



EXPEDITIONARY
LEARNING

Grade 5: Module 2B: Unit 3: Lesson 7

Summarizing Notes: Planning a Graphic Novelette, *Part II: The Invention of Television*



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

I can integrate information from several texts on the same topic in order to write about the topic knowledgeably. (RI.5.9)

I can write informative texts to examine a topic and convey ideas and information clearly. (W.5.2)

b. I can develop the topic with facts, definitions, details, quotations, or other related information.

c. I can link ideas within and across categories of information using words, phrases, and clauses.

I can summarize information in notes and finished work. (W.5.8)

Supporting Learning Targets

- I can explain Philo Farnsworth's background by summarizing my notes on a storyboard.
- I can explain how Philo Farnsworth developed television by summarizing my notes on a storyboard.
- I can connect the ideas on my three storyboards by using linking words and phrases.

Ongoing Assessment

- Independent Reading Choice Board response (from homework)
- Homework Task Card: Unit 3, Lesson 6 (from homework)
- Storyboard, Section 2 Chart: Background on the Inventor
- Storyboard, Section 3 Chart: Information about the Process and Solution



Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Homework Review and Engaging the Reader (5 minutes)Work Time<ol style="list-style-type: none">Storyboard, Section 2: Explaining Philo Farnsworth's Background (20 minutes)Storyboard, Section 3: Explaining How Philo Farnsworth Developed a Solution (20 minutes)Revising to Add Linking Words (10 minutes)Closing and Assessment<ol style="list-style-type: none">Debrief and Review Learning Targets (5 minutes)Homework<ol style="list-style-type: none">Homework task card. Brainstorming Visual ElementsIndependent Reading	<ul style="list-style-type: none">The focus of this lesson is on clearly summarizing relevant details. Students build on their learning from Lesson 6 by working in triads to complete the summary paragraphs for two additional storyboard sections. Then they revise the text in all three storyboards to add linking words. Students will add visual elements to the storyboards in Lesson 8.This lesson requires students to follow a set of fairly complex directions while working on their storyboards in Work Times A and B. Although directions remain posted during Work Time and students have the support of their triad group members during this process, some may need additional support or clarification of directions.In advance:<ul style="list-style-type: none">Review Milling to Music in Checking for Understanding Techniques (see Appendix) to be prepared to facilitate student discussion in the Opening.Create Storyboard, Section 2 charts and Storyboard Section 3 charts for each triad (see supporting materials).Record and be prepared to display the multistep directions for Work Times A and B.Post: Learning targets.



Lesson Vocabulary	Materials
background, summarizing, storyboard, distinct, developed, television, connect, linking words and phrases	<ul style="list-style-type: none">• Note-catcher packets (from Lesson 6; one per student)• Storyboard, Section 2 Chart: The Television (one per triad)• Pink highlighters (one per student)• Writing Summary Paragraphs: Section 2 task card (one per triad)• Loose-leaf paper (two pieces per triad, one each for Work Times A and B)• Storyboard, Section 2 Chart: The Television (answers, for teacher reference)• Storyboard, Section 3 Chart: The Television (one per triad)• Blue highlighters (one per student)• Writing Summary Paragraphs: Section 3 task card (one per triad)• Storyboard, Section 3 Chart: The Television (answers, for teacher reference)• Linking Words anchor chart (begun in Unit 2, Lesson 11)• Homework Task Card: Unit 3, Lesson 7: Brainstorming Visual Elements (one per student)



