELD         | 2              | 1               | 1               | 0               | 4            |
|  | GLASTONBURY     | 1              | 0               | 0               | 0               | 1            |
|  | HARTFORD        | 63             | 22              | 14              | 1               | 100          |
|  | MANCHESTER      | 7              | 5               | 0               | 0               | 12           |
|  | MIDDLETOWN      | 1              | 0               | 0               | 0               | 1            |
|  | NEW BRITAIN     | 6              | 1               | 1               | 1               | 9            |
|  | NEWINGTON       | 1              | 2               | 1               | 0               | 4            |
|  | PLAINVILLE      | 1              | 1               | 0               | 0               | 2            |
|  | ROCKY HILL      | 1              | 0               | 0               | 0               | 1            |
|  | SOUTH WINDSOR   | 1              | 0               | 0               | 0               | 1            |
|  | SOUTHINGTON     | 1              | 0               | 0               | 0               | 1            |
|  | STAFFORD        | 2              | 0               | 0               | 0               | 2            |
|  | SUFFIELD        | 0              | 1               | 0               | 1               | 2            |
|  | TOLLAND         | 1              | 0               | 0               | 0               | 1            |
| VERNON   | 6               | 1              | 0               | 0               | 7               |              |
| WEST HARTFORD                                      | 1               | 1              | 0               | 0               | 2               |              |
| WETHERSFIELD                                       | 1               | 0              | 0               | 0               | 1               |              |
| WINDSOR  | 4               | 0              | 1               | 0               | 5               |              |
| WINDSOR LOCKS                                      | 2               | 0              | 0               | 0               | 2               |              |
| <b>Total</b>                                       |                 | <b>127</b>     | <b>40</b>       | <b>25</b>       | <b>5</b>        | <b>197</b>   |

7) Provide the number of students on wait list/pool by grade, race and residence; as of October 1, 2013, (see note)

| Student Information                      |              |               |          |                                |          |                        |   |          |           |
|--|--------------|---------------|----------|--------------------------------|----------|------------------------|---|----------|-----------|
| 2012-2013 Wait List for the SY 2013-2014 |              |               |          |                                |          |                        |   |          |           |
| Pool_name                                | Grade_Name   | District      | Hispanic | American Indian/Alaskan Native | Asian    | Black/African American | Native Hawaiian or Other Pacific Islander | White    | Total     |
| Always Academy of Technology Design      | Grade 9      | HARTFORD      | 5        | 0                              | 0        | 3                      | 1   | 2        |           |
|  | Grade 10     | BLOOMFIELD    | 0        | 0                              | 0        | 1                      | 0   | 0        |           |
|  |              | EAST HARTFORD | 2        | 1                              | 0        | 0                      | 0   | 1        |           |
|  |              | HARTFORD      | 11       | 0                              | 0        | 9                      | 0   | 10       |           |
|  | Grade 11     | HARTFORD      | 6        | 1                              | 0        | 5                      | 0   | 4        |           |
|  |              | WINDSOR       | 0        | 0                              | 0        | 1                      | 0   | 0        |           |
|  | Grade 12     | EAST HARTFORD | 0        | 0                              | 0        | 1                      | 0   | 0        |           |
|  |              | EAST WINDSOR  | 0        | 0                              | 0        | 1                      | 0   | 0        |           |
|  | <b>Total</b> |               |          | <b>24</b>                      | <b>2</b> | <b>0</b>               | <b>21</b>                                 | <b>1</b> | <b>17</b> |

Note: Wait list/pool refers to those students not enrolled in your school or another interdistrict magnet school who applied for admission to your school for the 2013-14 year. Example: any student who entered a lottery for admission to your school as a first choice that ultimately not placed in any interdistrict magnet school.





***Financial Information***

DIRECTIONS: Provide, as attachments, the last approved ED114 used for the expenditure of resources for this school, the budget narrative for these expenditures, and Schedules 1 and 2 from the attached expenditures and revenues document.



