



EXPEDITIONARY
LEARNING

Grade 5: Module 2B: Unit 2: Lesson 6

Using Quotes to Explain: Why Philo Farnsworth Invented Television



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can explain what a text says using quotes from the text. (RI.5.1)

I can determine the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4)

- a. I can use context as a clue to the meaning of a word or phrase.
- c. I can consult reference materials, both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Supporting Learning Targets

- I can explain *why* Philo Farnsworth wanted to invent television.
- I can determine the meaning of unknown words and phrases using a variety of strategies.

Ongoing Assessment

- Fluency self-assessment (from homework)
- Independent Reading Choice Board response (from homework)
- Gist statement (in journal)
- The Invention of Television note-catcher
- Vocabulary defined (in journal)



Agenda	Teaching Notes
<ol style="list-style-type: none"> 1. Opening <ol style="list-style-type: none"> A. Homework Review and Engaging the Reader (5 minutes) 2. Work Time <ol style="list-style-type: none"> A. Determining the Gist: <i>The Boy Who Invented TV</i> Pages 18–28 (15 minutes) B. Second Read: Explaining Why Philo Farnsworth Wanted to Invent Television (25 minutes) C. Vocabulary to Deepen Understanding (10 minutes) 3. Closing and Assessment <ol style="list-style-type: none"> A. Debrief and Review Learning Targets (5 minutes) 4. Homework <ol style="list-style-type: none"> A. Reread pages 18–28 of <i>The Boy Who Invented TV</i> aloud to self-assess fluency. B. Written response (see details below). C. Independent reading. 	<ul style="list-style-type: none"> • In this lesson, students read the final 10 pages of <i>The Boy Who Invented TV: The Story of Philo Farnsworth</i> to learn about and explain why Philo Farnsworth wanted to invent television. Students focus on specific passages and sentences from <i>The Boy Who Invented TV</i> to respond in The Invention of Television note-catcher to help them understand and explain why the invention came about. • This close reading provides a chance to model and clarify for students the strategies they can use for making meaning of a complex text by working together, step-by-step, to complete the note-catcher. This work also scaffolds students' ability to write a well-crafted essay during the end of unit assessment. • During the Opening of this lesson, students refer to the Fluency Self-Assessment they completed for homework in order to consider and review criteria for establishing individual fluency goals. Students should be familiar with the self-assessment criteria, from Unit 1 of this Module. (For more details, see the Unit 1 Overview and Foundational Reading and Language Skills Resource Package.) • Note that although the key vocabulary students work with during Work Time C may seem more basic than words they have worked with during previous lessons and modules, in fact each of these terms has many possible meanings and is categorized as more than one part of speech, based on context. Therefore, each word was chosen because it is a high-leverage academic term that students will see in a variety of contexts as they become ever more independent readers. Having students work with these high-leverage words to determine meaning both through the use of resources and context clues builds their ability to use multiple strategies to independently determine the accurate meaning of multiple-meaning words. • In this lesson you will display the results of an Internet search for the definition of the word 'fine.' If you do not have the technology available to display an active computer screen, consider printing off the results of a search to display on a document camera or to provide students with their own copies. • In advance: <ul style="list-style-type: none"> – Review the Popcorn Read protocol and Fist to Five in Checking for Understanding Techniques (see Appendix). – Review the context clues discussion and reference materials in Work Time C to prepare to listen for key concepts students may share and to offer them support as they analyze the word <i>fine</i> and determine the meaning of other key terms.



Agenda	Teaching Notes (continued)
	<ul style="list-style-type: none"> – If technology is available, provide one computer per group for students to conduct an Internet search to define key terms. Otherwise, provide dictionaries. – Consider displaying key vocabulary from the text to save time during Work Time C. • Post: Learning targets.

