

# EXHIBIT 1

## **PROFESSIONAL LEARNING PLAN FOR USE OF INSTRUCTIONAL TECHNOLOGY IN THE CLASSROOM**

This document sets out TUSD's plan to provide continuing professional instruction to ensure that all teachers at TUSD are or become proficient in the use of instructional technology in TUSD classrooms. The primary responsibility for realizing this goal rests with the Instructional Technology Department.<sup>1</sup>

The department is led by its director, who reports to the Chief Technology Officer of TUSD. There are five Educational Technology Integration Specialists (ETIS) in the department who report to the director. One ETI Specialist is assigned to each of the five TUSD regions, and is responsible for coordinating and conducting teacher training within that region, along with supporting teachers, and administrators in their region through customized training, co-facilitation of school-site professional development, and support for utilization of the Microsoft Educator Community (MEC), is discussed in more detail below.

Updating to Windows 10 and using Microsoft Office 365 has provided innovative opportunities for teachers to engage their students while improving learning outcomes and exposing students to skills they will need in the workforce. Microsoft solutions supports Tucson Unified's district-wide technology goals. Microsoft has featured the District in one of their "School Stories," which is posted on the Microsoft Educational Technology website by schools around the world that are using Microsoft technology to create immersive teaching and learning experiences.<sup>2</sup>

To further support the integration of technology in the classroom at the school-site level, the District uses Teacher Technology Liaisons (TTLs) for technology instruction and instructional peer coaching. The International Society for Technology in Education (ISTE), the foremost global organization in expanding the use of educational technology in the classroom, promotes the use of instructional technology coaching as a prevalent method of deploying ongoing professional learning for teachers with a specific focus on the integration of technology into both the curriculum and method of instruction. Each ETIS coordinates and supports the activities of the TTLs in their respective regions.

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<sup>1</sup> This version is as of October 10, 2019, and includes and restates (a) the prior plan filed at 2152-1, and (b) the supplemental filing with ECF 2220.

<sup>2</sup> Microsoft School Stories: <https://customers.microsoft.com/en-us/story/tucson-unified-school-district-education-windows10-office365>

A TTL is usually a teacher on campus who enjoys working with technology and has expertise in the use of classroom technology. TTLs are required to attend monthly meetings where they learn or brush up on technology skills, which are specifically selected by the ETIS team based on the current school year's Instructional Technology's professional learning goals (See Exhibit B). The TTL's role is to provide extra site-based support and professional learning to their peers and staff. Specifically, TTLs will deliver up to 45 hours per semester of one-on-one, small group, or online instructional technology professional learning to teachers based upon teacher needs. TTLs receive a stipend and specialized training for instruction and coaching at their schools. Tucson Unified is one of at least five school districts in Arizona, along with other districts across the country, to use a similar model of TTLs to deliver instructional technology professional learning to teachers.<sup>3</sup>

**A. Use of Technology in the Classroom Assessment**

Twice each year, the District's IT team coordinates a district-wide assessment of each teacher's proficiency to assess needs for professional instruction and the areas and levels of that instruction. The District has revised its assessment for instructional technological proficiency so that it is no longer a self-assessment but it asks more questions. (See Exhibit A for a copy of the current assessment instrument).

The results are tracked on an individual and school-wide basis and (along with the classroom observations discussed in section C, below) are used to identify teachers with specific training needs in the use of technology in classroom instruction. The IT department uses the assessment results to guide and assess its instructional efforts, including providing personalized professional learning when needed. Assessment results inform the following year's professional learning needs and any necessary amendments to the plan.

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<sup>3</sup> Arizona School Districts with a similar TTL model: Vail Unified School District, Cave Creek School District, Washington Elementary School District, Creighton School District, and Tucson Unified School District.

**B. Professional Learning Courses with Content on Use of Technology Instruction**

Instructional Technology professional learning focuses on the integration of classroom technology with all content area curricula. In these courses, teachers first learn how to use technology tools effectively in classroom instruction and then learn about applying it to specific content areas. Presenters use real-life examples from different grade levels and subject areas in District classrooms to demonstrate how the content of the training applies for all grades and subjects. These courses are taught by teachers who are current or former TTLs from different grade levels and with expertise in many content areas. These teacher trainers reinforce the training information and provide content-specific pedagogy. Professional learning allows teachers to identify and internalize ways in which they can adapt the technology tools and platforms for content-specific pedagogy. The District makes decisions regarding specific course content, grade level, and pedagogy using the ISTE Standards.<sup>4</sup> In addition, the ETIS team provides professional learning content-specific courses and trainings by request at schools and at District department-specific trainings.

