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= total number of parts



Fluency instruction provides a bridge between being able to “read” a text and being able to understand it. Readers who decode word by word sound plodding and choppy. They are too busy figuring out the words to think about what they are reading. Fluent readers are accurate, quick, and able to read with expression. They make the reading sound interesting. Beyond the experience of the listener, fluent readers are also demonstrating skills that are crucial to their understanding of what they read. Fluent readers recognize words at a glance, group words into meaningful phrases, and move beyond the struggle to decode individual words. They are able to focus on making sense of what they read.

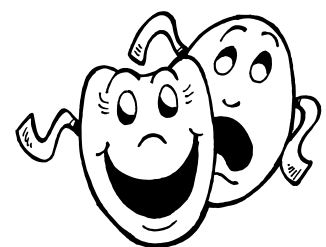
Reader’s Theater is an exciting way to help students improve reading fluency without being too time intensive for the teacher. It requires no props and no additional teaching skills on your part, and it is not difficult to manage. Reader’s Theater promotes better reading comprehension because students who have learned to read a passage expressively also come to better understand its meaning. In addition, research says that these gains transfer well to new text. Reader’s Theater also addresses standards in listening while providing a fun environment for everyone involved. When students practice their lines, they read and reread the same passages. Under your direction, they gradually add more expression, read more smoothly, and find any subtle meanings in the passages.

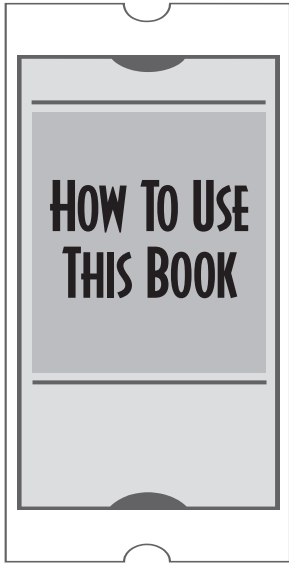
The scripts in *Philosophers to Astronauts Reader’s Theater* are intended to be read in large groups of 5 to 9 students. Each script is prefaced by an activity that focuses on vocabulary from the script, the factual and fictional background of the piece, fluency instruction specific to that script, and comprehension questions that span the levels of Bloom’s Taxonomy. Each script is followed by one or two whole-class activities related to the content of the script.

These scripts are designed for fluency instruction. While they are based on factual information about the time period or characters, many of the characters and scenes are entirely fictional. The overall purpose is to provide students with text at their reading level that is fun to read. The background section that precedes each script provides additional information about the characters or the period around which the script is built. All the scripts provide the following hallmarks of a good Reader’s Theater text:

- fast-moving dialogue
- action
- humor
- narrative parts

Philosophers to Astronauts Reader’s Theater provides hours of fluency practice that features characters students know and may even admire. The large-group format gives students an opportunity to work together to craft an entertaining reading for a peer or adult audience.





Each Reader's Theater script should be covered over the course of five practice days (although those days do not need to be consecutive). The first day should include some or all of the elements of the suggested reading instruction. It should also include an expressive reading by you of the script as students read along silently. On each of the following days, give students an opportunity to practice their reading. On the final day, have each group read its script for the class.

Five sections that support reading instruction precede each script. You will find **vocabulary, background information** for the script, **a brief description of each character,** specific **coaching for fluency instruction,** and **comprehension questions** that progress from the simplest level of understanding to the most complex.

On the first day of instruction, briefly discuss with students the vocabulary. Each vocabulary list includes a short activity to help students understand the meaning of each vocabulary word. For example, the vocabulary activity for Alexander Graham Bell (page 7) asks volunteers to create a chart that teaches the class about one of the words.

Next, use the background and information about each character to tell students what the script will be about and describe the characters.

Read aloud the script, modeling clear enunciation and a storyteller's voice. Do not be afraid to exaggerate your expression—it will hold the attention of your audience and stick more firmly in their minds when they attempt to mimic you later. Model the pacing you expect from them as they read.

Finish the reading instruction by discussing the fluency tips with students and having them answer the questions in the comprehension section.

Now it is time to give students a copy of the script! Use the following schedule of student practice for a five-day instruction period.

