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A Component of the  
Washington State Assessment System

# Educational Technology

## Public Health

*Explore causes and effects related to staying well.*

# Grades K-2

*OSPI-Developed*  
**Assessment**

Office of Superintendent of Public Instruction  
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# Grades K - 2 Public Health Assessment for Educational Technology

## Overview

### Introduction

This document contains information which is essential to the administration of the OSPI-Developed assessment for educational technology. This assessment is an ideal way for students to demonstrate their proficiency with research and communication skills as they investigate public health patterns in their school. Developed by teachers in Washington State, the assessment is designed to measure learning of selected standards for educational technology.

### Description of the OSPI-Developed Assessment

This assessment models best practices of instruction, including the use of technology, lesson cycle, differentiation, and student-centered learning. In addition, teachers will be able to collect and use formative and summative evidence regarding student performance on public health and educational technology standards.

Students will complete the assessment by responding to a prompt that requires the use of educational technology. During the assessment, students will document their ability to organize information and analyze data, then produce a response to the original prompt. Teachers will score the final product using the Educational Technology Scoring Guide.

### Using the Assessment

The rubric for this educational technology assessment is structured distinctively in that it **combines a checklist and a performance scale**. The Sample Unit Plan and individual Session Plans describe the basic materials and time needed to complete the assessment. Teachers will need to develop their own scoring tools to evaluate student work for additional content area standards.

Teachers should allow any student working productively on the assessment to continue. Session Plans provide some accommodations that differentiate the instruction or assessment based on the needs of students. Teachers should enable specific accommodations for ELL students, such as access to a paraprofessional, during the assessment. Any students who have an Individualized Education Plan (IEP) should have access to all accommodations required by the students' IEP.

### For More Information

Please visit the OSPI Web site for additional resources for the educational technology assessments (<http://www.k12.wa.us/EdTech>).

## Grades K - 2 Public Health Assessment for Educational Technology

This integrated assessment for global issues and educational technology asks students to collect and organize information about public health. They will use this information to **create graphs and look for trends**. As students complete the task, they will communicate their solution in a digital format. Teachers can use this assessment to evaluate what students know and can do with educational technology.

The educational technology assessment is divided into two parts. The first four sessions of the suggested Unit Plan help students to build background knowledge. Teachers can use these sessions to collect and provide formative feedback to students. During the final session, students will create the product associated with the summative assessment for the educational technology standards.

### **Problem-Based Learning**

This assessment takes the form of Problem-Based Learning. In this type of unit, students are provided a **real-world problem which does not have one right answer**. They take on a decision-making role which requires them to **conduct research and think critically** about possible solutions. As the teacher, your role becomes more like a coach, guiding students to find answers to the questions they have about the problem presented in the task. You should present the problem to students as a real issue. **Students are disappointed when they are not allowed to adopt the decision-making role fully and have their ideas taken seriously.**

### **Educational Technology Standards in the Primary Classroom**

At the primary grade levels, some standards for educational technology include the words “with assistance” or “as a class.” This can be challenging for teachers to interpret when trying to measure individual student progress toward the standards. In this assessment, we recommend that **students complete as much of the work as possible**. When the development of class notes or a class graph takes place, allow every student an opportunity to contribute an idea (that you can type for them) or total and input a data point (that you will use to create the graph). **Use a class list or record-keeping tool to check off students as they collaborate during whole-class activities.**

This assessment offers an opportunity for teachers to develop their proficiency with the following National Educational Technology Standards for Teachers (NETS•T):

- **2a:** Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.
- **2d:** Provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching.
- **4a:** Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources.

For more information on the NETS for Teachers, please visit <http://www.iste.org/standards/nets-for-teachers.aspx>.

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This integrated assessment addresses the following standards:

Standards	
Educational Technology	
1.2.1	Communicate and collaborate to learn with others. <ul style="list-style-type: none"> <li>▪ Participate in online projects as a class.</li> <li>▪ Work with others using technology tools to convey ideas or illustrate simple concepts.</li> </ul>
1.3.2	Locate and organize information from a variety of sources and media. <ul style="list-style-type: none"> <li>▪ Gather information using teacher-selected digital resources.</li> <li>▪ Organize information using a table, digital template, or online tool with assistance.</li> </ul>
1.3.3	Analyze, synthesize, and ethically use information to develop a solution, make informed decisions, and report results. <ul style="list-style-type: none"> <li>▪ Analyze and evaluate results, discuss, and identify the solution(s).</li> <li>▪ Share learning and results through a multimedia product.</li> </ul>

### Options for Instruction

This assessment for educational technology integrates standards-based learning activities for science, health, math and English language arts. However, the modular design enables flexibility and adaptation. Teachers have these options as they plan for instruction:

- Use the learning and assessment activities for **all four subjects**.
- Focus on a **single subject** and target specific competencies for educational technology.
- Work with **any combination of subjects**, for example science and health, or English language arts and math.