Group discussions and demonstrations are embedded into professional learning wherever appropriate. Participants are given time to identify content-specific uses and are encouraged to collaborate with teachers from the same grade levels or subject areas to share content-specific ideas about the uses of the technology presented.

The technology with which the District expects its teachers to be proficient in classroom instruction are the following:

1. Basic Windows computer user operations, including logging in; using a browser, word processor, spreadsheet, email, and presentation software; and creating, saving, and retrieving files. The District uses the standard Microsoft tools for these functions, including Word, Excel, Outlook, and PowerPoint. The District uses IT department designs and delivers technology professional development in order to become acclimated to the specific learning and productivity technology tools.

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<sup>4</sup> ITSE standards include standards for Students, Educators, Education Leaders, Coaches, and CS Educators.

2. Smartboard/whiteboard, including creating flipcharts, navigating among windows and screens, and performing standard whiteboard operations. The use of interactive whiteboards is integrated into all of levels of learning and content areas, as it is a highly versatile tool. It supports many multimedia materials, such as images, texts, and audio and video files, creating more interesting lessons to suit the different needs of students.
3. The District's student information system, Synergy, for teachers/classroom functions, including recording attendance and grades, creating and posting assignments, generating reports, and using and retrieving information to monitor day-to-day student progress.
4. The District's primary student assessment software, SchoolCity, for developing and tracking assessments, reports, and pivot tables, and for monitoring student progress and achievement. In addition, professional learning is provided for online intervention programs such as SuccessMaker for K-8 and Edgenuity for 6<sup>th</sup> grade through high school.
5. Advanced teaching tools, available through Office 365, including Teams, Sway, Forms, and One Note. Office 365 is an online collaboration and productivity space for educators to collaborate with colleagues, students, and staff and to assign and provide feedback to students' work. In addition to the standard productivity tools such as Word, Excel, and PowerPoint, Office 365 has new tools that can collect data in seconds, record student work visually and audibly with the touch of a button, and translate conversations in real time in different languages. One of the biggest advantages of Office 365 is the ability to facilitate online professional learning communities (PLCs), within the District and nationally.

The District provides and delivers professional learning courses and trainings on classroom integration of technology in the following ways:

1. One-on-one instruction and coaching by TTLs at their school sites. With monitoring and support from the ETIS, the TTLs use the school results of the Use of Technology in the Classroom Assessment and the Technology Integration Observation Tool, as well as principal and teacher specific requests, to guide

professional learning.

2. Group instruction through PLCS, presented by TTLs. Based on teacher or principal requests and school-level assessment results, TTLs present group instruction in job-embedded manner in PLCs, facilitated by the 7-period day where applicable.
3. True North Logic online courses through the District's online instructional professional learning platform. Exhibit C shows a sampling of courses provided for integrating technology into classroom curriculum. In many of the courses, participants learn the functionality of a specific technology tool or software, how to integrate its use within most content areas, and how to create interactive lessons using the applied technology to keep students engaged. All courses in True North Logic have end-of-course assessments. Upon attaining a score of 80 percent or higher on the assessment, teachers receive professional development credit and can reference the available course materials.
4. Microsoft online courses through the Microsoft Educator Community. The MEC provides on-demand courses that focus on integrating technology into classroom teaching. One course example is learning how to use Microsoft learning tools that improve reading and writing regardless of ability or age. Another example is how to build collaborative classrooms, connect in PLCs, and connect with colleagues by learning how to use class teams. Teachers can learn how to incorporate Skype in the Classroom Virtual Field Trips into their lesson plans for any subject and grade. (See Exhibit D for a sampling of classes available through MEC).

Participants must complete an end-of-course assessment measuring their proficiency in the subject matter in order to receive credit for that course. Credit is granted when the participant achieves a score of 80 percent on the assessment. Course information remains available for future reference by those participants who pass.

5. Live classes offered during the summer. The District provides live courses that are assessed using the general professional learning assessment rubric.