Opening	Meeting Students' Needs
<p>A. Homework Review and Engaging the Reader (5 minutes)</p> <ul style="list-style-type: none">• Ask students to take out their Homework Task Card: Unit 3, Lesson 6.• Review Milling to Music and clarify directions as needed. Then, ask students to “mill.”• When the music stops, have them quickly locate a partner and share their responses to the question:<ul style="list-style-type: none">* “How could visual elements be added to the storyboard you created during the previous lesson, to support readers’ comprehension of key information?”• After 1 minute, cold call a few students to share what they learned from their partner.• Have students continue to mill until the music stops and then quickly find a partner and discuss their responses to the final question on their homework task card:<ul style="list-style-type: none">* “What might you include on a storyboard to help you organize your ideas before writing a graphic novelette?”• After 1 minute, cold call several students to share their thinking. Listen for examples such as speech bubbles, thought bubbles, a summary statement, close-up images, information boxes, etc.• Remind students that in today’s lesson, they will continue to work in their triads to design storyboards about how Philo Farnsworth’s television met the needs of society.	<ul style="list-style-type: none">• Consider providing sentence starters to support all students in accessing the Milling to Music prompts. (“The visual elements I used on my storyboard support readers’ comprehension by ...” and “To help me organize my ideas before writing my graphic novelette, I might include....”)



Work Time	Meeting Students' Needs
<p>A. Storyboard, Section 2: Explaining Philo Farnsworth's Background (20 minutes)</p> <ul style="list-style-type: none"> • Ask students to collect their note-catcher packets and meet in their triads. • Explain that in the first part of today's lesson, they will work in triads to begin Section 2 of their storyboards. • Direct their attention to the posted learning targets and read the first target aloud: <ul style="list-style-type: none"> * "I can explain Philo Farnsworth's background by summarizing my notes on a storyboard." • Draw students' attention to the terms <i>background</i>, <i>summarizing</i>, and <i>storyboard</i>, discussed in previous lessons. Clarify terms if needed. Ask one or two students to restate the target in their own words. • Encourage students to consider the learning target as they discuss these questions in their triads: <ul style="list-style-type: none"> * "What information will need to be communicated in Section 2 of your storyboard?" * "Why is this information important to telling the story of how Philo Farnsworth's invention of television met the needs of society?" • After 1 minute, invite a few students to share their thinking whole class. Listen for: <ul style="list-style-type: none"> – "Our storyboard will need to communicate relevant information about Philo Farnsworth's background." – "It's important because if people know about Philo Farnsworth's background, they will understand what inspired him to invent the television." – "Understanding Philo Farnsworth's background helps you realize that he understood the needs of his community." • Distribute one Storyboard, Section 2 Chart: The Television and three pink highlighters to each triad. • Direct students to highlight in pink the section title, "Who was Philo Farnsworth?" • Distribute the Writing Summary Paragraphs: Section 2 task cards and a piece of loose-leaf paper to each triad. • Explain that the directions on the task card are similar to those from Lesson 6 but include some important differences. • Read the directions aloud. Pause after the second step to invite students to share out strategies for identifying the most important details. Listen for them to identify that referring back to the title and highlighting details that are repeated often helps when looking for the most important information. 	<ul style="list-style-type: none"> • Consider displaying student-restated learning targets to support all students, especially ELLs. • Offer sentence starters to support all students in accessing the prompts: "Our storyboard will need to include _____" and "It's important because _____." • To support visual learners and students who struggle to locate information quickly in text, when asking students to highlight, model on a teacher version under the document camera. • When triads share their work, encourage them to place it under the document camera to support visual learners.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Continue reading aloud, but pause after the fourth step. Clarify the meaning of the term <i>distinct</i>. Highlight the difference between writing one summary paragraph, as in Section 1, and splitting details into two paragraphs.• Consider inviting students to share out strategies for using key vocabulary to help express ideas clearly.• Ask students to begin working in their triads. Circulate to provide support. Consider asking probing questions such as:<ul style="list-style-type: none">* “How could you group the details you highlighted into two distinct paragraphs?”* “If the reader is likely to read the left side first, which information do you think belongs in the paragraph on the left and which information should be on the right?”• After 10 to 12 minutes, refocus students whole class.• Cold call a few students from different triads to share their group’s work. Encourage them to explain how they organized the information to clearly communicate two aspects of Philo Farnsworth’s background.• Student responses will vary, but refer to Storyboard, Section 2 Chart: The Television (answers, for teacher reference) for examples of possible student paragraphs.• After a few groups have shared, give triads 2 or 3 minutes to revise their paragraphs and record them in the caption boxes on their Storyboard, Section 2 Chart. Encourage groups to have a new student act as the recorder.	