Standards	
Science	Health
NGSS <b>Science and Engineering Practice 8:</b> Obtaining, Evaluating, and Communicating Information	2.3.1 Recognizes how to prevent or reduce the risk of contracting a communicable disease.
Math	English Language Arts
CCSS Math <b>Measurement and Data 4:</b> Represent and interpret data.	CCSS ELA <b>Writing 6 (K – 2):</b> With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. <b>Writing 7:</b> Participate in shared research and writing projects.

# Grades K - 2 Public Health Assessment for Educational Technology

## Student Task

Recently the nurse at another school received a note from a parent. The parent wrote to explain why her son was absent:

Dear Mrs. Garcia,

My son, Paul Iversen, is sick. He has a fever and a sore throat. Paul can't come to school today. He is sad about this, because he was hoping for a Perfect Attendance award this year. He also likes being in Mr. Hart's class.

It is also hard for me when Paul can't go to school. I have to miss work and might lose my job if I am gone too many days.

Paul was fine yesterday until the class went to the library. He told me that several new boxes of books were being opened. He noticed a strange smell coming from the boxes. He started to feel sick after the class left the library.

I think the new books made Paul sick. I also think that you should remove the books from the library so that everyone can stay healthy.

Sincerely,

Maria Iversen

The nurse needs your help. Do some research about what causes people to be sick. Then, use attendance records from Paul's class to create a graph and look for patterns. You will use your research and graph to write a letter or record a voicemail. Your message should explain why Paul is sick, how you know, and what can be done to keep him healthy at school.

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**Directions:** Each of the *attribute names* below represents part of an educational technology standard. These are followed by *descriptions* of student performance which meet the standard. If the student work provides evidence of meeting the standard, it earns the *points* shown in the final column. Total the points and then compare to the *Scoring Rubric* to determine the overall level of performance.

We use the term *digital* to refer to tools and information that do not exist in a physical form. Computer software, Web sites, online databases, pod/vodcasts and pages from an eReader are just a few examples.

### Attributes of Educational Technology Standards

GLE	Attribute Name	Description	Points
Score the attributes for GLEs 1.2.1 and 1.3.2 for artifacts related to the research process only.			
1.2.1	Communicates with Others	Communicates ideas from class activities and teacher-selected sources by contributing to digital class notes. <i>For example, Padlet (formerly WallWisher), Word, or a mind map</i>	1
	Collaborates to Learn	Takes turns in group discussion or activities.	1
1.3.2	Gather Information	Uses teacher-selected digital sources to identify information related directly to the student task.	1
	Organize Information	Develops individual notes from sources.	1
		Inputs data, with assistance, into a class graph using a digital tool.	1
Score the attributes for GLE 1.3.3 for the multimedia product only.			
1.3.3	Identify a Solution	States the problem (why Paul is sick) based on sources or notes.	1
		States a solution (how Paul can stay healthy at school) based on sources or notes.	1
	Analyzes Information	Describes how the solution will solve the problem based on sources or notes.	1
		Uses the graph to analyze the problem. <i>For example, "less people got sick because more people started to stay home."</i>	1
	Share Learning	Creates a multimedia product.	1
<b>TOTAL</b>			<b>10</b>



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**Scoring Rubric for Educational Technology**

<b>Performance Description</b>	<b>Points</b>
A <b>Level 3 response</b> exceeds the standards and reflects that a student can demonstrate knowledge and ability beyond the requirements for Educational Technology GLEs 1.2.1, 1.3.2, and 1.3.3.	9 - 10
A <b>Level 2 response</b> meets the standards and reflects that a student understands and is able to perform GLE 1.2.1 <i>Communicate and collaborate to learn with others</i> , GLE 1.3.2 <i>Locate and organize information from a variety of sources</i> , and GLE 1.3.3 <i>Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results</i> BY using technology to create a letter or voicemail which explains why Paul is sick and what he can do to keep healthy at school.	7 - 8
A <b>Level 1 response</b> reflects that a student is still working toward meeting GLEs 1.2.1, 1.3.2, and 1.3.3.	0 – 6

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**Teachers must use the student task and scoring guide as written.** However, teachers have leeway to adapt the amount of instruction, time considerations, and resources for individual classroom use.

There is no requirement to use this plan or the sessions that follow. However, teachers might find the structure useful. There are many ways to use the Sample Unit Plan, shown below. Its versatile design will adapt to multiple instructional strategies and classroom settings as teachers complete this integrated OSPI-Developed assessment.

During the first four sessions, teachers will model the assessment with the whole class and provide formative feedback on student work. Students will complete the summative tasks for scoring during Session Five.