Lesson Vocabulary	Materials
<p>explain, invented, synthesize, determine, variety, strategies; captivated, phonograph (4), fine, even (20), share, lead (22)</p>	<ul style="list-style-type: none"> • Journals (begun in Unit 1, Lesson 1; one per student) • <i>The Boy Who Invented TV: The Story of Philo Farnsworth</i> (book; one per student) • The Invention of Television note-catcher (one per student) • The Invention of Television note-catcher (answers, for teacher reference) • Tape, glue, or staplers (enough for each student to have access) • Vocabulary Strategies anchor chart (from Unit 1, Lesson 2) • The results of an internet search (one to display) • Computer with Internet access or dictionaries (one per group) • Fluency self-assessment (from Unit 1; see stand alone Foundational Reading and Language Skills Resource Package; one per student) • Independent Reading Choice Board (from Lesson 4)



Opening	Meeting Students' Needs
<p>A. Homework Review and Engaging the Reader (5 minutes)</p> <ul style="list-style-type: none"> • Give students specific positive feedback related to their completion of the mid-unit assessment and their ability to consider and respond to questions. Commend their ability to determine the meaning of unfamiliar words, identify the main ideas of a text, make inferences, and summarize. • Ask students to take out the fluency self-assessment goal they completed for homework and then join their regular small groups. • Review directions for the Popcorn Read protocol with students. Ask them to independently review the fluency goal at the bottom of their fluency self-assessment to prepare for the Popcorn Read. Explain to students that during the Popcorn Read, they should share out key words and phrases from their goal that emphasize which criteria from the self-assessment they are focused on to improve their reading fluency. • Begin. If necessary, start the popcorn with an example such as, “Read like I’m talking to a friend.” • Conclude the popcorn once all students have had an opportunity to share out at least one idea. Then pose these questions for groups to quickly discuss: <ul style="list-style-type: none"> * “What patterns did you notice?” * “What words and phrases were repeated by several students?” • Once group members have had a brief moment to confer, invite a few students to share the group’s ideas aloud. Answers will vary, but listen for students to make specific references to the self-assessment criteria, such as: <ul style="list-style-type: none"> – “I noticed many people mentioned read like I’m talking to a friend.” – “Not too fast, not too slow.” – “Questions sound like questions.” – “Accuracy.” • Focus students’ attention whole group, then read the guiding question aloud: <ul style="list-style-type: none"> * “How do new or improved technologies meet societal needs?” * Say: “During the first half of this unit, we read about what life was like before television was invented. We also read about Philo Farnsworth’s interest in science and his ability to develop useful devices, as well as the experience he had in the potato field that led to his understanding of what he described as ‘capturing light in a bottle.’ As we read the final 10 pages of <i>The Boy Who Invented TV</i> today, we are going to focus on understanding why Philo wanted to invent television.” 	<ul style="list-style-type: none"> • To encourage the balance of airtime in this Popcorn Read, consider circling students up and giving them each two beans or paper clips. Tell them they should contribute to the Popcorn Read at least once and no more than twice. Students lay their “token” in front of them when they share.



Work Time	Meeting Students' Needs
<p>A. Determining the Gist: <i>The Boy Who Invented TV</i> Pages 18–28 (15 minutes)</p> <ul style="list-style-type: none">• Ask students to take out their journals and the book <i>The Boy Who Invented TV: The Story of Philo Farnsworth</i>.• Ask students to share out, all at once, what they typically do during the first read of new text. Listen for them to say:<ul style="list-style-type: none">– “Read to determine the gist.”• Then, direct students to turn to page 18. Ask them to complete the following in groups:<ul style="list-style-type: none">– Take turns reading each page aloud, starting on page 18 and ending at the bottom of page 28.– As you read aloud, use this as an opportunity to practice reaching the goal you set for homework to improve your ability to read with fluency.– After reading pages 18–28 aloud with group members, discuss the gist of these final pages.• After 10 minutes, cold call a member from each group to share out the gist. Listen for ideas such as:<ul style="list-style-type: none">– “Philo Farnsworth invented TV at the age of 22.”– “Philo’s wife, Pem, helped him build the first television.”– “It took Philo time to invent the TV.”– “Philo needed investors to give him money to invent television.”– “Philo was a real inventor, like his heroes.”• Ask students to record their gist statements on the same page in their journals where they recorded the gist during previous lessons in this unit.	<ul style="list-style-type: none">• Consider giving students the option of practicing fluency by reading aloud in their small groups or alone into a phonics phone. This will help reduce anxiety for those who are reluctant to read aloud in front of a group.• When reading for gist, consider modifying the amount of text assigned to struggling readers. Choose the selection carefully so students can still contribute meaningfully to the group discussion.• Remind students that it’s okay to find the gist in “baby steps.”• Some students may need support reading a modified version of the text and finding the gist in “baby steps” to be ready to contribute to the conversation with their group.