**STATE OF CONNECTICUT**  
**DEPARTMENT OF EDUCATION**



**GRANT AWARD NOTIFICATION**

**REVISION**

**1 Grant Recipient**

HARTFORD PUBLIC SCHOOLS  
960 MAIN STREET  
HARTFORD, CT 06103-1095

**4 Award Information**

Grant Type: STATE  
Statute: C.G.S. 10-264l(d)  
CFDA #: None  
SDE Project Code: SDE000000000002

Grant Number: 064-000 11000-17057-2014-82062-170031-SDE00113

**2 Grant Title**

MAGNET SCHOOL OPERATING

**5 Award Period**

7/1/2013 - 6/30/2014

**3 Education Staff**

**Program Manager:**

Regina Hopkins (860) 713-6549

**Payment & Expenditure Inquiries:**

Karen Calabrese 860-713-6472

**6 Authorized Funding**

Grant Amount: \$2,297,504

Funding Status: Final

**7 Terms and Conditions of Award**

This grant is contingent upon the continuing availability of funds from the grant's funding source and the continuing eligibility of the State of Connecticut and your town/agency to receive such funds.

Fiscal and other reports relating to this grant must be submitted as required by the granting agency. Written requests for budget revisions for expenditures made between July 1, 2013 and June 30, 2014 must be received at least 60 days prior to the expiration of the grant period but no later than May 1, 2014. For grants awarded for two-year periods beginning July 1, 2013, final second-year budget revision requests covering the entire two-year period must be received at least 60 days prior to the expiration of the grant period but no later than February 1, 2015. The grantee shall provide for an audit acceptable to the granting agency in accordance with the provisions of Sections 7-394a and 7-396a of the Connecticut General Statutes. The following attachment(s) are incorporated by reference: ED114.

The grant may be terminated upon 30 days written notice by either party. In the event of such action, all remaining funds shall be returned in a timely fashion to the granting agency.

An estimated 70 percent payment will be made by September 1, 2013. The final payment based on the actual October 1, 2013 enrollment data will be made by May 1, 2014.

This grant has been approved.

5/28/2014

Charlene Russell-Tucker  
Associate Commissioner  
Division of Family and Student Support Services

# BUDGET FORM

Created On: 5/28/2014

## ED 114

**Fiscal Year:** 2014  
**Grantee Name:** HARTFORD  
**Grant Title:** MAGNET SCHOOL OPERATING  
**Project Title:** PATHWAYS TO TECHNOLOGY - HARTFORD  
**Fund:** 11000  
**Grant Period:** 7/1/2013 - 6/30/2014  
**Project Code:** SDE000000000002

**Funding Status:** Final  
**Vendor ID:** 00064  
**Grantee:** 064-000  
**Year:** 2014  
**PROG:** 82062  
**CF1:** 170031  
**CF2:** SDE00113  
**Authorized Amount:** \$2,297,504

### AUTHORIZED AMOUNT BY SOURCE:

LOCAL BALANCE:

CARRYOVER DUE:

CURRENT DUE: \$2,297,504

| CODES | DESCRIPTIONS                               | BUDGET             |
|-------|--|--------------------|
| 111A  | NON-INSTRUCTIONAL                          | 107,228            |
| 111B  | INSTRUCTIONAL                              | 1,420,458          |
| 112A  | EDUCATION AIDES                            |                    |
| 112B  | CLERICAL                                   | 54,317             |
| 119   | OTHER                                      | 180,188            |
| 200   | PERSONAL SERVICES-EMPLOYEE BENEFITS        | 504,136            |
| 321   | TUTORS                                     | 200                |
| 322   | IN SERVICE                                 | 200                |
| 323   | PUPIL SERVICES                             |                    |
| 324   | FIELD TRIPS                                |                    |
| 325   | PARENT ACTIVITIES                          |                    |
| 330   | EMPLOYEE TRAINING AND DEVELOPMENT SERVICES | 2,294              |
| 510   | STUDENT TRANSPORTATION SERVICES            |                    |
| 530   | COMMUNICATIONS                             |                    |
| 560   | TUITION                                    |                    |
| 580   | TRAVEL                                     |                    |
| 590   | OTHER PURCHASED SERVICES                   | 95                 |
| 611   | INSTRUCTIONAL SUPPLIES                     | 21,246             |
|       | ADMINISTRATIVE SUPPLIES                    |                    |
| 690   | OTHER SUPPLIES                             | 7,142              |
| 700   | PROPERTY                                   |                    |
| 890   | OTHER OBJECTS                              |                    |
| 940   | INDIRECT COSTS (Prior FY2015)              |                    |
|       | <b>TOTAL</b>                               | <b>\$2,297,504</b> |

Original Request Date: 9/4/2013

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This budget was approved by Regina Hopkins on 5/15/2014.