Day 1	After following the steps outlined on page 4, give each student a personal copy of the script. Pair students and have Partner A read all the parts on the first page, Partner B read all the parts on the second page, and so on.
Days 2 and 3	Assign students to a group. Give each group a script for each student, and have each student highlight a different part. Have students gather to read aloud the script as many times as time permits. Have them change roles with each reading by exchanging the highlighted scripts. Move from group to group, providing feedback and additional modeling as needed. At the <i>end</i> of day 3, assign roles or have students agree on a role to own.

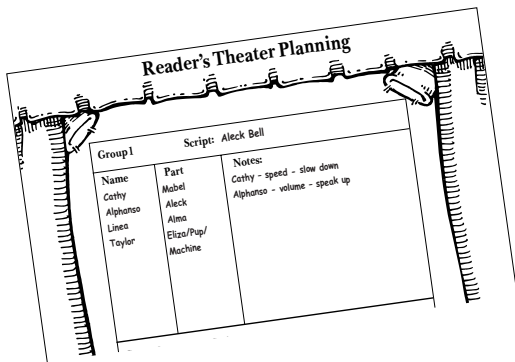
Day 4	Have each group read aloud the script. Move from group to group and provide feedback. Have students discuss their favorite lines at the end of each reading and why the manner in which they are read works well. Repeat.
Day 5	Have each group perform its script for the rest of the class (or other audience members provided by buddy classes and/or school personnel).

Throughout the week, or as time permits, provide students with the activity or activities that follow each script. These are optional and do not have to be completed to provide fluency instruction; however, many

provide students with additional background information that may help them better understand the characters or setting of the script.

Additional Tips

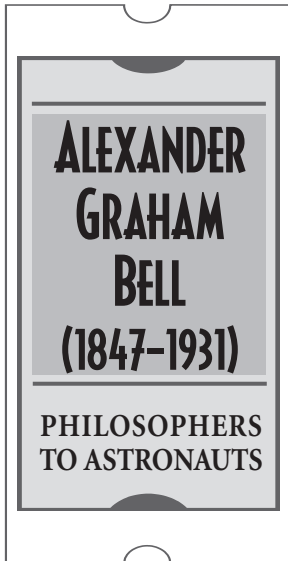
- Use the Reader's Theater Planning reproducible (page 6) to track the assigned roles for each group and to jot down any informal observations you make for assessment. Use these observations to drive future fluency instruction.
- Notice that there are no staging directions in the scripts. These plays are written to be read expressively in a storyteller's voice. If the focus is placed on *acting out* the script, students will shift their focus from the reading to the movement. If students become enchanted with a script and want to act it out, invite them to do so after they have mastered the reading. Then, have the group go through the script and brainstorm their own staging directions to jot in the margins.



- To fit fluency instruction into an already full day of instruction, it will work best to have all groups work on the same script. This will permit you to complete the first day's activities as a whole class. Students will enjoy hearing how another child reads the same lines, and some mild competition to read expressively will only foster additional effort.
- If you have too many roles for the number of students in a group, assign one child more than one part.
- If you have too many students for parts, divide up the narrator parts. As a rule, these parts tend to have longer lines.
- The roles with the greatest and least number of words to read are noted in the teacher pages. The 🏠 and 🏡 indicate a higher or lower *word count*. They are not a reflection of reading level. The narrator parts usually reflect the highest reading level. However, less fluent readers may benefit from having fewer words to master. More advanced readers may benefit from the challenge of the greater word count.

Reader's Theater Planning

Group 1		
Script: _____		
Name	Part	Notes:
Group 2		
Script: _____		
Name	Part	Notes:
Group 3		
Script: _____		
Name	Part	Notes:



VOCABULARY

Discuss each of the following words with students. Then, have students choose one of the words to research in a print or an online encyclopedia or dictionary. Have students create a chart that teaches the class more about their word.


- affectionate:** showing tenderness and care
- audience:** a group of people gathered to hear something
- bellows:** a device or piece of equipment with a chamber with flexible sides that can be expanded to draw air in and compressed to force the air out
- bypass:** to go around
- resonates:** echoes
- torturing (torture):** hurting on purpose (e.g., Aleck was *not* torturing his favorite pet.)
- vibrating:** moving rapidly back and forth or up and down

BACKGROUND

In this play, the children have just returned from seeing a speaking machine at a fair. Alexander Graham Bell really was known as Aleck and he did see the machine at a London exhibit with his father. The entire family was interested in speech, hearing, education of the deaf, and inventing in general. Aleck's uncle and grandfather were known for their talent in speaking. His father was a teacher at a school for deaf students where he met and married Aleck's mother, Elisa.

