

# A Grandin Scheme

## Learning Empathy, Teaching Concepts

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Mention therapy dogs and children are most likely excitedly familiar with the cute and common four-legged helpers. Perhaps some have heard of or even participated in equine therapy. Therapy cows though—or stranger still—therapy *for* the cows? Unlikely. Yet, it is a real thing!

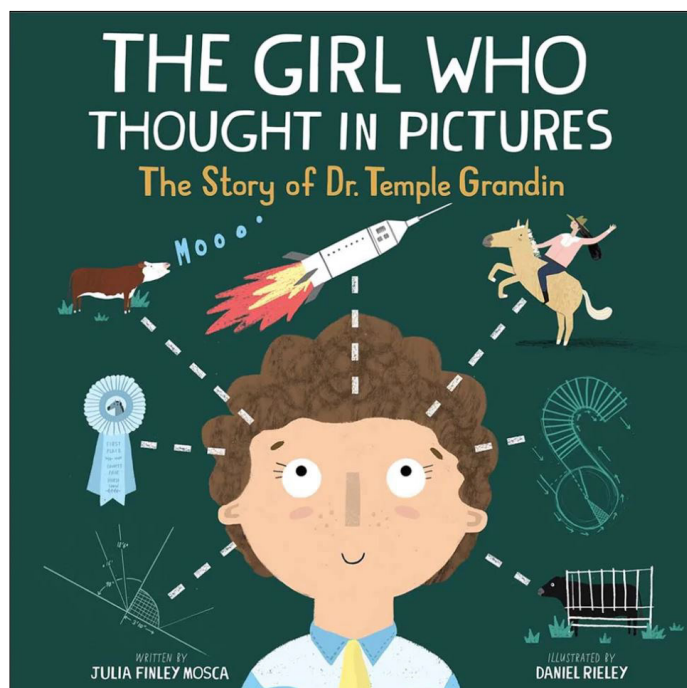
In Bell Fork (NC) Elementary's book promotion, which can be used as a stand-alone activity or as a component of a larger library program, students learn about renowned animal scientist Temple Grandin, who credits her autism for giving her the ability to approach problems differently.

Through discussion of Julia Finley Mosca's *The Girl who Thought in Pictures: The Story of Dr. Temple Grandin*, children learn how Grandin's empathy, perspective, and ingenuity led to the development of more effective and humane agricultural equipment.<sup>1</sup>

Decades after her first agricultural breakthrough and multiple successful TED Talks later, Grandin is now equally recognized for her work as a woman in STEM and as an advocate for autism awareness. While her contributions across disciplines are widespread, one unifying thread of her work is empathy.<sup>2</sup> Throughout the following activity, which can be adapted to suit physical or virtual audiences (*I have tried!*) young readers are invited to think empathetically about those with disabilities and generate thoughtful solutions to unique problems they observe in the world around them.

### Set the Stage

Regardless of age, with a virtual or physical audience, emerging research strengthens the argument that kinesthetic



engagement is an important factor of quality.<sup>3</sup> Kinesthetic engagement may include providing physical responses to prompts, moving around the space, drawing or any activity which requires children to physically participate in their learning. Whatever the method of movement, findings show that kinesthetic activities increase motivation, improve cognitive functioning, and deepen student learning.<sup>4</sup> To take advantage of these benefits, students are invited to provide physical responses throughout the activity.

Once the stage has been physically set for the students (preparing the reading area, ensuring ample space to move around, etc.), it is time to set the stage *mentally*. This program was originally prepared for and delivered to a group of elementary Girl Scouts working towards an animal caretaking badge. As such, their prior knowledge was activated via a series of questions regarding their recent trip to a farm. While your students may not have visited any farms recently, most participants may be, in some way, familiar with farms, cows, and caring for animals. It is also likely that even the youngest



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## Taking it Further

Interested in extending this reading program? Here are some supplemental ideas.

- Incorporate engineering by inviting students to construct models of their inventions
- Share one of Temple Grandin's TED Talks:
  - "Educating Different Kinds of Minds," <https://www.youtube.com/watch?v=lqntS1YRRO4>
  - "The World Needs All Kinds of Minds," [https://www.ted.com/talks/temple\\_grandin\\_the\\_world\\_needs\\_all\\_kinds\\_of\\_minds?language=en](https://www.ted.com/talks/temple_grandin_the_world_needs_all_kinds_of_minds?language=en)
- Promote autism awareness
  - Temple Grandin on autism: <https://www.youtube.com/watch?v=1qPFAT4p8Lc>
- Share similar titles with neurodivergent characters and themes
  - Beaty, Andrea. *Aaron Slater, Illustrator*. Illus. by David Roberts. Abram, 2022, 40p.
  - Robinson, Holly, et al. *My Brother Charlie*. Illus. by Shane W. Evans. Scholastic, 2010, 40p.
  - Rudolph, Shaina, et al. *All My Stripes: A Story for Children with Autism*. Illus. by Jennifer Zivion. Magination, 2015, 40p.
  - Stone, Kaiya. *Everything Is Going to Be K.O.: An Illustrated Memoir of Living with Specific Learning Difficulties*. Illus. by the author. Head of Zeus, 2020, 288p.
  - Welton, Jude, and Jane Telford. *Can I Tell You about Autism?: A Guide for Friends, Family and Professionals*. Illus. by Jane Telford. Jessica Kingsley Publishers, 2014, 64p.

of audience members will be able to recall feelings of both loneliness and frustration. However, it is appropriate for the given group to spend a minute or two prompting participants to discuss these themes. Activating this prior knowledge and cuing for the emotional content of the story builds connections between past and present learning, hooks readers' attention, and sets the foundation for information to come.<sup>5</sup>

Lastly, introduce the book, telling audiences that Grandin is a scientist who was able to help people and animals in new ways because she thought about problems *differently*. Unfortunately, she almost was not able to share her ideas because she communicated *differently* too.