Magnet School Name: Pathways to Technology Magnet

District/School Code: 064

| SCHEDULE 2: Revenues by Source                |   |                           |
|---|---|---------------------------|
| Include all projected revenues for the school |   |                           |
| LINE  | CODE DESCRIPTION  | Total Revenue<br>(Col. 1) |
| 220   | xxxx State Magnet Operating Grant                             | \$2,297,504               |
|   | xxxx Other State Grants (please list below)                   |                           |
|   | Priority School Districts                                     | \$40,625                  |
| 221   | xxxx Other Federal Grants                                     |                           |
|   | Title I, Improving Basic Programs                             | \$100,627                 |
|   | Title II Part A, Teachers                                     | \$5,808                   |
|   | CREC MSAP Magnet School Assistant Program                     | \$13,646                  |
|   | CREC MSAP Magnet School No-cost Extension                     | \$132,267                 |
| 222   | 1920 Contributions  |                           |
| 226   | xxxx Other Sources of Revenue (list below, include tuition if |                           |
|   | Multi-Source Private Grant                                    | \$17,847                  |
|   | Tuition Billing-Special Education                             | \$204,512                 |
|   | General Funds   | \$2,138,756               |
| 299   | Total   | \$4,951,592               |

**Magnet School Name:** [Pathways to Technology Magnet School](#)

**District/School Code:** **064-66**

**SCHEDULE 1: Total Current Expenditures from All Sources by Function and Object**

Report All Cash Expenditures and Encumbrances from All Sources Regular and Special Education

**As of June 30, 2014**

| LINE | CODE         | FUNCTION (Program Area)                    | Total *<br>(Col. 1)                  | OBJECT **            |                                  |                                   |                      |                      |                   |  |
|------|--------------|--|--------------------------------------|----------------------|----------------------------------|-----------------------------------|----------------------|----------------------|-------------------|--|
|      |              |  |                                      | Salaries<br>(Col. 2) | Employee<br>Benefits<br>(Col. 3) | Purchased<br>Services<br>(Col. 4) | Supplies<br>(Col. 7) | Property<br>(Col. 8) | Other<br>(Col. 9) |  |
| 1202 | 1000         | Program Expenditures                       | 3,582,510                            | 2,501,437            | 880,150                          | 92,513                            | 88,803               | 14,543               | 5,064             |  |
| 1203 | 2100         | Support Services - Students                | 411,418                              | 374,402              | 30,934                           | 200                               | 5,882                | 0                    | 0                 |  |
| 1204 | 2200         | Improvement of Instructional Services      | 13,929                               | 0                    | 0                                | 13,929                            | 0                    | 0                    | 0                 |  |
| 1205 | 2300         | Support Services - General Admin.          | 41,925                               | 41,597               | 0                                | 328                               | 0                    | 0                    | 0                 |  |
| 1206 | 2400         | School Based Administration                | 420,985                              | 348,632              | 39,567                           | 12,667                            | 12,139               | 0                    | 7,980             |  |
| 1207 | 2600         | Operation and Maintenance of Plant Svc.    | 259,206                              | 127,337              | 35,109                           | 2,063                             | 94,697               | 0                    | 0                 |  |
| 1208 | 2700         | Student Transportation Services *          | 28,134                               | 0                    | 0                                | 28,134                            | 0                    | 0                    | 0                 |  |
| 1209 | 2500<br>2900 | Support Services                           | 110,740                              | 60,361               | 26,004                           | 24,375                            | 0                    | 0                    | 0                 |  |
| 1210 | 3100         | Net Expenditures for Food Services         | 0                                    | 0                    | 0                                | 0                                 | 0                    | 0                    | 0                 |  |
| 1211 | 3200         | Net Expenditures for Enterprise Operations | 0                                    | 0                    | 0                                | 0                                 | 0                    | 0                    | 0                 |  |
| 1212 |              | Indirect Overhead                          |                                      |                      |                                  |                                   |                      |                      |                   |  |
| 1213 |              | <b>TOTAL</b>                               | <b>4,868,847</b><br><b>4,868,847</b> | <b>3,453,766</b>     | <b>1,011,764</b>                 | <b>174,209</b>                    | <b>201,521</b>       | <b>14,543</b>        | <b>13,044</b>     |  |

\* Do not include transportation costs associated with home to school and back home or the excess cost of special education services.

\*\* Definitions of objects and functions are to be consistent with those on expenditure report ED001

**MColman:**  
per Ken Imperato, SDE  
do not include any Food Services expenditures from Lonnie's Food Services Operations books; expenditures in Schedule 1 are to match as closely as possible the ED001 report expenditures.