Work Time (continued)	Meeting Students' Needs
<p>B. Storyboard, Section 3: Explaining How Philo Farnsworth Developed a Solution (20 minutes)</p> <ul style="list-style-type: none"> Read the second learning target aloud or invite a student to read it aloud: <ul style="list-style-type: none"> “I can explain how Philo Farnsworth developed television by summarizing my notes on a storyboard.” Point out the familiar terms <i>developed</i>, <i>television</i>, <i>summarizing</i>, and <i>storyboard</i>. Clarify them if needed, and invite a few students to use their understanding of the key terms to restate the learning target in their own words. Encourage triads to consider the learning target as they discuss these questions: <ul style="list-style-type: none"> “What information will need to be communicated in your third storyboard section?” “Why is this information important to telling the story of how Philo Farnsworth’s television met the needs of society?” After 1 minute, invite a few students to share their thinking whole class. Listen for responses such as: <ul style="list-style-type: none"> “Our storyboard will need to explain relevant information about how Philo Farnsworth developed his idea for the television.” “It’s important for people to understand the way Philo Farnsworth invented the television because it explains why he was successful, even though other scientists had been trying to make a working television for a long time.” Distribute the following to each triad: <ul style="list-style-type: none"> Storyboard, Section 3 Chart: The Television three blue highlighters Writing Summary Paragraphs: Section 3 task card a piece of loose-leaf paper to each triad. Ask students to highlight in blue the section title, “Philo Farnsworth Invents the Television,” on their chart. Explain that students will locate, and add to their storyboards, information relating to the section title. Review and clarify directions on the task card, as needed. Consider asking students to point out the similarities and differences between this set of directions and those used in Work Time A, helping them to recognize that the directions are similar but require the use of a different color highlighter to identify new content required for the storyboard. Give triads 10 to 12 minutes to work. Circulate to support as needed. 	<ul style="list-style-type: none"> Consider displaying a strong example of this target restated to support all students, especially ELLs. Offer sentence starters to support all students in accessing the prompts: “The third section of our storyboard will need to include_____” and “It’s important because_____.” To support visual learners, as triads share their examples of Section 3 of their storyboards, encourage them to display their work under the document camera as they discuss the decisions they made and the information they decided to include.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> • Refocus students whole class. Cold call several students to share their triad's paragraphs with the class. Encourage them to explain how they decided to organize the information to help readers understand how Philo Farnsworth developed a solution. Refer to the Storyboard: Section 3 Chart: The Television (answers, for teacher reference) for possible responses. • Ask triads to revise their paragraphs and record them in the caption boxes on the Storyboard, Section 3 Chart. Encourage students to continue rotating recorders. 	
<p>C. Revising to Add Linking Words (10 minutes)</p> <ul style="list-style-type: none"> • Direct students' attention to the posted learning targets and read the third one aloud: <ul style="list-style-type: none"> * "I can connect the ideas on my three storyboards by using linking words and phrases." • Invite a few students to consider the familiar terms <i>connect</i>, <i>storyboards</i>, and <i>linking words and phrases</i> as they restate the target in their own words. • Refer to the Linking Words anchor chart and ask students to recall the four types of linking words they discussed in previous lessons. • Ask them to consider and discuss: <ul style="list-style-type: none"> * "How can the addition of linking words improve the quality of your writing?" • After 1 minute, cold call several students to share their responses whole class. Listen for suggestions such as: <ul style="list-style-type: none"> – "Linking words make your sentences flow together instead of sounding like a list of unrelated details." – "Using linking words can help the reader understand how sentences are related to each other." – "If you use linking words, your writing won't sound as repetitive." • Conduct a quick review of the Linking Words anchor chart. Consider using the following process for review to help students begin thinking about the use of linking words on their storyboards: • Direct students to focus first on the Addition linking words as they consider: "When would you use an Addition linking word to improve the writing on your storyboards?" • Invite a few students to share their thinking. Listen for students to suggest ideas such as: <ul style="list-style-type: none"> – "Addition linking words would be helpful to combine two similar details in one paragraph." – Cold call a few students to share an example of an Addition linking word. 	<ul style="list-style-type: none"> • Consider displaying a strong example of this target restated to support all students, especially ELLs. • Offer a sentence starter to support all students in accessing the prompt: "Linking words improve the quality of my writing because_____."