During the annual planning session in March of each year, the District considers and evaluates the assessments to add or adjust classes to meet current classroom instructional technology needs for teachers, administrators, and staff.

6. Verizon Innovative Learning School Project. The District received a \$5.8 million grant as part of this two-year school project. To qualify for consideration of the grant, schools had to have grade levels 6-8, a STEM focus, and 65 percent or more of their students qualifying for the free and reduced lunch program. The students in 6-8 grades at Lawrence, Mansfeld, and Pueblo Gardens are participating in this special project, which has the possibility of continuing for a third year.

The project provides each student with an iPad to use on and off campus. To ensure students' continuous access to educational content, students also receive a data plan to support those who may not have access to internet at home. The school project coach and teachers of each participating school began professional learning in April 2019 and will continue extensive trainings delivered by Digital Promise throughout the duration of the project. To incorporate students into the project, Student Tech teams have been created at each site. The ETIS team also is involved in trainings and support.

### **C. Evaluating the Efficacy of TTLs and Technology Instruction**

The District has implemented a process to monitor and evaluate TTL activities to ensure they are providing the required level of teacher support. Instructional Technology staff is responsible for this oversight, as described below. Different monitoring and evaluation methods are used to provide comprehensive information to analyze and make any necessary modifications.

#### **1. Evaluation Monitoring Process**

The ETISs conduct a "Kick-Off" orientation meeting at the beginning of the school year to review the TTL program requirements, roles, and responsibilities. TTLs meet for their own training, provided by the ETIS. Throughout the year, the members of the ETIS team connect and communicate with individual TTLs on an as-needed basis, answering questions and providing an extra layer of support or

training.

The school principal evaluates the TTL using the Danielson framework<sup>5</sup> and directs the TTL during the school year, with help from the ETIS. The principal selects and nominates the TTL at the beginning of each school year. At the end of the school year, the principal evaluates the effectiveness of the TTL at each school and uses the evaluation and input from the ETIS to inform the selection of the school's TTL for the following school year.

## 2. **Methods of TTL Evaluation**

- a. *TTL Time Entry Spreadsheets*: TTLs are required to complete a Time Entry spreadsheet throughout the school year to document the category of the training or support provided, the amount of time and the method of delivery (individual, small group, or large group). The regional ETIS periodically monitors the spreadsheets to ensure they are completed and to determine fulfillment of the obligations of the TTL program.

Data from the Time Entry spreadsheets and from a mid-year needs assessment survey is used to inform and enhance the TTL program. Training needs are identified and incorporated, as evidenced by the evolving nature of the structure and training focus of the TTL program. The program for new TTLs is differentiated, as required trainings will have the same components as the previous year to ensure new TTLs are as knowledgeable about Office 365 as experienced TTLs.

- b. *TTL Course Requirements*: TTLs are required to fulfill four course hours per semester engaged in specific training designed to enhance and expand their instructional technology knowledge and competency. The courses may be through either the Microsoft Educator Community and successful completion of a quiz or participation in a virtual, live course facilitated by the ETIS through True North Logic. Tucson Unified will provide courses,

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<sup>5</sup> TTLs are teachers, counselors and other curriculum providers. The District evaluates teachers using the Danielson Framework; the District evaluates counselors and other curriculum providers using the appropriate instrument based on the Danielson framework.

through both the Microsoft Educator Community and ETIS, based on identified needs at schools and the District testing calendar.

c.. *Technology Integration Observation Tool (See Exhibit E)*. Each of the five ETIS will use the Technology Integration Observation Tool document to capture, over the course of each school year, approximately 900 individual observations regarding the use of technology in the classroom. The District will then analyze the data and work with appropriate teachers and staff to further increase technology use for instruction in the classroom.

The observation results, along with results from the technology assessment, will be used to guide deployment of professional learning resources in the development and maintenance of effective coursework, in the delivery of instruction, and in evaluating the effectiveness of TTLs in each school.

**D. Professional Learning for School for Administrators**

The District provides professional learning for school administrators in the use of technology in connection with administration and management of school operations. Administrators have the opportunity to take courses and trainings on technology tools that are relevant for a school administrator as well as on professional learning and understanding of the current technology tools that are available for use by classroom teachers.

