



# Technology Plan

July 1, 2018 – June 30, 2024

Lakewood Public Schools 34090  
223 W. Broadway  
Woodland, MI 48897  
(616) 374-8043

**Start Date of Plan:** July 1, 2018    **End Date of Plan:** June 30, 2024

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# Lakewood Public Schools Technology Plan 2018-2024

## Table of Contents

|   |         |
|---|---------|
| Technology Plan Cover Page: Section 1.....  | 1       |
| Table of Contents .....   | 2       |
| Introductory Material: Section 2 .....  | 3 - 4   |
| Vision & Goals: Section 3.....  | 5 - 6   |
| I. Curriculum: Curriculum Integration: Section 4.....   | 7 - 8   |
| I. Curriculum: Technology Delivery: Section 5.....  | 8       |
| I. Curriculum: Parental Communication & Community Relations: Section 6.....   | 9       |
| I. Curriculum: Collaboration: Section 7.....  | 9       |
| II. Professional Development & Supporting Resources: Sections 8 & 9.....  | 10 - 12 |
| III. Infrastructure, Hardware, Technical Support & Software:<br>Infrastructure Needs/Technical Specification, & Design: Section 10..... | 13 - 14 |
| III. Infrastructure, Hardware, Technical Support and Software:<br>Increase Access Section 11.....                                       | 15      |
| IV. Funding and Budget:<br>Budget and Timetable/ Coordination of Resources: Sections 12.....  | 15 - 16 |
| IV. Monitoring and Evaluation: Evaluation: Section 13.....  | 16      |
| IV. Monitoring and Evaluation: Acceptable Use Policy: Section 14.....   | 16 - 17 |

## **Introductory Material: Section 2**

### **District Mission Statement**

Preparing our students for success.

### **District Profile**     *(Updated June 2018)*

The Lakewood Public Schools, located in central Lower Michigan, was established in 1963 as a result of the consolidation of the former districts of Lake Odessa, Woodland, Sunfield and Clarksville. The 250 square mile area is located in parts of Ionia, Eaton, Barry and Kent counties.

Lakewood Public Schools has **196** total employees with 98 certified teachers. Our district consists of 4 buildings: 1 high school, 1 middle school, and 2 community elementary schools. Enrollment in the fall of 2017 was **1826** students: **665** elementary, **575** middle school, **586** high school. Approximately **44%** of the student population is eligible for the federal Free or Reduced Lunch Program.

### **Historical Perspective**

In 1995, the voters approved a technology bond, which generated about 1.2 million dollars to improve technology in the schools. With these funds, LPS was able to construct a wireless WAN system to connect the entire district, provide internet access to every office and classroom, create computer labs in each school and at least one computer in every classroom. In 2004, the WAN was extended to include the Ionia ISD, thus improving the connectivity and access to the AS 400 server, which hosts the shared business and student record keeping systems for the county.

In 2007, the voters approved a 30 million dollar bond in which 1 million was earmarked for technology. It was the goal of these dollars to improve technology in our district by improving servers, hardware, and software. As of June 30, 2011, this goal was completed.

In the 2016-17 school year, all teacher laptops were updated and wireless infrastructure at all buildings was upgraded. All upgrades were paid for with the general fund. Classroom technology needs and innovations (e.g. chromebooks, Ipads, Interactive Smart Projectors, LCD Digital Boards, etc.) has also been met through grant-writing (e.g. LEF grants).

## **School Buildings:**

### **Lakewood High School**

7223 Velte Road  
Lake Odessa, MI 48849  
(616) 374-8868  
Grades: 9 – 12  
Teachers: 31  
Students: 589

### **Early Childhood Center**

223 West Broadway  
Woodland, MI 48897  
(269) 367-4935  
Grades: KS-K  
Teachers: 10  
Students: 176

### **Lakewood Middle School**

8699 East Brown Road  
Woodland, MI 48897  
(616) 374-2400  
Grades: 5 – 8  
Teachers: 28  
Students: 575

### **Lakewood Elementary School**

812 Washington Blvd  
Lake Odessa, MI 48849  
(616) 374-8842  
Grades: 1 – 4  
Teachers: 29  
Students: 489

## **District Technology Committee**

This plan was developed through the compilation of input and work from different stakeholder groups. The district technology committee met several times during the 2017-2018 school year to discuss various aspects of this plan.