The dialogue, two neighbor girls, and exact nature of the speaking machine were invented for this play. However, Aleck and his brother did invent such a machine at the urging of their father and Aleck did succeed in manipulating his dog to get it to "talk." The neighbor girl in the play is named Mabel. This was actually the name of his future wife; however, they did not know each other as children in real life. His mother speaks in the play, but in Scotland at the time, she probably used a combination of some spoken words and sign. She really did use an ear tube, and Aleck really did talk from a very young age by speaking directly to her forehead—probably discovered when playing games in her lap as young children do with their mothers. Aleck's family was neither rich nor poor and the house really was full of pianos that everyone in the family played, including his mother.

PARTS

- 
- Narrator 1
 - ▲ Narrator 2
 - ▲ Narrator 3
 - Aleck Bell: 12-year-old boy
 - *Melville Bell: Aleck's father
 - ▼ *Elisa Bell: Aleck's mother
 - Melly Bell: 10-year-old brother
 - *Ed Bell: 16-year-old brother
 - ▼ Mabel: 9-year-old neighbor, girl
 - ▼ Alma: 10-year-old neighbor, girl
 - ▼ *Machine: a talking machine made by the boys
 - ▼ *Pup: the dog

*Have one student read the parts of Elisa, Machine, and Pup. Have a second student read the parts of Melville and Ed.

FLUENCY INSTRUCTION

Have students discuss the ages of the characters to help them reflect the maturity level in their reading. When you read aloud the script for students, have them listen for the following:

- In the opening scene, the first speaking character walks into a setting where a deaf woman is playing piano to an empty house. Have students discuss how this would be a rare moment when she could play at a volume that works for her without having to accommodate the needs of her hearing family. Point out that until the character of Elisa knows they are there, all lines will have to be read as if they are spoken over loud music.
- You enunciate very clearly whenever you are speaking for a character who is talking to Elisa. If your character then speaks to one of the other characters, your volume drops and you speak more casually.

- The meaning of a line can change subtly based on the words that are emphasized. Read the line **Aleck: Mom is home!** several times, each time emphasizing a different word. Explain that when you emphasize *Mom*, you imply a message about the volume level. When you emphasize *is*, it sounds as if you had perhaps been discussing whether or not she would be home. And when you emphasize *home*, it sounds as if you had been discussing whether she would be in one of a choice of specific places (e.g., the market, a neighbor's house, or home) or perhaps that you were worried she wouldn't be home and are relieved to find that she is.

COMPREHENSION

After you read aloud the script, ask students these questions:

1. What were Aleck and his brother, Melly, trying to invent?
2. From where did they get the idea to build the machine?
3. What were some of the parts the boys needed to build the machine?
4. Why do you think Aleck's father challenged him to make the machine?
5. How do you think having a mother who could not hear influenced Alexander Graham Bell?



ALECK BELL



PARTS

Narrator 1
Narrator 2
Narrator 3
Aleck Bell: 12-year-old boy
Melville Bell: Aleck's father
Elisa Bell: Aleck's mother
Melly Bell: 10-year-old brother
Ed Bell: 16-year-old brother
Mabel: 9-year-old neighbor, girl
Alma: 10-year-old neighbor, girl
Machine: a talking machine
made by the boys
Pup: the dog

Narrator 1: It is late morning and a woman is sitting in her house in Scotland practicing the piano. The house is mostly empty and she is smiling and relaxed.

Narrator 2: She is playing rather loudly.

Narrator 3: The door bursts open and into the hall rush two boys. They throw their coats on a coatrack.

Aleck: Mom is home!

Melly: What??

Narrator 1: Their father walks in behind them.

Narrator 2: The woman at the piano hits a wrong note.

Aleck and Melly: Oooh . . .

Narrator 3: Mr. Bell sticks his head in the living room and waves his hands to get his wife's attention. She stops playing and picks up a horn that is large and open at one end, small and narrow at the other.

Narrator 1: She sticks the small part in her ear. Melville Bell speaks into it.