Work Time (continued)	Meeting Students' Needs
<p>B. Second Read: Explaining Why Philo Farnsworth Wanted to Invent Television (25 minutes)</p> <ul style="list-style-type: none"> • Read the first learning target aloud: <ul style="list-style-type: none"> * “I can explain <i>why</i> Philo Farnsworth wanted to invent television.” • Underline key terms from the target students are familiar with from previous lessons: <i>explain</i> and <i>invented</i>. Then ask students to think about and briefly discuss in groups how they could restate the target in their own words. • After 1 minute, invite a few students to share their ideas whole group. Then, say something like: <ul style="list-style-type: none"> * “In the following guided close reading, as we revisit passages from previous close reads and consider new information from the last 10 pages of <i>The Boy Who Invented TV</i>, think about the connection between our learning target and the guiding question: ‘How do new or improved technologies meet societal needs?’” • Distribute The Invention of Television note-catcher. Read the focus question at the top of the note-catcher aloud, then direct students’ attention to the first row of the note-catcher. • Ask them to turn to page 4 of <i>The Boy Who Invented TV</i>. • Ask a student to read the directions then each of the three questions in the first row, aloud. Provide clarification as needed, then ask students to independently read Paragraphs 1 and 2 and work with group members to answer each question. • After 3 or 4 minutes, invite someone from each group to share their responses whole group. See The Invention of Television note-catcher (answers, for teacher reference) for likely responses as you guide students through the note-catcher. Ask: <ul style="list-style-type: none"> * “What strategy did you use to determine the meaning of the word <i>captivated</i>?” * “Aside from using context clues, how could you look at parts of the word <i>phonograph</i> to help you determine its meaning?” • Listen for students to share ideas such as these: <ul style="list-style-type: none"> – “I used context clues such as ‘Philo got goose bumps’ and ‘It was almost impossible to believe’ to figure out what <i>captivated</i> means.” – “I know that <i>phono-</i> means ‘sound,’ so that helps me understand that a <i>phonograph</i> is something that makes sound. If people at that time listened to something that made sound while they danced, it was probably a record player.” • Next, focus students’ attention on the second row of the note-catcher. Once again, ask them to read the prompt and the questions aloud. Provide clarification as necessary and ask students to begin. 	<ul style="list-style-type: none"> • To continue to balance airtime in group discussions and encourage dominant voices to make room for reluctant voices, consider having students keep a group tally of the number of times they contribute to the discussion of questions posed during the guided close read. Encourage them not to share again until everyone in their group has shared the same number of times. <p>When reading aloud to students, consider displaying the text under the document camera. Although students have the text in front of them, struggling readers have a hard time tracking you if they lose their spot for any reason. Being able to track you onscreen as you read and point reduces anxiety and promotes fluency.</p>