## **Committee Members**

Jay Lerner, Assistant Superintendent  
Michael Beach, Director of Technology  
Shirley McMillen, LES Technology Teacher  
Eric Hall, LHS Teacher  
Michelle VanDuine, LECC Teacher  
Teresa Foltz, LECC Teacher  
Russ Miller, LMS Teacher

## Vision and Goals: Section 3

### **District Vision Statement**

As a community we will: Educate, Empower, and Equip our students for life.

### **District Mission Statement**

Preparing our students for success.

Our guiding principles provide the framework for moving toward our mission:

- *Our exceptional staff will always focus on our children first.*
- *Parent, staff and the community share the responsibility of working together for the benefit of all students.*
- *We will provide an emotionally and physically safe learning environment.*
- *Ongoing assessment guides continuous improvement within our learning environment*
- *Individuals within our district must be accountable for maintaining a positive learning environment.*
- *Teaching and best practices will support our students in the global economy*
- *Service to their community is a valuable part of a student's education.*
- *To model respectful and ethical behaviors and treat all with equality and integrity.*

## **Technology & District Strategic Plan Alignment**

Based on the Lakewood Public Schools Strategic Plan [strategic plan](#)., the following goals were identified as focus areas for the district technology plan:

- **Curriculum Goal: To integrate the use of technology in all curricular areas. Technology is to be used as a tool for teaching and learning.**
  - Target 1, Goal 1: Provide all students with high quality instruction, ensuring all students achieve a year's growth in a year's time so that all schools maintain a standing in the top 25% of the state.
  - Target 1, Goal 2: Provide all students with a rigorous, aligned, 21<sup>st</sup> century curriculum.
- **Professional Development Goal: Encourage the effective integration of technology into the classroom through needs-based professional development and ongoing support.**
  - Target 4, Goal 3: Establish and maintain a comprehensive, long-term staff professional development plan for all employees that is focused on meeting student needs.
- **Technology Infrastructure Goal: To provide as much access to technology tools while maintaining a 95% up time on the equipment.**

- Target 3, Goal 2: Develop capital use/needs plan for all district facilities, properties, and equipment.
- **Budget and Funding Goal: To maximize the use of our funds spent on technology while continually looking at the total cost of ownership and to seek other alternative sources of funding for technology.**
  - Target 2, Goal 2: Appropriate and efficient procedures and internal controls are maintained by the business office and all departments.
  - Target 3, Goal 2: Develop capital use/needs plan for all district facilities, properties, and equipment.
- **Monitoring and Evaluation Goal: Implement the use of an evaluation tool to identify instructional needs and monitor progress in order to improve student achievement.**
  - Target 1, Goal 1: Provide all students with high quality instruction, ensuring all students achieve a year's growth in a year's time so that all schools maintain a standing in the top 25% of the state.
  - Target 1, Goal 2: Provide all students with a rigorous, aligned, 21<sup>st</sup> century curriculum.

# I. Curriculum: Curriculum Integration: Section 4

**Goal: To integrate the use of technology in all curricular areas as the needs are determined. Technology is to be used as a tool for teaching and learning.**

## **Strategic Plan Alignment:**

- Target 1, Goal 1: Provide all students with high quality instruction, ensuring all students achieve a year's growth in a year's time so that all schools maintain a standing in the top 25% of the state.
- Target 1, Goal 2: Provide all students with a rigorous, aligned, 21<sup>st</sup> century curriculum.

## **Curriculum Integration Action Steps:**

### **Action Step 1: Create and implement a district technology integration plan.**

#### **Strategies:**

- Develop the three levels of technology integration: Teacher Use, Teacher Guided Technology, and Students Use Technology Independently
- Determine best technology for grade levels based on curricular needs.
- Work with Professional Learning Communities on current technology integration.
- Align K-12 technology curriculum (technology classes) to the MITECS.

#### **Measurement Tool:**

- Professional Learning Community meeting notes
- Observations – classroom or building
- MITECS Checklist
- Complete a self assessment technology survey
- School Systems Review

#### **Goal Alignment:**

- Lakewood Technology Plan
- Michigan Integrated Technology Competencies for Students (MITECS)
- Lakewood School District Strategic Plan
- Lakewood District School Improvement Plan: Assurances: Technology & Goal Strategies

## [LPS Technology Integration Plan](#)

### **Action Step 2: Improve Technology Literacy for all learners.**

#### **Strategies:**

- Collaboration between teachers, staff, and administration.
- Awareness and use of current district hardware, software and trainings.
- Easy access to online tools via the district website.