Mr. Bell: We had a wonderful time at the show, dear.

Elisa: I thought you would!

Mr. Bell: I have challenged the boys to make a talking machine like the one we saw at the show.

Narrator 2: Aleck bypasses the horn and instead walks up to his mother and speaks just an inch from her forehead. His voice resonates in the bones in her head, and he knows his deaf mother hears him as well as if he spoke in the horn.



ALECK BELL

Narrator 3: He could speak in the horn, too, but he discovered this method when he was very young, and for them both, it seems more affectionate.

Aleck: He thinks we cannot do it.

Narrator 1: Mr. Bell winks at his wife.

Elisa: I know you can. But you will have to do it with an audience.

Aleck: What audience?

Elisa: Mabel and Alma will be over in a few minutes.

Melly: They will be in the way!

Aleck: It will be all right, Melly. They are not too bad, for girls. We will be upstairs, Mum!

Melly: Bye, Mum!

Narrator 2: Mrs. Bell returns to playing, but now that there are hearing people in the house, she plays softly, tilting her head low to the piano so she can hear the vibrating strings.

Narrator 3: Upstairs, they find their brother, Ed. He has just finished organizing the workbench that the boys use for their inventions.

Narrator 1: The entire Bell family is interested in speech and hearing . . .

Narrator 2: . . . and inventions in general. Aleck has already invented a machine that husks corn. One day he will invent a kind of plane.

Melly: Oh! This is perfect for the tongue, don't you think?

Narrator 3: He holds up a strip of leather.

Aleck: Yes!

Ed: You aren't going to mess up the room again, are you?

Narrator 1: Two girls from a nearby farm walk in the room.

Aleck: You will not believe what we saw today, Mabel!

Melly: It was a speaking machine! It sounded just like a person, but it was all made of metal and leather and cloth.

Mabel: What was it for?

Melly and Aleck: For?



ALECK BELL

- Ed:** Yes, why was it invented?
- Aleck:** Oh, who knows? But it was thrilling to hear it!
- Melly:** It made the hair on your neck stand straight up. That's for sure!
- Ed:** So you are going to invent one.
- Aleck:** Father bet us we couldn't.
- Mabel:** That's all it takes for you. How long do you think it will take?
- Aleck:** I think we can do it now! Melly already found us a tongue.
- Alma:** Yuck! Where?
- Melly:** Not a real tongue, just a strip of leather that can act like one. For example, I make a "t" sound by touching my tongue to my teeth.
- Melly and Aleck:** Tuh, tuh, tuh.
- Alma:** Yes, yes, we get it. You can make the leather tongue say "t" by touching it to fake teeth.
- Aleck:** Good thinking! We need teeth, brother!
- Mabel:** Puh, puh . . . I guess you need lips, too.
- Alma:** Huh, huh . . . and some air. And something that makes noise.
- Narrator 2:** Aleck picks up another piece of leather lying on the table. He pins it between the top and bottom of both thumbs and blows across it. It vibrates and makes a low "uhhhh" sound.
- Mabel:** Spooky!
- Melly:** Perfect!
- Narrator 3:** The boys begin to assemble the pieces they have found. With the girls' help, they find items around the house for the teeth, the mouth, and a nose.
- Narrator 1:** Melly blows through the back and Aleck moves the tongue.
- Machine:** Tuh, tuh.
- Melly:** It is too quiet. We need something that will focus the air better.
- Ed:** You need a throat for the thing.
- Aleck:** This piece of paper! We will roll it into a tube like this and tie it closed with this string.



ALECK BELL

Narrator 2: Melly blows hard through the throat. It is only a little louder.

Machine: Tuh, tuh.

Melly: Ooof. It is HARD to blow that much! There must be an easier way.

Aleck: I know! The bellows! Alma, get us the bellows from next to the fireplace there. No, the large one.

Narrator 3: She hands Aleck the bellows. He ties the string so that the end of the throat is tight around the end of the bellows.

Aleck: Pump the bellows hard, Melly.

Machine: Uhhhhhhhhhhh!

All: Yay!!

Aleck: OK, do it again while I move the tongue.

Machine: Tuh, tuh, puh, puh, put, put, thaaaaat, duh, duh, doowwwwnnnn.

Mabel: Put that down! You made it say “Put that down!”