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">– Ask students to focus on the Contrast section of the Linking Words anchor chart as they consider when this type of linking word would be most useful in their storyboards.– Invite a few students to share their ideas whole class. Listen for responses such as:<ul style="list-style-type: none">– “Contrast linking words could be helpful if you have two details that are opposites of one another, like ‘Many scientists had been working to make a television using spinning disks, but Philo Farnsworth thought electricity would be a more effective way to make a television.’”• Cold call a few students to share an example of a Contrast linking word.• Tell students to consider the Cause section of the Linking Words anchor chart:<ul style="list-style-type: none">* “When might you use Cause linking words in your storyboards?”• Invite a few students to share their thinking whole class. Listen for them to say that Cause linking words might be useful for pointing out how one event led to another.• Ask students to refer to the final category on the Linking Words anchor chart as they consider:<ul style="list-style-type: none">* “How could Time linking words be used to improve the writing on your storyboards?”• Invite a few students to share their thinking whole class. Listen for ideas such as:<ul style="list-style-type: none">– “Time linking words might be really good for making transitions from one storyboard to the next so that they all flow together.”– “Time linking words could help you connect the different paragraphs on your storyboards.”• Refer back to the learning target and explain that students should work in their triads to revise the informational summaries in all three storyboards, adding at least one linking word to each paragraph of text to improve the flow and readability.• Give students approximately 7 minutes to revise their work. Circulate to support them as needed, pointing out sections of text that might benefit from the inclusion of linking words and encouraging them to determine which linking words would best connect their ideas.• After 6 or 7 minutes, refocus students whole class. Cold call a few students to share sentences they revised with the addition of linking words. Encourage them to explain why they think the revision improves the flow or readability of the text. Their responses will vary.• Have students display all three of their storyboards together in one area of the classroom.	



Closing and Assessment	Meeting Students' Needs
<p>A. Debrief and Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Ask students to quickly find and sit with a partner who is not in their triad.• Invite them to read each of the learning targets aloud together:<ul style="list-style-type: none">* “I can explain Philo Farnsworth’s background by summarizing my notes on a storyboard.”* “I can explain how Philo Farnsworth developed television by summarizing my notes on a storyboard.”* “I can connect the ideas on my three storyboards by using linking words and phrases.”• Ask students to consider and discuss:<ul style="list-style-type: none">* “How does using a specific color to highlight information help when summarizing?”• After 1 minute, cold call a few students to share their thinking. Listen for ideas such as:<ul style="list-style-type: none">– “Highlighting in one color helps me to organize the details so I know what I want to include in my summary.”– “Using different colors for different paragraphs helps me to keep the details organized so when I look back at my notes I can quickly find the details I used in each part of my storyboard.”• Ask students to consider and discuss:<ul style="list-style-type: none">* “How did the addition of linking words and phrases improve your triad’s writing?”• After 1 or 2 minutes, cold call a few students to share their thinking. Listen for responses such as:<ul style="list-style-type: none">– “The linking words helped us connect ideas between the different storyboards so that it flows clearly from one idea to the next.”– “The linking words made our writing sound clearer and less choppy.”• Explain that triads will continue revising their storyboards in the next lesson, including adding visual elements. Tell students they will begin brainstorming ideas for specific visual elements that might support their group’s work as a homework task.• Distribute the Homework Task Card: Unit 3, Lesson 7: Brainstorming Visual Elements. Preview as needed.	<ul style="list-style-type: none">• Offer sentence frames to provide all students access to the debrief prompts: “Highlighting in one color helps me _____” and “Linking words improved our writing by_____.”



Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Complete the Homework Task Card: Unit 3, Lesson 7: Brainstorming Visual Elements.• Read independently for at least 30 minutes.	<ul style="list-style-type: none">• Consider reviewing the homework task card whole group or with individuals who may need support. Make sure students understand they are selecting only two boxes from the graphic organizer to complete.