Sample Unit Plan			
Session	Standard(s)	Time	Preparation and Materials
<u>1</u> Ask Questions	ET 1.2.1	30 minutes	<input type="checkbox"/> Glitter <input type="checkbox"/> Computer or document camera connected to LCD projector <input type="checkbox"/> <a href="#">Digital tool for taking notes</a>  <i>Optional</i> <input type="checkbox"/> Potato slices, boiled <input type="checkbox"/> Baggies <input type="checkbox"/> Labels <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Internet access, if using an online tool
<u>2</u> Gather Information	ET 1.2.1 ET 1.3.2	45 minutes	<input type="checkbox"/> Pre-selected Web sites for students to use <input type="checkbox"/> <a href="#">Digital tool for taking notes</a> <input type="checkbox"/> Computer connected to LCD projector  <i>Optional</i> <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Document camera <input type="checkbox"/> Computers or devices for student use
<u>3</u> Find Patterns	ET 1.3.2	45 minutes	<input type="checkbox"/> Unifix cubes, counters, or other manipulatives  <i>Optional:</i> <input type="checkbox"/> Document camera <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Digital camera <input type="checkbox"/> Trade books, such as <i>Lemonade for Sale</i> by Stuart J. Murphy and Tricia Tusa or <i>The Great Graph Contest</i> by Loreen Leedy
<u>4</u> Organize Data	ET 1.2.1 ET 1.3.2	45 minutes	<input type="checkbox"/> <a href="#">Digital tool for graphing</a> —graphing Web site or spreadsheet program (for example, Excel). <input type="checkbox"/> Printer <input type="checkbox"/> Graph from Session Three.
<u>5</u> Create a Product	ET 1.2.1 ET 1.3.2 ET 1.3.3	60 minutes	<input type="checkbox"/> Computers or devices for student use

## Grades K - 2 Public Health Assessment for Educational Technology

### Session One: Ask Questions

#### Background

In this session, students will begin to engage with Educational Technology Standard 1.2.1 as they “work with others using technology tools to convey ideas.” Teachers introduce students to the concept of germs and communicable disease as they participate in a simulation for disease transmission. Students prepare to gather information about germs and disease.

Teachers should consider introducing new vocabulary—germ and voicemail.

Prep	<input type="checkbox"/> Coordinate with teacher-librarian, technology specialist, or other staff to locate the digital/print resources, and technology tools you need to complete the unit. <input type="checkbox"/> Review federal policies that protect children in the online environment— <a href="#">CIPA</a> , <a href="#">COPPA</a> and <a href="#">FERPA</a> . Also, review district policies on Acceptable Use of technology and Digital Citizenship. Note provisions related to ethical and legal use, personal safety, cyberbullying, and the publication of student work, if you plan to post this content to a public Web site. If your district does not provide one, we have a sample <a href="#">Parental Permission Form</a> to publish student work on a Web site.
Materials	<input type="checkbox"/> Glitter <input type="checkbox"/> Computer or document camera connected to LCD projector  <i>Optional</i> <input type="checkbox"/> Potato slices, boiled <input type="checkbox"/> Baggies <input type="checkbox"/> Labels <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Internet access, if using an online tool

## Grades K - 2 Public Health Assessment for Educational Technology

Session One: Ask Questions	
Learning Plan (30 minutes)	
Engage	<ul style="list-style-type: none"> <li>▪ Before the lesson, put a small amount of glitter on your hands. You will use the glitter to model how germs pass from one person to another.</li> <li>▪ Ask students to shake hands with at least three other people in the room, including you.</li> </ul>
Explore	<ul style="list-style-type: none"> <li>▪ Have students look at their hands. Students should raise their hands if they see any glitter. Ask students: <i>Where did the glitter come from?</i></li> <li>▪ Tell students that the glitter reminds you of germs. Ask students if they have heard of germs and what they know about them. Also ask:               <ul style="list-style-type: none"> <li>▪ <i>How do germs travel to different places?</i></li> <li>▪ <i>Do we have germs on our hands right now?</i></li> <li>▪ <i>How could we get rid of them?</i></li> </ul> </li> <li>▪ Help students make the connection that, like glitter, germs are very tiny (much smaller than a piece of glitter) and they pass easily from person to person by touching or moving through the air. Some types of germs can make us sick.</li> </ul>
Explain	<ul style="list-style-type: none"> <li>▪ Show or provide a copy of the Student Task.</li> <li>▪ Ask students what they think has happened to Paul. Use the digital note-taker you chose to capture student observations and questions about the problem, as well as what they need to find out before they respond to the school nurse.</li> <li>▪ Tell students that during the next session, they will be doing some research about germs and illness.</li> </ul>
Extend	<p><i>Optional</i></p> <ul style="list-style-type: none"> <li>▪ Cut a potato into slices and boil for one minute. After the slices have cooled, have students rub their fingers on one slice. Then, students should wash their hands and rub their fingers on a different slice of potato. Each slice should be placed in its own labeled bag and set aside in a warm place for 3 – 5 days.</li> <li>▪ Have students make observations of the differences they see between the slices.</li> <li>▪ Use this investigation to discuss how washing hands can decrease the number of germs significantly and how this can improve health.</li> <li>▪ Note: For safety reasons, do not open the bags. Collect all bags and seal in a trash bag for disposal after the activity.</li> </ul>
Evaluate	<ul style="list-style-type: none"> <li>▪ Show or provide a copy of the <a href="#">Student Checklist</a>. Review the skills students will be expected to demonstrate throughout the assessment. Ask them to identify the skills and abilities they were developing during today’s lesson.</li> <li>▪ Do not score this session as part of the assessment— use for formative purposes only. Provide feedback to students on the knowledge and skills they developed through participation in class activities and the discussion about germs.</li> </ul>

## Grades K - 2 Public Health Assessment for Educational Technology

### Session Two: Gather Information

#### Background

In Session One, students learned about the assessment task and considered ways in which staying healthy impacts their lives. They also learned about the importance of minimizing illness at school.