**Measurement Tool:**

- Usage Statistics.
- Professional Learning Community meeting notes.
- MITECS Checklist.
- Surveys

**Goal Alignment:**

- Lakewood Technology Plan
- Michigan Integrated Technology Competencies for Students (MITECS)
- Lakewood School District Strategic Plan
- Lakewood District School Improvement Plan: Assurances: Technology & Goal Strategies.
- Surveys

**Action Step 3: Adoption of New Technologies to Enhance Instruction****Strategies:**

- Implement 21<sup>st</sup> Century Skill Classroom instruction.
- Identify current hardware/software that enhance classroom instruction.

**Measurement Tool:**

- Increased or consistent scores on state mandated assessments.
- Self Assessment Technology Survey for staff, parents and/or students.
- Professional Learning Community meeting notes.

**Goal Alignment:**

- Lakewood Technology Plan
- State Mandated Curriculum/Assessments
- Michigan Integrated Technology Competencies for Students (MITECS)
- Lakewood School District Strategic Plan
- Lakewood District School Improvement Plan: Assurances: Technology & Goal Strategies.

**I. Curriculum: Technology Delivery: Section 5**

Lakewood Public Schools provides online courses for secondary students to provide opportunities to earn and/or recover necessary credits for grade advancement. Faculty review and utilize software programs in preparation for student assessments. Some of these programs include but are not limited to: Apex Learning & e2020 (Online courses), Career Cruising (Career Preparation and Educational Develop Plan creation), Ren Place (Accelerated Math and Reading), and Khan Academy (Online SAT tutorial)

## **I. Curriculum: Parental Communication & Community Relations: Section 6**

Lakewood Public Schools uses a variety of media to communicate with our parents and community. Each building publishes a newsletter that is available to all stakeholders. Most KS-5 classrooms send home a weekly newsletter to parents. The *Superintendent's Corner* is a regular article featured in the local newspaper The Lakewood News. The district also publishes an annual report that summarizes our progress on goals. Board of Education meetings are open to the public and minutes of those meetings are posted on the district website, <http://www.lakewoodps.org>. Lakewood Public Schools District maintains a district page on a social networking site (Facebook) as well as an instant alert system that brings news directly to parents via email, cell phones, and smartphones.

Our district website, <http://www.lakewoodps.org> provides access to much of the information mentioned above. Links are also available for staff, students, and the community to access media resources such as recommended electronic sources. Students and parents can also link to teacher web pages listing grades, classroom assignments, recommended resources and up-to-date news. Secondary school students and parents can link to their Educational Development Plan (EDP) through a career subscription service (Career Cruising), which provides extensive career and college planning information.

## **I. Curriculum: Collaboration: Section 7**

**Students & Staff:** We currently offer technology courses to our students through our traditional school day and provide staff with technology in-services. Our staff can take advantage of online professional development site for a variety of courses.

**Parents:** During open houses and parent conferences we offer technology training for our parents focusing on the parent portal of the student information system.

**Community:** The district maintains a guest network at each location that is accessible to all wireless devices. The guest network is available to all persons located in Lakewood Public Schools buildings.

## II. Professional Development: Section 8

**Goal: Encourage the effective integration of technology into the classroom through needs-based professional development and ongoing support.**

### **Strategic Plan Alignment:**

- Target 4, Goal 3: Establish and maintain a comprehensive, long-term staff professional development plan for all employees that is focused on meeting student needs

Professional development for **all staff** in Lakewood Public Schools is provided by a wide variety of sources. Training opportunities will be offered year-round before school, during the school day, after school, and during the summer. The district uses a variety of sources for professional development including but not limited to webcasts, webinars, direct instruction, and online instruction to identify and promote curriculum and teaching strategies that integrate technology effectively into instruction. The technology based learning opportunities for teaching staff focus on the integration of technology into the curriculum and lesson plans.

Professional development is aligned with the MITECS (Michigan Integrated Technology Competencies for Students). They are meant to provide teachers with an outline of learning expectations and will be used to drive educational technology literacy assessments for the future. The goal is that the MITECS will ultimately be integrated into the various other content areas as well as part of the technology classes.

Sample of training opportunities:

**Michigan Integrated Technology Competencies for Students (MITECS)** **MITECS:** Teachers will receive information and professional development on the integration and implementation of the MITECS. Professional Development will support teachers implementation of the MITECS into lesson/unit plans. Teachers will learn to develop rigorous and student-friendly learning goals and targets that use the technology standards.