Administrators attend trainings on how to evaluate teachers in the effective use of technology in the classroom. Because school administrators are responsible for classroom teacher evaluations and feedback, the IT team will provide training during ILA sessions on how to make judgements on effective integration of technology the classroom. As with teachers, the ETSI also will provide administrator training on an as-needed and requested basis.

The following chart provides examples of trainings available to school administrators.

**TECHNOLOGY COURSES USEFUL FOR ADMINISTRATORS**

| <b>Course</b>   | <b>Course description</b>   |
|---|---|
| Office 365 for Administrators   | Upon successful completion of this course, participants will be able to utilize tools in Office 365.. Participants also will be able to navigate the MEC to receive targeted online professional development.   |
| Microsoft Educator Community  | What MEC is and how to navigate the various features. Review course lists.  |
| Evaluating Instructional Technology in the Classroom for Administrators     | Focuses on how to make judgements and evaluate teachers in the use of instructional technology in the classroom.  |
| ParentLink  | Navigation of ParentLink; Sending mass messages through ParentLink.   |
| Promethean Board  | Introduces the main features of the Promethean Board and guides participants through the basic skills required to create flip-charts and use the system.  |
| Office 365 Bootcamp for Principals  | In this hands-on class, participants come away with tools that can be used immediately. They learn how to create a Microsoft Team to help facilitate PLCs, learn about OneNote to interact with school staff, and they learn how to incorporate Microsoft Forms for meaningful data. collection |
| LAD Language Learning Symposium for K-12 Administrators, ELD, Dual Language | Best practices for second language learners, sheltered instruction, and technology integration for SEI and TWDL classrooms.   |

**E. Individualized Professional Learning**

The IT department believes that primary professional learning regarding the use of the major elements of instructional technology used in the classroom in the District (e.g., whiteboards, document cameras, SchoolCity assessments, and use and operation of Office 365 tools) is most efficiently and effectively delivered in either in-person or online group instructional settings. More individualized professional learning regarding the use of the available tools (including examples of integration of the tools into specific lesson plans) is provided through of the following approaches.

1. To the extent that teachers have specific questions, or want to understand how to work technology tools into specific lesson plans, TTLs in each school function as a resource locator and clearinghouse for individual requests.
2. The five ETIS, along with TTLs at each school, use results of the technology assessment to assess and guide them in providing individual coaching and instruction to particular teachers.
3. The five ETIS spend a significant portion of their time at schools, providing specific instruction at the request of a TTL, teacher, or PLC.
4. Finally, the MEC, available online to each teacher in the District, has a wealth of resources for individualized application of technological tools to almost every teaching situation, providing a truly individualized opportunity for professional learning regarding the use of technology in classroom instruction.

# EXHIBIT A

**Exhibit A**

**Assessment of Use of Technology in the Classroom**

**Please list your school: \_\_\_\_\_**

**Please list the grade or courses you teach: \_\_\_\_\_**

**Please select the best answer(s) for each question below:**

1. Which of the following are benefits for integrating the use of whiteboards into classroom instruction?
  - A. Increase individual student engagement
  - B. Increase whole group engagement
  - C. Increase small group collaboration
  - D. Enhance content delivery
  - E. All of the above
  
2. When using a Promethean Board for instruction or when working with a flip chart, which of the following is the best tool to fix mistakes or to return to what the flip chart used to look like?
  - A. Delete button
  - B. Undo button
  - C. Trash can
  - D. Spray bottle button
  
3. When using a Promethean Board for instruction, which tools can remove annotations?
  - A. Eraser
  - B. Spray bottle
  - C. Red x-delete button
  - D. All of the above

4. The most effective way to engage students using an interactive white board is:
  - A. Using it as a projector screen
  - B. Using it with an interactive website (ex. Google Maps)
  - C. Using it with the companion software (ex. ActiveInspire, Smart Notebook)\*
  
5. The most effective way to utilize an individual learning platform (ex. SuccessMaker) is:
  - A. Using it with individual computers
  - B. Using it for whole group presentations
  - C. Using it for small group collaborations
  
6. Document cameras are a best used to:
  - A. Project small text onto a screen
  - B. Demonstrate a process using manipulatives
  - C. Record an activity for later viewing
  
7. A good way to capture and display small group collaborative work is:
  - A. By using word processing software
  - B. By using spreadsheet software
  - C. By using presentation software
  