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• After 4 or 5 minutes, cold call students to share their thinking whole group. Ask:<ul style="list-style-type: none">* “Why would it ‘seem like magic’ to bring people together?”* “Why do you think Philo thought it was heroic to bring people together in these ways?”• Student responses will vary, but listen for suggestions like:<ul style="list-style-type: none">– “It would seem like magic because people lived so far away from each other that it was hard to understand how they were able to hear each other’s voices.”– “Music coming from a machine was new, and so it probably seemed magical.”– “I think Philo thought these inventors were heroic because they came up with new and clever devices that allowed people to talk to loved ones from far away or spend time together being entertained by music for the first time without needing to have a live musician.”• Focus attention on the third row of the note-catcher. Cold call students to read the text and question aloud. Clarify as needed, then ask students to begin.• After 2 minutes, cold call students to share out their thinking. Ask:<ul style="list-style-type: none">* “Why do you think Philo believed television would be a better way to bring people together than radio?”• Listen for ideas such as:<ul style="list-style-type: none">– “I think he believed that television would be better because people could not only listen to the same program, they could also see it.”– “If people could see as well as hear what was happening, they could talk about the same thing, share ideas about what they heard and saw.”• Direct students’ attention to the fourth row of the note-catcher. Again, cold call students to read the text and questions aloud. Point out that the second question is an “inference question.” Remind students of the inferences they made in Lessons 3 and 4, then say something like:<ul style="list-style-type: none">* “Remember that our initial inferences can be made using our background knowledge and then refined based on additional information. As you respond to the second question, make an inference based on what you know about Philo so far. You will have an opportunity to refine this response after you gather a little more information.”• Ask students to work with group members to answer the two questions in the fourth row.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> • After 3 or 4 minutes, cold call several students to share their thinking whole group. Ask: <ul style="list-style-type: none"> * “How did the sentence structure, specifically the use of a dash in this sentence, help you determine the answer to the first question?” * “What background knowledge did you use to make an inference for the second question?” • Listen for students to share ideas such as: <ul style="list-style-type: none"> – “The dash broke apart the sentence and helped me see the connection between ideas.” – “I know Philo thought machines that brought people together were magical, and a machine that would allow people to share the same stories is one way to bring them together.” • Ask a couple of students to read aloud the text and question in the fifth row of the note-catcher. Clarify as needed, then ask students to work with their group members to determine and write a response to the question. • After 2 minutes, cold call a few students to share their thinking whole group. Ask: <ul style="list-style-type: none"> * “What do you think the word <i>ignorant</i> means?” * “How could being less ignorant of one another lead to world peace?” • Responses will vary, but listen for students to say <i>ignorant</i> means “a lack of knowledge; unaware.” • Then ask students to consider and discuss with group members: <ul style="list-style-type: none"> * “Based on the information from the fifth row of your note-catcher, how could you add to or revise your response to the inference question, ‘Why might Philo think it was important for people to ‘share the same stories?’” • Give students 1 or 2 minutes to discuss in groups, then invite a few to share their thinking aloud. Answers will vary, but all should be supported by the text. • Cold call students to read the text and questions from the bottom row of the note-catcher. Answer clarifying questions as needed, then ask students to work with group members to respond to each question. • Give students 3 or 4 minutes to answer the last three questions, then invite students from each group to share out their responses. Ask groups to discuss: <ul style="list-style-type: none"> * “In what ways did Philo believe he met people’s needs with his invention of television?” 	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• After 1 minute, invite a few students to share out their thinking with the class. Answers will vary, but ideas should include bringing people together, sharing the same stories, learning new things, and fostering peace.• Focus students' attention on the final portion of the note-catcher, Synthesize! and the writing prompt: "Explain <i>why</i> Philo Farnsworth wanted to invent television." Invite a few students to share out their understanding of what <i>synthesize</i> means. Listen for or lead students to this definition:<ul style="list-style-type: none">– "<i>Synthesize</i> means to fuse together, blend, combine."• Then ask students to complete the following:<ul style="list-style-type: none">– With group members, read the prompt aloud and restate it in your own words.– Refer to your responses to the questions on your note-catcher to help you formulate a response to the prompt.– Discuss your thinking with group members.– Write a three- to five-sentence paragraph to answer the prompt. Include key words from the focus question at the top of your note-catcher.• Respond to clarifying questions as necessary, then ask students to begin. Circulate to offer guidance.• After 4 or 5 minutes, cold call a few students to share their paragraphs whole group. Refer to The Invention of Television note-catcher (answers, for teacher reference) to see a sample paragraph. Congratulate students on their ability to determine the meaning of complex terms from the text, to make and refine their inferences, and to synthesize key ideas to explain why Philo Farnsworth invented television.• Ask students to tape, glue, or staple their note-catchers onto the next blank page in their journals.• Tell students that next, they are going to zoom in on some additional key terms from <i>The Boy Who Invented TV</i> to deepen their understanding of why Philo invented television.	