**Student Information Systems:** A web-based service that allows teachers to upload students' grades from a computerized gradebook to the Internet where the student and parent can access the information. The student information system program provides an instructional web space that teachers can use for classroom content information (assignments, tests, projects, calendars, etc.) This service also features student schedules, food service, transportation, and leveled student data as well as information required for state and federal reporting.

**Curriculum Crafter:** The Curriculum Crafter Tool is a web-based curriculum management and design tool that offers embedded, researched-based curriculum that is aligned to the state standards and common core curriculum.

**Data Warehouse:** Participants will learn the use of a data warehouse (e.g. IGOR, CollegeBoard) and data mining. They will learn how to customize reports for student achievement and data analysis. More advanced learners will learn to use other time-saving aspects of a data warehouse such as reports, disaggregate student performance data, and input common assessment results.

**Intro to Technology Devices, Operating Systems, & Applications:** Participants will gain usable ideas for using selected devices to increase learning options. They will learn how to critique and evaluate content-based operating systems and applications using Bloom's Digital Taxonomy. Participants will develop a lesson plan using the devices and/or applications as a tool for instructional delivery, formative assessment strategies, and evaluating student work.

**Open Source Learning:** Participants will be introduced to open source learning and how to organize and implement lessons using best practice methods to introduce students to online learning.

## **II. Supporting Resources: Section 9**

**Sample Services Include:** District Email, Website Navigation/Professional Development documentation, SchoolDude (Maintenance and Technology requests), IGOR – Data Warehouse, Curriculum Crafter, Learn 360, Career Cruising, Student Information Systems, Honeywell Instant Alert.

### **Online Subscriptions - District Supported**

| Name                 | Description  | URL   |
|----------------------|--|---|
| Renaissance Learning | Educational software and technology to improve student learning in Math and Reading. | <a href="http://hosted221.renlearn.com/134037">http://hosted221.renlearn.com/134037</a> |

|                 |  |   |
|-----------------|--|---|
| NWEA            | Educational software and technology to improve student learning in Math and Reading. | <a href="https://sso.mapnwea.org/auth/login">https://sso.mapnwea.org/auth/login</a>               |
| Career Cruising | An Internet-based career exploration and planning tool                               | <a href="http://www.careercruising.com">http://www.careercruising.com</a>                         |
| Follett Destiny | An electronic database of resources available at the library media centers           | <a href="http://www.lakewoodps.follettdestiny.com/">http://www.lakewoodps.follettdestiny.com/</a> |
|                 |  |   |

**Other**

- District Policies <http://www.neola.com/lakewood-mi/>
- Software Manuals On file at the Technology Office
- Student Information System Grades, schedules, student management, attendance
- REMC 8 <http://www.kentisd.org>
- School Website [www.lakewoodps.org](http://www.lakewoodps.org)

Each school in Lakewood Public Schools has at least one fully equipped computer lab, which is available for students and staff use. The technology department is available for assistance and trouble-shooting.

### III. Infrastructure, Hardware, Technical Support and Software: Infrastructure Needs/Technical Specification, and Design: Section 10

**Goal:** To provide as much access to technology tools while maintaining a 95% up-time on the equipment.

**Strategic Plan Alignment:**

- Target 3, Goal 2: Develop capital use/needs plan for all district facilities, properties, and equipment.

Based on the goals set forth by the Technology Planning Committee we currently have the following technology enhancements to improve teaching and learning.

| <u>Type of Technology</u>           | <u>Current Status - Infrastructure</u>                               |
|-------------------------------------|--|
| <b>Wide Area Network</b>            | All locations fiber interconnected.                                  |
| <b>Broadband</b>                    | High speed Internet/Data distribution at the classroom level         |
| <b>Remote Access</b>                | Remote administration from outside                                   |
| <b>Internet</b>                     | 250 Mbs provided by Wide Open West                                   |
| <b>Servers</b>                      | 2 VMware servers hosting 20 virtual servers, 1 web filter            |
| <b>Wireless Access</b>              | Wireless access all locations  |
| <b>Library Automation</b>           | Destiny Follett (web based) automated media system                   |
| <b>Phone System/Cell phones</b>     | Multiple providers in the district.                                  |
| <b>Uninterruptible Power Supply</b> | All locations  |
|                                     |  |
| <u>Type of Technology</u>           | <u>Current Status-Computers, Peripherals, Printing ,and Software</u> |