In this session, students will continue to build their skills with Educational Technology GLE 1.2.1 as they collaborate to learn with others. They will also engage with Educational Technology Standard 1.3.2 as they “gather information using teacher-selected digital resources.”

Teachers should pre-select health information resources in native languages for ELL students.

Prep	<input type="checkbox"/> Coordinate with teacher-librarian, technology specialist, or other staff to locate digital and print resources, and technology tools. For example, selected search engines or Web sites, podcasts, collections and video clips. You can use the list we provide in the <a href="#">health resources</a> as a starting point.(Be sure that the Web site(s) you want to use will be accessible for students. If blocked, contact your district’s technology department or select other resources.)
Materials	<input type="checkbox"/> Pre-selected Web sites for students to use <input type="checkbox"/> <a href="#">Digital tool for taking notes</a> <input type="checkbox"/> Computer connected to LCD projector  <i>Optional</i> <input type="checkbox"/> Document camera <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Computers or devices for student use

# Grades K - 2 Public Health Assessment for Educational Technology

Session Two: Gather Information			
Learning Plan (45 minutes)			
Engage	<ul style="list-style-type: none"> <li>▪ Review the information from the previous session, including the Student Task, to set clear targets.</li> <li>▪ Use the list of questions students generated during Session One to identify the two or three most important answers students find that will help Paul. For example, students might need to learn more about prevention, how to get well if they get sick, and whether or not someone could become sick if they stand near an open box of new books.</li> <li>▪ Tell students that during today’s session, they will collect information to answer these questions.</li> </ul>		
Explore	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>If you work in a one-computer classroom...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ As a class, review another health resource. Have students write down one or two important points to share with the class.</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>If you have access to student computers...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ Individually or in pairs, have students review another health resource. Ask students to write down one or two important points to share with the class.</li> </ul> </td> </tr> </table>	<p><b>If you work in a one-computer classroom...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ As a class, review another health resource. Have students write down one or two important points to share with the class.</li> </ul>	<p><b>If you have access to student computers...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ Individually or in pairs, have students review another health resource. Ask students to write down one or two important points to share with the class.</li> </ul>
<p><b>If you work in a one-computer classroom...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ As a class, review another health resource. Have students write down one or two important points to share with the class.</li> </ul>	<p><b>If you have access to student computers...</b></p> <ul style="list-style-type: none"> <li>▪ Using one of the <a href="#">health resources</a> you have selected, model how to search for and record information that answers one of the questions the class identifies.</li> <li>▪ Individually or in pairs, have students review another health resource. Ask students to write down one or two important points to share with the class.</li> </ul>		
Explain	<ul style="list-style-type: none"> <li>▪ Review the information students collected as a class activity.</li> <li>▪ As each student shares, note who and what they contribute. Students will need the class notes later to develop their final product. You will use your record of this discussion to score GLE 1.2.1.</li> <li>▪ Be sure students recognize that some types of illness are communicable (catchable) and others are not. We can prevent many communicable diseases.</li> </ul>		
Extend	<ul style="list-style-type: none"> <li>▪ Read Shel Silverstein’s poem “Sick” (<a href="http://www.poets.org/viewmedia.php/prmMID/16480">http://www.poets.org/viewmedia.php/prmMID/16480</a>).</li> <li>▪ Have a class discussion on why students stay home from school. Ask students:             <ul style="list-style-type: none"> <li>▪ <i>How do you know when you are sick?</i></li> <li>▪ <i>Why might it be important for you to stay home if you don’t feel well?</i></li> </ul> </li> </ul>		
Evaluate	<ul style="list-style-type: none"> <li>▪ Review the <a href="#">Student Checklist</a>. Ask students to identify the skills and abilities they were developing during today’s lesson and where they need more practice.</li> <li>▪ Provide feedback to students on their skills identifying and sharing relevant information from the resources you selected.</li> </ul>		