8. When writing an essay, the best device to use is:
  - A. A tablet device
  - B. A phone
  - C. A desktop/laptop computer

9. One advantage of students using a tablet device is:
- A. They have very long battery life
  - B. They have large screens
  - C. Younger students don't have to use the mouse/trackpad and oversized keyboards
10. Wireless tablets and mirroring capabilities are beneficial for teachers because they allow the teacher to move freely around the room.
- A. True
  - B. False
11. The benefits of flipped learning include: Check all that apply.
- A. It gives equal access to all students
  - B. Teachers can gauge student understanding at a deeper level
  - C. It opens the door of your classroom
  - D. It preserves instructional time
12. With Microsoft Teams, teachers can: Choose all that apply.
- A. Create a Class OneNote notebook
  - B. Assign periodic due dates for various parts of the writing assignment
  - C. Share documents with students digitally
  - D. Enter writing grades into their gradebook
13. OneNote Online features include;
- A. Embedding YouTube, Sways and other online content directly on a OneNote page
  - B. To Do Tag functions to keep track of task completion
  - C. Real time feedback
  - D. All of the above

14. OneNote Online allows students to collaborate on projects:
- A. At school
  - B. At home
  - A. From any device with an internet connection
  - B. With school devices
15. You can insert videos in Office Forms questions
- A. True
  - B. False
16. Students can use Skype's chat feature when collaborating inside an office online document
- A. True
  - B. False
17. Word Online helps create professional documents with:
- A. Templates
  - B. Easy formatting with heading styles
  - C. A digital writing assistant known as Editor
  - D. All of the above
18. When students are collaborating within Office Online, a good rule of thumb is to assign roles so students know their Parts.
- A. True
  - B. False
19. The "Tell Me" feature in Office Online will:
- A. Read the text out loud
  - B. Provide audio files and sound effects
  - C. Search for tips to help you add content to your document
  - D. List a number of sources for research

20. True or False: OneNote Class Notebook users do not have the ability to record audio and add the recording to a page.
- A. True
  - B. False
21. The Dictate function found in the Learning Tools for OneNote helps students with which phase of the writing process?
- A. Ideation
  - B. Proofing
  - C. Revisions
  - D. Collaboration
22. Which of the following math tools are available on an interactive whiteboard? Choose all that apply.
- A. Ruler
  - B. Protractor
  - C. Calculator
  - D. Compass
  - E. All of the above
23. Which of the following software is used in conjunction with interactive whiteboards to deliver instruction in TUSD? Choose the best answer.
- A. Smart Notebook for Smartboards and ActivInspire for Promethean
  - B. iVisions
  - C. Snipit
  - D. SuccessMaker

24. When utilizing Skype, teachers are able to co-teach with teachers across the globe in real time

- A. True
- B. False

25. In Microsoft Teams, teachers have the ability to: Choose all that apply.

- A. Communicate with one student or an entire class
- B. Schedule Assignments
- C. Create assignments for small groups, individuals or a class
- D. None of the above

26. Within the Microsoft Educator Community, teachers can:

- A. Chat with teachers from anywhere in the world
- B. Find professional development opportunities on teaching with technology
- C. Administer formative assessments
- D. All of the above

27. Which of the following can teachers learn at their own pace through the Microsoft Educator Community?

(Choose all that apply.)

- A. How to empower students with an inclusive classroom
- B. Introduction to Microsoft Teams: The Digital Hub for Educators and Students
- C. PBIS
- D. All of the above

28. Which of the following types of files can be imported into a Sway?

Choose all that apply

- A. .pdf
- B. .xid
- C. .ppt
- D. All of the above

29. In Office 365, teachers can create a Team in which each student has their own OneNote

- A. True
- B. False

30. With Microsoft Teams, teachers can: (Choose all that apply)

- A. Create a Class OneNote notebook
- B. Assign periodic due dates for various parts of the writing assignment
- C. Share documents with students digitally
- D. Enter writing grades into their gradebook

31. The Dictate function found in the Learning Tools for OneNote helps students with which phase of the writing process?

- A. Ideation
- B. Proofing
- C. Revisions
- D. Collaboration

32. In the Ideation stage of the writing process, which tool helps a student who is writing informative/persuasive paper?