|                                      |   |
|--------------------------------------|---|
| <b>Computer workstations/devices</b> | 1250 computer workstations/devices  |
| <b>Library Search</b>                | Computers - media search stations using an automated library system K-12(Destiny Follett)   |
| <b>Peripherals</b>                   | Portable computers for Administrators & Teachers  |
| <b>Software</b>                      | K-12 Lakewood Public Schools report cards<br>Grading software to interface with management system for progress reports, attendance and report cards and web access for online grade reports for parents |
|                                      | Instructional software appropriate by grade level   |
|                                      | District employee email system  |
|                                      | Anti Virus for network and desktops   |
|                                      | Web Filtering, Internet Spam, Virus   |
|                                      | Network Operating Systems   |
|                                      | Online printing intranet system   |
|                                      | Windows OS and Office Suite, MAC OS with iLife and iWorks   |
|                                      | Assistive technology software   |
| <b>Safety and Security</b>           | Provide emergency communication network (phones, radios)  |
|                                      | Outdoor & Indoor security cameras for buildings   |
|                                      | HVAC access and control software  |
| <b>Website/App</b>                   | District website: <a href="http://www.lakewoodps.org">http://www.lakewoodps.org</a><br>District App   |

### **III. Infrastructure, Hardware, Technical Support and Software: Increase Access: Section 11**

Our goal is to allow access to all stakeholder groups. This will support a 21<sup>st</sup> century learning environment, increase communication, and create more technology education for everyone.

### **IV. Funding and Budget: Budget and Timetable: Section 12**

**Goal: To maximize the use of our funds spent on technology while continually looking at the total cost of ownership and to seek other alternative sources of funding for technology.**

**Strategic Plan Alignment:**

- Target 2, Goal 2: Appropriate and efficient procedures and internal controls are maintained by the business office and all departments
- Target 3, Goal 2: Develop capital use/needs plan for all district facilities, properties, and equipment.

#### **Technology 2018-2024**

|                      | 2018-19         | 2019-20          | 2020-21         | 2021-22         | 2022-23         | 2023-24         |
|----------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| Hardware Maintenance | \$15,000        | \$15,000         | \$15,000        | \$15,000        | \$15,000        | \$15,000        |
| Hardware Replacement | \$30,000        | \$45,000         | \$45,000        | \$45,000        | \$45,000        | \$45,000        |
| Licenses/Software    | \$10,000        | \$10,000         | \$10,000        | \$10,000        | \$10,000        | \$10,000        |
| Servers/Network      | \$0             | \$50,000         | \$0             | \$0             | \$0             | \$0             |
| Contracted Services  | \$15,000        | \$15,000         | \$15,000        | \$15,000        | \$15,000        | \$15,000        |
| <b>Total</b>         | <b>\$70,000</b> | <b>\$135,000</b> | <b>\$85,000</b> | <b>\$85,000</b> | <b>\$85,000</b> | <b>\$85,000</b> |

## **IV. Funding and Budget: Coordination of Resources:**

### **Section 13**

The district uses Title IID funds for the purpose of funding professional development.

In order to support the District Technology Plan and Strategic Plan, the district school improvement team and technology committee will begin to investigate alternate sources of funding for technology, including, but not limited to foundations, grants, and private donations.

## **IV. Monitoring and Evaluation: Evaluation: Section 14**

**Goal: Implement the use of an evaluation tool to identify instructional needs and monitor progress in order to improve student achievement.**

### **Strategic Plan Alignment:**

- Target 1, Goal 1: Provide all students with high quality instruction, ensuring all students achieve a year's growth in a year's time so that all schools maintain a standing in the top 25% of the state.
- Target 1, Goal 2: Provide all students with a rigorous, aligned, 21<sup>st</sup> century curriculum.

The Technology Plan Committee will meet annually for the sole purpose to evaluate the technology plan. Results from all of the evaluation components listed below will be shared with the Board of Education.

### Measures:

1. Surveys
2. Interviews
3. Observations
4. Committee review
5. Course instructions assessments (exams)
6. Online assessments
7. Successful course completion

In addition, faculty and staff will be surveyed annually to examine the effectiveness of the Technology Department including but not limited to:

§ Quality of Service

§ Level of Service

§ Help desk, repairs