# Grades K - 2 Public Health Assessment for Educational Technology

Session Three: Find Patterns	
Background	
<p>During Sessions One and Two, students conducted research about how and why Paul became sick. They will use this information to respond to the Student Task. During Session Three, students receive further information about the problem in the form of attendance data from Paul Iversen’s class. Students will continue to build their skills with Educational Technology GLE 1.3.2 as they organize information. The graph students create will help them begin to think about how illness affects attendance during the school year.</p>	
Prep	<input type="checkbox"/> Select a method to build a graph with students, for example manipulatives or Unifix cubes.
Materials	<input type="checkbox"/> Unifix cubes, counters, or other manipulatives <i>Optional:</i> <input type="checkbox"/> Document camera <input type="checkbox"/> Interactive whiteboard <input type="checkbox"/> Digital camera <input type="checkbox"/> Trade books, such as <i>Lemonade for Sale</i> by Stuart J. Murphy and Tricia Tusa or <i>The Great Graph Contest</i> by Loreen Leedy
Learning Plan (45 minutes)	
Engage	<ul style="list-style-type: none"> <li>▪ Review the purpose of the Student Task and restate the learning targets with students. Remind them of the work they have completed to this point—building background knowledge of germs to help solve a problem in Paul’s class.</li> <li>▪ Tell students that you have received important information from Paul’s school. Show or provide a copy of the attendance sheet to students. Help students read the table. Ask students:               <ul style="list-style-type: none"> <li>▪ <i>What patterns do you see?</i></li> <li>▪ <i>What could we do with this information to understand it better?</i></li> <li>▪ <i>How could we show this information in a different way?</i></li> </ul> </li> <li>▪ You might need to prompt or direct younger students to think about making a picture (graph) that uses the data.</li> </ul>
Explore	<ul style="list-style-type: none"> <li>▪ Review the first week of attendance data with the class. As you look at the data, count the total number of sick students in each column.</li> <li>▪ Use unifix cubes or other manipulatives and a document camera (or sticky notes on a board) to build a model of these five data points as students count them. Then, ask students to identify the pattern they see from day one to day five (the numbers increase). Based on what they know about how people get sick, ask students what they think is happening in Paul’s class.</li> </ul>
Extend	<ul style="list-style-type: none"> <li>▪ Repeat the process of using the manipulatives to build the first section of a graph using the attendance data. Discuss the pattern for week two (the numbers increase, then decrease). Then, build the next section of the graph using attendance data from week three (the numbers decrease). Allow students to work in pairs at their desks as they use manipulatives to build their own versions of the graph. Ask students:               <ul style="list-style-type: none"> <li>▪ <i>What is the main idea of the graph?</i> (For example, how absences changed over three weeks.)</li> <li>▪ <i>What pattern or trend can you see?</i> (For example, first there were only one or two absences, then four, and in the next week absences went back to one or two.)</li> </ul> </li> <li>▪ If you used the document camera, remember to take a picture of the graph for Session Four. You could also suggest that students use a digital camera to take a picture of their analog graphs.</li> <li>▪ Tell students they will share their graphs informally with the class (Session Four).</li> </ul> <p><i>Optional</i></p> <ul style="list-style-type: none"> <li>▪ Read a trade book, such as <i>Lemonade for Sale</i>, with students to practice graph analysis skills.</li> </ul>
Evaluate	<ul style="list-style-type: none"> <li>▪ Review the <a href="#">Student Checklist</a>. Ask students to identify the skills and abilities they were developing during today’s lesson or where they might need more practice.</li> <li>▪ Do not score this session as part of the assessment— use as formative evaluation only.</li> <li>▪ Provide feedback to students on their skill <i>using the graph to analyze the problem</i>.</li> </ul>

## Grades K - 2 Public Health Assessment for Educational Technology

### Session Four: Organize Data

#### Background

In Session Three, the class constructed an analog version of the attendance data from Paul's classroom. During Session Four, students will extend their work as they work with others to use a digital tool to organize information and illustrate simple concepts (GLEs 1.2.1 and 1.3.2).

This is the final formative session for the assessment. Students will apply the skills developed during the first four sessions to their final product.