## Emotional Charades

"Yahoo! Yes! Yes! Yes!" I shout, "This is so awesome!"

Feel free to adapt and make this introduction your own, but whatever emotion you choose, lean into the feeling! Your performance will set the stage for their upcoming participation.

Children may be confused by the sudden outburst for a brief moment, but there should be no confusion about the emotion being presented.

"How would you guess I feel? Why do you think that?" I ask.

After students give their responses, I compliment their emotional observations and follow up with another challenge.

"You all did excellent using word clues to figure out how I was feeling, but sometimes, people have a tough time using words to express their ideas. Thankfully, there are other ways to communicate! This time, using just your face I prompt, 'Can you communicate to me that you feel . . .'" (any simple message such as angry, sad, tired, saying goodbye, etc., will do). Students next "act out" the given prompts. Some students may need more time to grow comfortable with this, but the low stakes and group setting should increase participation.

Once the group has briefly demonstrated a number of actions, call them back. Complimenting the group, I say, "Wow! What actors! OK, I will make it more challenging."

"Still using only your body—no words at all—how could you communicate . . ." (this time choose something more complex such as, "The pink socks are itchy and the blue socks are missing, what can I wear?" or "The movie was very confusing because I fell asleep in the middle and missed a lot of the story").

"That is much more difficult right? How did it feel to not be able to use language?" I ask.

Students may have a range of responses, but when conducting this activity in groups, frustration was common—and that was the goal. By experiencing this themselves, students can better empathize with the frustration Grandin feels at various points throughout the book. Before finally introducing the story, I remind the children that just because they could not use words did not mean that they did not have or understand big, important thoughts and feelings.

"Try to remember how that frustration felt," I may prompt. "In the story I have for you, you will hear about a smart young girl whose ideas changed the world once people were able to hear them."

## Read the Book Aloud

While reading the picture book aloud, take time to draw children's attention to the multiple text features and descriptive illustrations. Many illustrations depict Grandin's contemplation of how and what animals around her might be thinking. These scenes, for example, are an excellent opportunity to comment on empathy and perspective. As with any story, model literacy strategies such as thinking aloud, clarifying

vocabulary, and checking for understanding of the author's message.

Begin by bringing the group's attention back to pages with visualizations of Grandin's picture thoughts and discuss the detail in the illustrations of her thoughts. For example, point out the close-up illustration of a cattle ramp's cross-hatching, which shows how the texture provides grip, making it easier for cows to walk without slipping. This page is one of several which demonstrate how Grandin was able to identify and solve a problem which was invisible to others.

To close the read aloud, reiterate the main idea of the story, which is that growing up Grandin experienced the world in ways that were different from most other people, but that her ability to think differently led to new inventions. Some closing discussion prompts may include:

- Did you enjoy the book?
- Was Temple smart even though she thought differently than others? Why do you think that?
- Do you think the author wrote this book to make fun of farmers?
- Do you think the author wrote this book to teach a lesson? What lesson?

After the story and discussion have concluded and students have provided their initial responses either to a neighbor or to the group, it is time for them to start thinking like Grandin; this is when the children's work begins.

## References

1. Andy Lamey, "The Animal Ethics of Temple Grandin: A Protectionist Analysis," *Journal of Agricultural and Environmental Ethics* 32, no. 1 (2019): 143–64, <https://doi.org/10.1007/s10806-019-09761-8>.
2. Priscilla Paton, "Temple Grandin and the Neuroscience of Empathy," *JAC* 33, no. 1/2 (2013): 352–63, <http://www.jstor.org/stable/43854556>.
3. Chandler Renesha, Lidiya Grote, and Latisha Reynolds, "Making Moves: Engaging Students in Information Literacy Instruction with Kinesthetic Activities," *Kentucky Libraries* 84, no. 3 (Summer 2020): 11–15, [https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,](https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=llf&AN=145195996&site=ehost-live&scope=site)
4. Casey L. Peiris et al., "Classroom Movement Breaks Reduce Sedentary Behavior and Increase Concentration, Alertness and Enjoyment During University Classes: A Mixed-Methods Feasibility Study," *International Journal of Environmental Research and Public Health* 18, no. 11 (2021): 5589, <https://doi.org/10.3390/ijerph18115589>.
5. Larry Ferlazzo, "The Whys & Hows of Activating Students' Background Knowledge (Opinion)," *Education Week*, June 16, 2020, [https://www.edweek.org/teaching-learning/opinion-the-whys-hows-of-activating-students-back](https://www.edweek.org/teaching-learning/opinion-the-whys-hows-of-activating-students-background-knowledge/2020/06)

## Picture Problem Solving

Next comes the most exciting part of the program—the children's ideas. Invite students to identify problems in their own worlds and generate creative solutions.

Depending on the size, age, and ability of the group, it may be helpful to generate some ideas for problems as a whole group prior to individual work time. While some children will readily think of problems and be able to illustrate ways to solve them, others may benefit from more structured support and a narrower topic of focus. For these children, it may be helpful to limit their focus to topics such as

- the library and/or school;
- transportation;
- cooking/food;
- cleaning;
- the environment;
- animals;
- the last thing that bothered them; and
- anything that interests them.

Lastly, whether the activity concludes after one session or continues throughout multiple days, children should have the opportunity to share their ideas and creations. Provide time for participants to discuss the problems they perceived and share their ideas and illustrations on how it can be improved. I cannot predict what they may invent, but I can promise that their creativity will surprise and inspire. &