Work Time (continued)	Meeting Students' Needs
<p>C. Vocabulary to Deepen Understanding (10 minutes)</p> <ul style="list-style-type: none"> • Read the second learning target aloud: <ul style="list-style-type: none"> * “I can determine the meaning of unknown words and phrases using a variety of strategies.” • Draw students’ attention to terms from the target they are already familiar with from previous lessons: <i>determine</i>, <i>variety</i>, and <i>strategies</i>. Ask students to discuss the meaning of these terms in their groups, then think about how they could restate the target in their own words. • After 1 or 2 minutes, cold call a few students to paraphrase the learning target. • Cold call students from each group to share out strategies they have used to determine the meaning of unfamiliar terms during previous lessons. Listen for them to mention roots and affixes, context clues, and reference materials. Refer to the Vocabulary Strategies anchor chart to affirm student responses and add any new strategies mentioned. • Remind students that during previous lessons, they used reference materials, including dictionaries and online references, to help them determine the specific meaning of key and complex terms. Ask groups to discuss: <ul style="list-style-type: none"> * “Why would we choose to use reference materials to determine the meaning of a word?” • After 1 or 2 minutes, invite a few students to share their thinking whole class. Listen for suggestions such as: <ul style="list-style-type: none"> – “We would want to use a reference material if the word has multiple meanings.” – “We would use a reference material if we could not determine the meaning of the word from context clues, familiar prefixes, or common root words.” – “If we can figure out what part of speech a word is, like a noun or verb, then a reference material can help us narrow down possible meanings because resources like the dictionary show the definition of words as they are used in each part of speech.” • List these key words from <i>The Boy Who Invented TV</i> where all students can see them: <i>fine</i>, <i>even</i> (page 20), <i>share</i>, <i>lead</i> (page 22). • Explain that although these words are probably familiar to students, they are rather complex terms because each has multiple meanings and can be used in many different ways. Therefore, these words are “high-leverage,” which means they are words students will encounter frequently in a variety of contexts. Working to determine the meaning of each high-leverage term further supports their ability to become strong independent readers. 	<ul style="list-style-type: none"> • To support visual learners, display a poster of the term “high-leverage vocabulary” and a definition. • To support students who have a difficult time tracking the discussion onscreen, invite them to help facilitate the discussion by navigating around the web page to demonstrate elements of the definition of <i>fine</i> as you talk about them.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Next, say something like:<ul style="list-style-type: none">* “Let’s take a moment to consult an Internet resource.”• Display the results of an internet search for ‘fine definition,’ then ask groups to discuss:<ul style="list-style-type: none">* “What do you notice about the meaning of the word <i>fine</i>?”• Cold call several students to share out. Listen for:<ul style="list-style-type: none">– “I notice it has a lot of different meanings.”– “I notice that <i>fine</i> can mean high-quality, good, thin, a fee you pay, an informal way of saying you are well.”– “I notice that <i>fine</i> can be used as an adjective, noun, and adverb.”– “I notice there are two different definitions under the adjective form.”– “There are examples of <i>fine</i> used in different sentences.”• Depending on your internet search resource, point out the gray arrow at the bottom of the reference box. Explain or demonstrate (if the necessary technology is available) that when this arrow is clicked, the definition box becomes larger to show a lot more information about the word:<ul style="list-style-type: none">– More definitions and examples in context– The word origins, the language(s) the word was derived from– The option to translate the word into many other languages, such as Spanish, French, German, Chinese, Russian, etc.– A graph that shows the use of the word over time• Tell students that this additional information can be helpful in trying to determine not only the meaning of a word, but also to build knowledge about root words they will encounter in other texts. This is also a valuable tool for ELLs, as it allows them to have the word translated into their first language as a way of accessing the word’s meaning.• Say something like:<ul style="list-style-type: none">* “Remember, sometimes words that seem simple can actually have many meanings, and determining what those words mean can be just as difficult as defining a seemingly more complex term. Using reference materials and context clues together can help you determine the correct meaning of a word with more than one definition. Let’s look at the way <i>fine</i> is used in <i>The Boy Who Invented TV</i>.”	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Ask students to open their books to page 20. Instruct them to listen and follow along silently as you read the last paragraph aloud, starting with “Wasn’t it funny ...” and ending with “... would be even better.”• Ask groups to discuss:<ul style="list-style-type: none">* “What do you think the word <i>fine</i> means in the context of this paragraph?”• After 1 or 2 minutes, cold call several students to share their thoughts whole group. Encourage them to refer to specific details from the text to explain how they made their decision. Listen for:<ul style="list-style-type: none">– “I think <i>fine</i> means ‘good,’ because Philo describes how much he and Pem like to ‘watch’ the radio and how the radio is a fine way to bring people together, and television would be ‘even better’ than that.”• Recognize students for their ability to use multiple strategies to determine the meaning of <i>fine</i>. Encourage them to continue selecting and using appropriate vocabulary strategies as they complete their vocabulary task today. Distribute computers with Internet access or dictionaries for students to use.• Ask them to continue using a variety of strategies to determine the meaning of the remaining key terms and complete the four-column chart in their journal glossary for each word (if computers and Internet access are available, allow them to conduct an Internet search to help determine the meaning of each word.• After 7 or 8 minutes, cold call students to share out the meaning of each word. Encourage them to explain the vocabulary strategies they used to determine the meaning of each term. Listen for them to say that <i>even</i> is used to make a comparison (radio is good, but television is better); <i>lead</i> means “result in”; and <i>share</i> means “communicate, tell.”• If students are unable to define key terms, model how to locate and review possible definitions, then use context clues or other strategies to determine meaning.• Say something like:<ul style="list-style-type: none">* “Now that you have a deeper understanding about key vocabulary from the text, you are invited to go back to your note-catchers to revise your explanations from Work Time B about why Philo Farnsworth invented television.”• As time allows, invite students to share out and explain the revisions they made based on new understandings about key terms.	