Prep	<input type="checkbox"/> Review how to create a graph using an online tool or spreadsheet program. <input type="checkbox"/> Select one or two examples of graphs from Web sites or print materials to share and discuss with students.
Materials	<input type="checkbox"/> <a href="#">Digital tool for graphing</a> —graphing Web site or spreadsheet program (for example, Excel). <input type="checkbox"/> Printer <input type="checkbox"/> Graph from Session Three.
<b>Learning Plan (45 minutes)</b>	
Engage	<ul style="list-style-type: none"> <li>▪ Show students a graph you selected from the Web or a print source. Use the graph with students to identify patterns. Ask students:               <ul style="list-style-type: none"> <li>▪ <i>What can you summarize from the graph?</i></li> <li>▪ <i>What pattern(s) do you notice?</i></li> </ul> </li> <li>▪ Review the graph and information from the previous session. Tell students that during today's session, they will work together to make the graph on the computer.</li> </ul>
Explore	<ul style="list-style-type: none"> <li>▪ Develop a digital graph with the class.               <ul style="list-style-type: none"> <li>▪ Model how to enter data into a table.</li> <li>▪ Assign students a partner and a column of data from the attendance sheet.</li> <li>▪ Have students total the column, then enter the number into the table.</li> <li>▪ After students input their information into the table, model how to convert the data into a graph. Math standards for primary students target bar graphs, but you can create a line graph to see a trend in the data more easily.</li> <li>▪ Show students how to save or print the graph.</li> </ul> </li> </ul>
Extend	<ul style="list-style-type: none"> <li>▪ Provide student pairs with time to review the graph generated by the class during Session Three. They should prepare to share their ideas with the class:               <ul style="list-style-type: none"> <li>▪ <i>How does the pattern of attendance help us to understand why Paul got sick?</i></li> <li>▪ <i>What do they think this means about Paul's absence?</i></li> <li>▪ <i>How can we use this information to explain the problem to Paul's mother?</i></li> </ul> </li> <li>▪ On the graph, have students identify when Paul was absent. What do they notice about this date? Before and after this date?</li> </ul>
Evaluate	<ul style="list-style-type: none"> <li>▪ Debrief with the class about using the digital tool.               <ul style="list-style-type: none"> <li>▪ <i>What did they like or want to change about the digital tool?</i></li> <li>▪ <i>What helpful suggestions can they give to others who are having problems using the tool?</i></li> </ul> </li> <li>▪ Review the <a href="#">Student Checklist</a>. Ask students to identify the skills and abilities they were developing during today's lesson or where they might need more practice.</li> <li>▪ Do not score this session as part of the assessment— use as formative evaluation only. Provide feedback to students on their ability to use the graph to explain why Paul is sick.</li> </ul>



# Grades K - 2 Public Health Assessment for Educational Technology

## Session Five: Create a Product

### Background

Session Five is the summative component for this assessment. Until now, students have had practice with “working with others using technology tools, gathering and organizing information about student illness, and analyzing and sharing results” (Educational Technology Standards 1.2.1, 1.3.2, and 1.3.3). During this final session, each student will synthesize information, and write a letter or record a voicemail to the school nurse that explains what they think happened to Paul.

If you choose to have students create a digital product, we recommend you review the vocabulary related to the specific digital tools.

**Group products are not permissible** for the summative assessment. However, teacher assistance to complete the task is acceptable.

Prep	<input type="checkbox"/> Select the digital format(s) for the student letter. Choose a format familiar to students. Examples could include an audio recording or podcast, document, PowerPoint or presentation, or blog post. You could also choose to template a format for students to use. See the <a href="#">publishing resources</a> for more information and ideas.
Materials	<input type="checkbox"/> Computers or devices for student use
<b>Learning Plan (60 minutes)</b>	
Engage	<ul style="list-style-type: none"> <li>▪ Review the student task for this assessment with your class.</li> <li>▪ Review the research students collected during Session Two, such as what causes sickness, the list of reasons for staying home, and how to stay healthy.</li> <li>▪ Review the data students analyzed during Sessions Three and Four.</li> </ul>
Explore	<ul style="list-style-type: none"> <li>▪ Guide students through the process of organizing their information for the final product. You can use the <a href="#">organizer</a> we provide.               <ul style="list-style-type: none"> <li>▪ <i>What do they think happened to Paul?</i></li> <li>▪ <i>What evidence supports their conclusion?</i></li> <li>▪ <i>What should the school nurse tell Mrs. Iversen?</i></li> </ul> </li> <li>▪ Review the format(s) students can use to create their digital product. For example, show which buttons to push to record, stop, and send an audio message. Or, show students how to embed a graph into a document.</li> </ul>
Extend	<ul style="list-style-type: none"> <li>▪ Students create their response to the original prompt for this assessment. Provide assistance as needed.</li> <li>▪ Be sure that students know where to save their work.</li> </ul> <p><i>Teaching Tips and Accommodations</i></p> <ul style="list-style-type: none"> <li>▪ If you have only one or two student computers in class, assign computer time to each student so they can develop their product.</li> <li>▪ If you plan to have students do an audio recording, borrow a headset with microphone or use another USB microphone to help amplify and capture student voices.</li> </ul>
Evaluate	<ul style="list-style-type: none"> <li>▪ Have students submit their work to a designated location.</li> <li>▪ Score students’ work using the Scoring Guide for Educational Technology.</li> </ul>
Extend	<p><i>Optional</i></p> <ul style="list-style-type: none"> <li>▪ Consider contacting the local health department for data on various illnesses, such as the flu.</li> <li>▪ Have a parent volunteer play the role of Mrs. Iversen and visit your classroom. Students can share what they learned during a discussion.</li> </ul>

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Name \_\_\_\_\_

### Student Task

Recently the nurse at another school received a note from a parent. The parent wrote to explain why her son, Paul, was absent. She explained that he was fine until he went to the school library and noticed a strange smell coming from boxes full of new books.

Do some research about what causes people to be sick. Then, look for patterns of sickness at Paul's school. Write a letter or record a voicemail that explains why Paul is sick, how you know this and what can be done to keep him healthy at school.

