

## Technology Integration Workshop 2016

**Unit Title: Inquiring, Organizing, and Explaining**

**Grade Level: 3**

**Subject Area: *Literature and Science***

**Duration/Length/Number of class periods: 5 class periods**

**Description:**

Students will complete an experiment

**Established Goals (National, State, Local):**

Reading:

3.1.1.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Writing:

3.6.8.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Science:

3.1.1.2.4 Construct reasonable explanations based on evidence collected from observations or experiments.

**What Enduring Understandings are desired?**

After reading a text, we should be able to determine specific details about the content as well as ask questions to further understanding.

When gathering information, taking notes and organizing the information into categories will help me process/ present that information.

When constructing an explanation I use evidence to support my claim.

**What Essential Questions will be considered?**

How can we demonstrate our understanding of a text?

How can we use evidence that we collect to develop a theory or a hypothesis?

How can we organize the information that we gather?

**Students will know / be able to:**

Verbally summarize a text in their own words.

Develop and write a hypothesis based on evidence collected.

Description	<i>Units must include at least one of each formative, summative, introductory activity and learning activity. Check the appropriate box; one per row.</i>	<u>Formative</u>	<u>Summative</u>	Introductory Activity	Learning Activity	Student Technology Used	Teacher Technology Used	<u>ISTE Standards</u>
<p><b>Lesson 1 - Launch:</b></p> <p>KWL(Know, Want to Know, Learned): "What do you know about fingerprints? What do you want to know about finger prints? Turn and talk to your partner, you will have 3-4 minutes to discuss and then come up to the Smartboard and write your answers."</p> <p>Each student will create fingerprints of all five fingers on one hand with name and date on the paper. <a href="http://www-tc.pbskids.org/zoom/printables/activities/pdfs/fingerprints.pdf">http://www-tc.pbskids.org/zoom/printables/activities/pdfs/fingerprints.pdf</a></p> <p>Video of how to do finger prints: <a href="https://www.youtube.com/watch?v=MZiUpaiuN8o">https://www.youtube.com/watch?v=MZiUpaiuN8o</a></p> <p>Each fingerprint has one of three different types of lines: arc, whorl, loop. Students will identify which one of these is most dominant in their fingerprint.</p> <p>Closing: Exit ticket, have each student write down or verbally respond to "What did you learn?"</p>		X		X	X	X	X	
<p><b>Lesson 2 - History:</b></p> <p>Review: "What did we do yesterday?" Have students fill out the TodaysMeet when they come in: <a href="https://todaysmeet.com/Rm127">https://todaysmeet.com/Rm127</a> (Each student can refresh to enter their own name).</p> <p>"Today, we will read a little history of forensic science."</p> <p>Students will be split into groups of independent readers and students who will have it read to them. Students will use the included graphic organizer to take notes:</p>		X			X	X	X	

Name \_\_\_\_\_ Date \_\_\_\_\_

Note-Taking Graphic Organizer

Words That Come to Mind:

Four Facts I Learned:


Questions I Still Have:      Opinions I Have Formed:

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Reading for students: <http://kinooze.com/our-fingerprints/>

After reading, students will be brought back to large group. "Did you find anything interesting? Any questions?"

"Has anyone ever seen a TV show or movie where a computer was used to find a fingerprint match?"

Watch fingerprints debunked video: <https://www.youtube.com/watch?v=vM1QgwaKv4s>

Students will fill out an exit ticket: "What do you now know about fingerprinting?"

### Lesson 3 - Who Dunit?:

Pre-lesson prep create video: Villain states that they have stolen the class laptop and one of their minions from the classroom has helped them.

Teacher: "Alright, you are all suspects. The laptop was in a locked room. We found four fingerprints on the door handle. We will need to collect everyone's fingerprints (left thumb) to compare to the prints found on the door handle. We will use our recent knowledge of the

			X			

<p>fingerprinting process and analysis to find out who is working with the villain.”</p> <p>Four stations will be set up with approximately four fingerprints per evidence pages. That way students won’t have to crowd around one piece of paper. Students can work in partners or as individuals.</p> <p>By the end of the day students should have narrowed down to one matching finger-print.</p> <p>Closing: “How did your investigations go? Was it difficult? Easy? Would you like to work as a fingerprint analyst?”</p>							
<p><b>Lesson 4 - Accusation</b></p> <p>Pre-lesson prep: Create video announcing who the accomplice was.</p> <p>Review: “What did we work on yesterday?” Have students share out. “Today we will be writing our formal accusation paragraphs.”</p> <p>Students will write a paragraph stating who the culprit is and why using key vocabulary terms (such as arch, whorl, loop, fingerprint) and evidence from yesterday’s investigation.</p> <p>Students may use the following graphic organizer to help with writing:</p>							

## Paragraph

Topic Sentence
↓
Detail 1
↓
Detail 2
↓
Detail 3
↓
Closing Sentence



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Students will work on their formal accusation and turn in the final draft by the end of the class.

“Let’s see if any of you investigators found the culprit!”

Play villain video: “My accomplice was \_\_\_\_\_. All along! Muahahah!”

## Materials, tools and resources

**Day 1:** Paper, scotch tape, pencils, magnifying glass, Smartboard

**Unit Plan Author (name, school and optional email address or hyperlink to teacher’s web page)**

**Cassie Westerhaus - Nellie Stone Johnson**

**Additional credit given to Phil ONeill**