Narrator 1: The dog comes in to investigate the strange noises. Aleck pats the dog on the head and then lifts the small terrier onto the workbench.

Alma: Now what are you doing, Aleck? Torturing the dog?

Narrator 2: Aleck has gently pushed the lips of his Skye terrier into a grin, and using a pencil, moves the patient dog’s tongue.

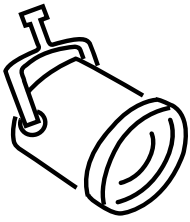
Aleck: No, watch, he likes it . . . speak, Pup!

Narrator 3: The terrier has been trained to growl softly when Aleck says, “Speak!” So he growls. Aleck moves the dog’s lips and tongue in the same way he moved the machine’s.

Pup: Noooo.

Ed and Melly: Oh! Go get Mother and Father! They have got to see this!

Narrator 1: And so, with the bet won, life continued in the Bell household.



RELATED LESSONS

What Conducts Sound?

OBJECTIVE

Explore the way different materials respond to a tuning fork.

ACTIVITY

In advance, place at a center **tuning forks of various pitches, some books, a small tub of water, and a rubber block.** (Look for inexpensive science-grade tuning forks through print or online science, music, and medical catalogues.*) Have groups of two to three students visit the center at a time. Give each student a **Sound reproducible (page 14).** Show students how to strike one tip of a tuning fork against the bottom of their shoe to hear its tone. Then, have them place it on each object listed on the reproducible and record their observations. When all students have had a chance to complete the experiment, discuss their observations as a class.

*The best prices found at time of printing were all under \$10 each and include www.nursestop.com and www.best-priced-products.com.

The Inventions of Alexander Graham Bell

OBJECTIVE

Gather information about the life of the famous inventor.

ACTIVITY

Give each student a **Bell's Inventions reproducible (page 15).** Review the questions on the bottom of the reproducible, and have students set a purpose for reading. Have students read the paragraphs. Then, divide the class into pairs, and have each pair answer the questions. Discuss the answers as a class.

Answers

1. This piece describes Alexander Graham Bell's plane and hydrofoil.
2. The plane was called the Silver Dart. It was the first Canadian-manned plane to fly. It traveled 40 mph and flew for a full half mile.
3. It was used in World War I to travel on the water and avoid mines.

Name _____

Date _____

Sound

Directions: Strike the tuning fork against the bottom of your shoe and listen to the tone it makes. Then place it on the following objects and write what happens to the sound.

Object	What Happens?
table	
water	
book	
rubber block	
your forehead	

What kinds of materials make the tone stop? _____

What kinds of materials make the tone louder? _____

Did any of the materials vibrate in a way that you could see?

Describe what happened. _____

Bell's Inventions

Directions: Read the passage. Answer the questions on a separate piece of paper.

Alexander Graham Bell was the second son of three sons. His mother was an educated deaf woman. His father was an educator of the deaf who taught deaf children to speak and understand spoken words. The men in his family were noted speakers and researchers in speech and hearing. Bell's most famous invention, the telephone, was a result of his interest in sound. But did you know that he also invented a plane and a hydrofoil used in World War I?

Bell's plane was called the *Silver Dart*. He began developing models of planes in the 1890s—well before the Wright brothers' successful first flight. At the time, many men who worked on developing planes were ridiculed. Bell flew his models in the evening in a small town in Nova Scotia, Canada. In 1907, four years after Orville and Wilbur Wright flew their plane, Bell and his friends flew the *Silver Dart*. It was the first plane to fly in Canada, and it traveled at 40 mph (64 km) for a full half mile (804 m). At the time, this was very fast and a very long distance for a plane to fly.

Bell invented the hydrofoil while he was working on his plane models. He wanted a way to take off and land on water. Later, when the United States entered World War I, he wanted to contribute his efforts to their victory. One problem that the Navy faced was waters full of mines. Bell invented his hydrofoil to skim over the surface of the water, avoid mines, and travel quickly. It reached top speeds of 70 mph (113 km), an incredible speed in 1918.

Alexander Graham Bell's name will always be associated with the telephone, but it was not his only clever and useful invention.

Questions

1. What two inventions of Alexander Graham Bell does this piece describe?
2. List three facts about his airplane.
3. Tell how Bell's hydrofoil was used.