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Supporting Materials



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Storyboard, Section 2 Chart:
The Television

Who Was Philo Farnsworth?



Story Board, Section 2 Chart:
The Television (Answers, for Teacher Reference)

Philo Farnsworth grew up on a farm in Utah that did not have electricity. Even when he was very young, Philo was curious and was always asking questions. When he moved to a house in Idaho with electricity, he was fascinated by the

Philo Farnsworth was inspired by inventions like the telephone and the phonograph. He thought these inventions brought people together in new ways. He wanted to be an inventor, and he believed that he could use electricity to develop a television that would bring people



Writing Summary Paragraphs: Section 2
Task Card

1. Locate the “Background Information about the INVENTOR” box on each of your note-catchers.
2. With your group members, identify and highlight in pink three or four important details from the “Background Information about the INVENTOR” boxes that relate to Philo Farnsworth’s background. Remember that important details:
 - Relate to the title you highlighted
 - Might be repeated on more than one note-catcher
3. Choose one member of the group to be the recorder.
4. Work together to synthesize the key details you highlighted by discussing and then writing two three- to five-sentence summary paragraphs that explain two aspects of Philo Farnsworth’s background. Use your loose-leaf paper. Summary paragraphs should:
 - Clearly explain two distinct aspects of Philo Farnsworth’s background
 - Include relevant details from the note-catchers
 - Use precise vocabulary



Storyboard, Section 3 Chart:
The Television

Philo Farnsworth Invents the Television

A storyboard template for a presentation. It consists of a large rounded rectangle divided into two columns by a vertical dashed line. The left column contains a title box at the top and a large empty rounded rectangle below it. The right column contains a large empty rounded rectangle at the top and another large empty rounded rectangle below it.



Storyboard, Section 3 Chart:
The Television (Answers, for Teacher Reference)

Philo Farnsworth Invents the Television

Philo Farnsworth learned a lot about electricity. He read lots of magazines about science, including articles about people trying to build televisions. Many scientists thought they could make televisions using moving disks, but Philo thought it was a better idea to use electrons instead.

After learning about electricity, Philo developed an idea for an image dissector camera. It could make a television work by transmitting parallel lines of light as electrons and then reassembling them on a television screen. He found some investors and spent a lot of time trying to make his invention work. Finally he succeeded and invented the television!



Writing Summary Paragraphs: Section 3
Task Card

1. Locate the “Information about developing a SOLUTION” box on each of your note-catchers.
2. With your group members, identify and highlight in blue three or four important details from the “Information about developing a SOLUTION” boxes that relate to how Philo Farnsworth invented television. Remember that important details:
 - Relate to the title you highlighted
 - Might be repeated on more than one note-catcher
3. Choose one member of the group to be the recorder.
4. Work together to synthesize the key details you highlighted by discussing and then writing two distinct three- to five-sentence summary paragraphs that explain Philo Farnsworth’s process and solution. Use your loose-leaf paper. Summary paragraphs should:
 - Clearly explain how Philo Farnsworth developed a solution
 - Include relevant details from the note-catchers
 - Use precise vocabulary



Homework Task Card: Unit 3, Lesson 7

Directions:

- Consider how you could use visual elements to support readers' comprehension of the main ideas from Section 2 of your storyboard, "Who was Philo Farnsworth?"
- **Select two visual elements** from the chart below.
- For each visual element you select, **write a description or draw a sketch** of an idea your triad could use **to support readers' comprehension** of the information on your storyboard.

Image	Close-up Image
Speech Bubble	Thought Bubble
Diagram	Ambient Noise



Homework Task Card: Unit 3, Lesson 7

Directions:

- Consider how you could use visual elements to support readers' comprehension of the main ideas in Section 3 of your storyboard, "Philo Farnsworth Invents the Television."
- **Select two visual elements** from the chart below.
- For each visual element you select, **write a description or draw a sketch** of an idea your triad could use **to support readers' comprehension** of the information on your storyboard.

Image	Close-up Image
Speech Bubble	Thought Bubble
Diagram	Ambient Noise