Closing and Assessment	Meeting Students' Needs
<p>A. Debrief and Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none"> • Bring students together whole group. Say: <ul style="list-style-type: none"> * “Think about what you have learned about Philo Farnsworth and his invention of television from the book <i>The Boy Who Invented TV</i>. Then consider: What did Philo think was the most important reason for inventing television?” • Give students 1 or 2 minutes to think about their responses and refer back to their texts and notes as needed. Then ask them to turn to a nearby partner to share their thinking. • After 1 minute, invite a few students to share their thinking with the class. Answers will vary, but listen for students to support their ideas with direct references to the text and their notes. • Read both of the learning targets aloud and ask students to use Fist to Five to demonstrate their mastery toward each target. Note students who show three fingers or fewer, as they may need more support. • Distribute one index card to each student, as an admit ticket for the next lesson. 	<ul style="list-style-type: none"> • Offer a sentence starter to give all students access to the debrief question (“Philo thought the most important reason for inventing the television was ...”).
Homework	Meeting Students' Needs
<ul style="list-style-type: none"> • Reread pages 18–28 of <i>The Boy Who Invented TV</i> aloud (in front of the mirror or to someone at home) to self-assess fluency, using your Fluency Self-Assessment from Lesson 5. • Written response: After reading all of <i>The Boy Who Invented TV</i>, consider and write a response to the question: How much do you think television changed the lives of people living in the 1920s? • Read independently for at least 15 or 20 minutes and complete one Independent Reading Choice Board response. 	<ul style="list-style-type: none"> • Consider providing an audio version of pages 18–28 to support struggling readers or promote fluency.



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Supporting Materials



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The Invention of Television Note-catcher

Name:

Date:

Focus question: *Why* did Philo Farnsworth want to invent television?

Reread Paragraphs 1 and 2 on page 4 silently, then use details from the text to answer the questions on the right.

What two new machines “captivated” young Philo?

What do you think *captivated* means?

What is a phonograph? What words in the text make you think so?



The Invention of Television Note-catcher

Reread Paragraphs 3 and 4 on page 4 out loud with a partner. Together, use details from the text to answer the questions on the right.

Why did these machines “seem like magic” to Philo?

How might a telephone and a phonograph bring people together?

Who were Philo’s heroes?

Think carefully about what you have learned about Philo on this page. Why would Philo consider these men to be his heroes?