Description	Checklist	How do I know?
I share my ideas with the whole class.	<input type="checkbox"/>	
I take my turn to share my ideas.	<input type="checkbox"/>	
I find important information.	<input type="checkbox"/>	
I write my notes about the problem.	<input type="checkbox"/>	
I help to make a graph on the computer.	<input type="checkbox"/>	
I know why Paul is sick.	<input type="checkbox"/>	
I know what Paul should do to stay healthy.	<input type="checkbox"/>	
I know why my solution will keep Paul healthy.	<input type="checkbox"/>	
I use the graph to find a pattern.	<input type="checkbox"/>	
I make a letter or voicemail on the computer.	<input type="checkbox"/>	

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Hello, Ms. Garcia,

This is \_\_\_\_\_

from \_\_\_\_\_ Elementary School. I am calling

because Paul was sick.

I think Paul was sick because \_\_\_\_\_

---

---

I know this because \_\_\_\_\_

---

---

Paul can stay healthy at school by \_\_\_\_\_

---

I think this will keep Paul healthy because \_\_\_\_\_

---

Thank you.

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Here is Mr. Hart's attendance sheet. The squares with an "S" indicate when a student was sick and missed class.

Attendance Roster for Mr. Hart's Class															
Student	M	Tu	W	Th	F	M	Tu	W	Th	F	M	Tu	W	Th	F
Lisa A.									S						
Juan B.	S	S						S							
Sam C.						S	S								
Nadya D.				S											
Erin E.										S					
Michael F.			S												
Jorge G.								S							
Isaac H.															
Paul I.								S							
Kelly L.															
Karl L.					S	S					S				
Katrina M.									S						
Brittany P.			S	S											
Julio R.							S								
Max S.										S	S	S			
Darlene T.															
Ursula V.							S	S							
Rosa W.					S	S									
Javier Y.															
Kevin Z.					S								S	S	S

# Posting Photos and Student Work Parental Permission Form

## Parental Consent Form

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In Washington State's K-12 schools, email, blogs, podcasts, collaborative document sites, such as GoogleDocs, and multimedia items that publish to school and class Web sites, have become an integral part of education, administration and communication with the community.

As educators, we are committed to practices that promote student safety and privacy of information—online and offline. We approach communication software and hardware, which allow students to connect with peers, experts and educators as important tools for student learning.

Given that web-based communication requires an online presence—not always anonymous—we ask parents and students to consider carefully the **acceptable level of access and participation** your student will have using digital tools at school.

These three statements summarize \_\_\_\_\_ school's policy related to the privacy of student content.

1. Publishing photos of students or samples of student work promotes an opportunity to share and learn with others. It is acceptable to publish images of students and student learning products on school Web pages without information that would identify the student. **Parents/guardians must provide written consent to publish their child's photo or school work on any school-related Web site before the item is published.**
2. All students and teachers must abide by the copyright laws of the United States.
3. All student files, created and stored on the school district's network, are the property of the school district. As district property, all files and multimedia items are open to the review and evaluation of district officials.

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## Permission

As a parent or legal guardian of, \_\_\_\_\_, I have read and understand the policy statement related to the posting of images of students and student work online.

I consent to the permission(s) I have initialed below:

\_\_\_\_\_ I grant permission for the publication of my student's photo or work without information that would identify the student.

\_\_\_\_\_ I grant permission for my student to use online tools provided by the teacher.

\_\_\_\_\_ I grant permission for my student to use a personal email account for assignments while at school.

Student Name (Print): \_\_\_\_\_

Student Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Parent (Guardian) Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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Educational Technology Resources		
Digital Tools		
	Description	Location
Take Notes	Teachers can set up a <b>Padlet</b> (formerly Wallwisher) page where students can post notes about what they are learning.	<a href="http://padlet.com">http://padlet.com</a>
	PrimaryWall is a web-based sticky note tool designed for schools that allows students and teachers to work together in real time	<a href="http://primarywall.com/">http://primarywall.com/</a>
	Popplet is a free digital organizer that makes it possible to mind map, embed audio and video files and share your organizers with others.	<a href="http://popplet.com/">http://popplet.com/</a>
Graphing Tools	With <b>Create a Graph</b> , students input their data and labels, then select a graph that can be downloaded. No login is required.	<a href="http://nces.ed.gov/nceskids/createagraph/">http://nces.ed.gov/nceskids/createagraph/</a>
	The <b>Online Chart Tool</b> allows students to generate and download a variety of graphs once they input their data and labels. No login is required	<a href="http://www.onlinecharttool.com/">http://www.onlinecharttool.com/</a>
Publish	<b>Audacity</b> ® is free, open source software for recording and editing sound. Take advantage of Audacity's multilingual audio editor.	<a href="http://audacity.sourceforge.net/">http://audacity.sourceforge.net/</a>  <a href="http://wiki.audacityteam.org/wiki/Changing_the_current_language">http://wiki.audacityteam.org/wiki/Changing_the_current_language</a>
	You can use <b>Glogster</b> to develop an interactive poster.	<a href="http://edu.glogster.com/">http://edu.glogster.com/</a>
	<b>Animoto</b> has educational accounts. Students can upload pictures, add text and music, and generate a presentation.	<a href="http://animoto.com/">http://animoto.com/</a>
	With a <b>Voicethread</b> account, students are able to share documents, images, and videos with others.	<a href="http://voicethread.com/">http://voicethread.com/</a>
	Students can create posts for a classroom <b>blog</b> . Here are examples of education-friendly sites, but there are others.	<a href="http://edublogs.org/">http://edublogs.org/</a>  <a href="http://kidblog.org/home.php">http://kidblog.org/home.php</a>
	<b>Wikis</b> are Web sites that are easy to create and edit. Many services offer free wikis for educators.	<a href="http://www.wikispaces.com/">http://www.wikispaces.com/</a>  <a href="http://pbworks.com/">http://pbworks.com/</a>
	Students can record an audio version of their letter. If you have a <b>Google Voice</b> account, students can call from your classroom phone and Google will transcribe the "message" for you.	<a href="http://www.google.com/voice">www.google.com/voice</a>