- A. Real Time Collaboration
- B. Minecraft
- C. Researcher
- D. Ink Editor in Word

33. How do storyboards help students?

- A. A storyboard gives students the outline of a story.
- B. A storyboard helps students create the visual as well as the narrative for their stories.
- C. A storyboard is a pictorial representation of the story you want the students to write.

D. None of the above

34. Real Time Collaboration allows students to:

- A. Work in a Word document at the same time, seeing exactly where their peers are working and what changes/additions they are making.
- B. Chat with their classmates about the document they are writing together.
- C. Record their collaboration so the teacher can see who contributed to the paper.
- D. All of the above

35. The tools recommended for the Review/Feedback stage of the writing process include: Choose all that apply

- A. Researcher
- B. Track Changes and Comments in Word
- C. Chat feature in Teams
- D. Inking in OneNote and Word
- E. Insert Audio in OneNote

36. Once a graph has been inserted on a page in OneNote, you are no longer able to edit that graph in the page view. To edit, you must adjust it in the math assistant, then insert a new graph onto the OneNote page.

- A. True
- B. False

37. Skype Lessons are set up as specific sessions a Guest Speaker may host- a Guest Speaker may host multiple Skype Lessons. Teachers can find out all essential details about the session before requesting a slot to make sure it is right for their students.

- A. True
- B. False

38. Which of the following statements are correct?

Choose ALL that apply.

A. Skype in the Classroom allows you to connect with all the experts in your city

B. Through Skype in the Classroom you can find classrooms to play Mystery Skype

C. Through Skype in the Classroom your class can participate in virtual field trips

D. Through Skype in the Classroom you can participate in global projects

39. In order to host a Skype Lesson or Skype Collaboration, you need to be a Guest Speaker:

A. True

B. False

# EXHIBIT B

**Exhibit B****SY 2018-19 Training Schedule for Teacher Technology Liaisons**

| <b>Month</b>     | <b>Topic</b>  |
|------------------|---|
| <b>August</b>    | Orientation/OneDrive  |
| <b>September</b> | Sway in Instruction   |
| <b>October</b>   | Microsoft Educator Community  |
| <b>November</b>  | Teams in the Classroom  |
| <b>January</b>   | Skype in the Classroom  |
| <b>February</b>  | Online Assessments  |
| <b>March</b>     | Teaching and Learning Summit  |
| <b>April 1</b>   | Gamification/Coding in Education                                      |
| <b>May</b>       | STEAM (Science Technology Engineering Art Math) Lessons and Resources |

# EXHIBIT C

**Exhibit C**

The following is a sampling of the instructional technology courses provided through the District's online Professional Learning Portal, True North Logic (TNL).

| <b>Course</b>                                   | <b>Course Description</b>  |
|---|--|
| Using Instructional Technology in the Classroom | The course will focus on the use of Office 365, Windows 10, interactive white boards and document cameras in the classroom. This class will help participants create interactive and student-centered lessons, increase student engagement, and strengthen student retention of concepts.  |
| Promethean Interactive Playground               | This two-day seminar will get teachers into the land of interactive whiteboards. The goal is to get teachers to implement more interactive lessons/activities to motivate student learning. We will be focusing on actively using Active Inspire and introducing how to incorporate Class Flow. The goal also will include time set aside for teachers to create their own flipcharts. |
| Introduction to Office 365                      | Teachers will become familiar with Office 365, learn about One Drive, Sway, Forms, OneNote, and online resources and generate ideas for use in the classroom.  |
| Academy: Office 365 for Teachers:               | Upon successful completion of this course, teachers will be able to utilize learning tools in Office 365 to deliver instruction, navigate the Microsoft Educator Community to receive targeted online professional development, and utilize learning tools in Office 365 to deliver assessments and engage students.   |

|  |  |
|--|--|
| <p>iPad/TOTs<br/>Bootcamp</p>                                      | <p>The TOTs are the Samsung Android tablets in tubs that were distributed to all K-3 classrooms. Teachers participate in activities designed to demonstrate how the iPads/tablets can be utilized and incorporated to augment instruction. Participants collaborate and demonstrate how to integrate the devices into specific content areas they teach.</p> |
| <p>Kellond<br/>Elementary TTL<br/>Lead Sessions</p>                | <p>Kellond staff will have the ability to sign up for sessions each month with the TTL for a variety of technology supports. Kellond is an example of one school using the TNL platform for professional learning facilitated by the school's TTL.</p>   |
| <p>Independent<br/>Learning with<br/>Math Tools in<br/>OneNote</p> | <p>Participants will utilize OneNote to solve and graph equations and support personalized learning with Math through OneNote.</p>   |