The Invention of Television Note-catcher

<p>“Radio was such a fine way to bring folks together. And television, he sensed, would be even better” (p. 20).</p>	<p>What did Philo believe television could do better than radio?</p>
<p>“That was the best thing about television, he said—it would let families and whole communities share the same stories” (p. 22).</p>	<p>What did Philo think the best thing about television was? How do you know?</p> <p>Why might Philo think it was important for people to “share the same stories”?</p>



The Invention of Television Note-catcher

<p>“By making people less ignorant of one another, he went on, it would teach and inspire. Maybe even lead to world peace” (p. 22).</p>	<p>According to Philo, how might the invention of television lead to world peace? Explain your reasoning using specific details from the story.</p>
<p>Reread page 4 silently, then use what you have read to better understand this quote:</p> <p>“He was a real inventor, like his heroes—someone who connected people, a shaper of the world to come” (p. 28).</p>	<p>Who, specifically, did Philo think he was like? Who were his heroes?</p> <p>How did Philo define a “real inventor”?</p> <p>Think about your responses to <i>all</i> of the questions above. Why did Philo think of himself as a “real inventor” after he invented television?</p>



The Invention of Television Note-catcher
(Answers, for Teacher Reference)

Focus question: Why did Philo Farnsworth want to invent television?

<p>Reread Paragraphs 1 and 2 on page 4 silently, then use details from the text to answer the questions on the right.</p>	<p>What two new machines “captivated” young Philo? (hand-cranked) telephone and phonograph</p> <p>What do you think <i>captivated</i> means? interested, fascinated</p> <p>What is a phonograph? What words in the text make you think so? I think a phonograph is a record player because it says “music swirling out of a machine.”</p>
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The Invention of Television Note-catcher
(Answers, for Teacher Reference)

Reread Paragraphs 3 and 4 on page 4 out loud with a partner. Together, use details from the text to answer the questions on the right.

Why did these machines “seem like magic” to Philo?

They were “clever” and “brought people together in whole new ways.”

How might a telephone and a phonograph bring people together?

A telephone allowed people who lived far away from each other to talk; phonographs were played at dances, where people spent time together.

Who were Philo’s heroes?

Alexander Graham Bell and Thomas Edison

Think carefully about what you have learned about Philo on this page. Why would Philo consider these men to be his heroes?

Because they invented things that brought people together



The Invention of Television Note-catcher
(Answers, for Teacher Reference)

<p>“Radio was such a fine way to bring folks together. And television, he sensed, would be even better” (p. 20).</p>	<p>What did Philo believe television could do better than radio?</p> <p>He believed television would bring people together better than radio could.</p>
<p>“That was the best thing about television, he said—it would let families and whole communities share the same stories” (p. 22).</p>	<p>What did Philo think the best thing about television was? How do you know?</p> <p>Philo believed the best thing about television was that it would let families and whole communities share the same stories. I know this because after the words “he said,” there is a dash and then more details about what he said.</p> <p>Why might Philo think it was important for people to “share the same stories”?</p> <p>It might help bring them together.</p>
<p>“By making people less ignorant of one another, he went on, it would teach and inspire. Maybe even lead to world peace” (p. 22).</p>	<p>According to Philo, how might the invention of television lead to world peace? Explain your reasoning using specific details from the story.</p> <p>He believed that if television made people less ignorant of one another, it could be used to teach and inspire them.</p>



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“He was a real inventor, like his heroes—someone who connected people, a shaper of the world to come” (p. 28).

Who, specifically, did Philo think he was like? Who were his heroes?

He felt like one of his heroes, Alexander Graham Bell and Thomas Edison.

How did Philo define a “real inventor”?

Philo thought a real inventor was someone who connected people and shaped the world to come.

Think about your responses to the questions above. Why did Philo think of himself as a “real inventor” after he invented television?

He thought he was a real inventor because he believed his invention of television would bring people together, connect them, maybe lead to world peace.



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Synthesize!

Explain *why* Philo Farnsworth wanted to invent television. Remember to use key words from the focus question in your response.

Philo Farnsworth wanted to invent television because he thought it would bring people together like the invention of the telephone, the phonograph, and the radio. He believed television would allow families and communities to share the same stories, making people less ignorant of one another so they would be able to learn and become inspired by television. He thought TV could possibly lead to world peace. Philo wanted to be “real inventor,” a person who connected people and shaped the world to come, like his heroes Alexander Graham Bell and Thomas Edison.