## Grades K - 2 Public Health Assessment for Educational Technology

Health Resources	
Description	Location
The <b>Immune Platoon</b> links to various fact sheets, including the flu.	<a href="http://www.bam.gov/sub_diseases/diseases_immuneplatoon_noflash_diseasedatabase.html">http://www.bam.gov/sub_diseases/diseases_immuneplatoon_noflash_diseasedatabase.html</a>
The <b>Buzz on Scuzz</b> provides information for students on how germs can cause illness and tips for prevention.	<a href="http://www.bam.gov/sub_yourbody/yourbody_buzzonscuzz.html">http://www.bam.gov/sub_yourbody/yourbody_buzzonscuzz.html</a>
<b>Wash Your Hands</b> from the Centers of Disease Control provides information on proper hand washing, as well as a link to the how-to video, Put Your Hands Together.	<a href="http://www.cdc.gov/Features/HandWashing/">http://www.cdc.gov/Features/HandWashing/</a>
Listen to a brief discussion of the <b>life span of a germ</b> provided by the American Academy of the Advancement of Science.	<a href="http://audio.scienceupdate.com/040127_sciup_rad.mp3">http://audio.scienceupdate.com/040127_sciup_rad.mp3</a>
An online <b>tutorial</b> is available for the Create a Graph tool. Downloadable as a PDF, too.	<a href="http://nces.ed.gov/nceskids/help/user_guide/graph/index.asp">http://nces.ed.gov/nceskids/help/user_guide/graph/index.asp</a>
<b>What are germs?</b> has audio and print information about disease in English and Spanish.	<a href="http://kidshealth.org/kid/talk/qa/germs.html">http://kidshealth.org/kid/talk/qa/germs.html</a>
Videos	
Description	Location
CDC Web site on hand-washing	<a href="http://www.cdc.gov/cdctv/handstogether/">http://www.cdc.gov/cdctv/handstogether/</a>
Create a Graph tutorial	<a href="http://www.youtube.com/watch?v=YfgUwEGgHEA">http://www.youtube.com/watch?v=YfgUwEGgHEA</a>
How to create an Excel (2007) chart	<a href="http://office.microsoft.com/en-us/excel-help/charts-i-how-to-create-a-chart-in-excel-2007-RZ010175754.aspx">http://office.microsoft.com/en-us/excel-help/charts-i-how-to-create-a-chart-in-excel-2007-RZ010175754.aspx</a>
Different ways to plot data in worksheet in Excel 2003	<a href="http://office.microsoft.com/en-us/excel-help/demo-different-ways-to-plot-worksheet-data-in-a-chart-HA001161827.aspx">http://office.microsoft.com/en-us/excel-help/demo-different-ways-to-plot-worksheet-data-in-a-chart-HA001161827.aspx</a>
Lesson Plans	
Description	Location
Illness and Prevention	<a href="http://www.dshs.state.tx.us/kids/lessonplans/1st-ip.shtm">http://www.dshs.state.tx.us/kids/lessonplans/1st-ip.shtm</a>
Hand-washing	<a href="http://www.scusd.edu/SupportServices/Health%20Services/Pages/HandWashingCampaign.aspx">http://www.scusd.edu/SupportServices/Health%20Services/Pages/HandWashingCampaign.aspx</a>
How to keep from getting infected with germs at school (PDF). If the link doesn't open up from MSWord, copy the URL into your browser and hit Enter.	<a href="http://www.sfcdep.org/document.html?id=325">www.sfcdep.org/document.html?id=325</a>
Policy Guidance	
Description	Location
Children's Internet Protection Act (CIPA)	<a href="http://www.e-ratecentral.com/CIPA/default.asp">http://www.e-ratecentral.com/CIPA/default.asp</a>
Children's Online Privacy Protection Act (COPPA)	<a href="http://www.coppa.org/comply.htm">http://www.coppa.org/comply.htm</a>
Family Educational Rights and Privacy Act (FERPA)	<a href="http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html">http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html</a>