# EXHIBIT D

**Exhibit D**

The District utilizes the Microsoft Educator Community (MEC) to provide targeted professional development to further enhance teacher technology professional development.

| <b>Course</b>   | <b>Course Description</b>  |
|---|--|
| Virtual Field Trips with Skype in the Classroom   | Learn how to organize a Virtual Field Trip and find examples of how to use Skype in the Classroom Virtual Trips in your subject area and grade. Participants will learn how to prepare their lesson in order to get the most out of it and create a unique and powerful learning experience for students.  |
| Computational Thinking and its importance in education (Part of the STEM Level 1 Learning Path) | This course is designed for all educators from all subject areas who would like to know more about computational thinking and how it can be applied within cross-curricular educational settings   |
| Crafting a collaborative learning environment with Class Teams                                  | Whatever your class - math, science, language arts, social studies, art, computer science, etc. - you can create a Class Team and build a dynamic digital learning space for your students. You will immediately have a space where you can share resources, encourage collaboration, communicate with students, and manage assigning and grading a wide variety of assignments. |
| Building Blocks of Code 1   | This is a beginner's course in computational thinking and coding across the curriculum.  |

|   |  |
|---|--|
| <p>Digital Storytelling with Microsoft Sway</p>                                     | <p>From student reports to monthly newsletters, today's classrooms have many stories to tell. Digital storytelling with Microsoft Sway lets teachers and students focus on the content and not worry about the format. This course will show how Sway can be used to capture and share the digital stories that need to be told.</p> |
| <p>STEAM Integration with Minecraft</p>   | <p>Through this course, participants will see the various ways that Minecraft lends itself to embedding multiple STEAM elements across disciplines.</p>  |
| <p>Introduction to Microsoft Teams – the digital hub for educators and students</p> | <p>Microsoft Teams is a digital hub that brings conversations, content, and apps together in one place. Educators can create collaborative classrooms, connect in professional learning communities, and communicate with school staff all from a single experience in Office 365 for Education.</p>                                 |

# EXHIBIT E

**Exhibit E**

**Technology Integration Observation Tool**

Date \_\_\_\_\_ School \_\_\_\_\_ Grade \_\_\_\_\_ Subject \_\_\_\_\_

| <b>Groupings:</b>     | <b>Check All That Apply</b> | <b>Teacher Role</b>   | <b>Check All That Apply</b> |
|-----------------------|-----------------------------|-----------------------|-----------------------------|
| Individual            |                             | Lecturing             |                             |
| Pairs/Small groups    |                             | Interactive Direction |                             |
| Whole Class Lecturing |                             | Facilitate/Coaching   |                             |
|                       |                             | Modeling              |                             |
|                       |                             | Moderate Discussion   |                             |
|                       |                             | Other:                |                             |

**Please rate the effectiveness of Educational Technologies integrated during observation**

|  |         |         |       |
|--|---------|---------|-------|
| Effectiveness    0 = Not observed<br>1 = Not Effective<br>2 = Somewhat Effective<br>3 = Very Effective |         |         |       |
|  |         |         |       |
|  | Teacher | Student | NOTES |
| Computer   |         |         |       |
| Digital Camera   |         |         |       |
| Document Camera  |         |         |       |
| Interactive whiteboard   |         |         |       |
| Interactive Videoconf  |         |         |       |
| Tablets  |         |         |       |

|  |            |         |       |
|--|------------|---------|-------|
| Effectiveness    0 = Not observed<br>1 = Not Effective<br>2 = Somewhat Effective<br>3 = Very Effective |            |         |       |
|  |            |         |       |
|  | Teacher    | Student | NOTES |
| Text Editor  |            |         |       |
| Web Browser  |            |         |       |
| Office 365   | One Drive  |         |       |
|  | PowerPoint |         |       |
|  | Teams      |         |       |
|  | SharePoint |         |       |
|  | Sway       |         |       |
| Other Tech (Describe)  |            |         |       |