Early Childhood Resources Review

ASTRONAUTS ZOOM: AN ASTRONAUT ALPHABET
By Deborah Lee Rose
September 2020
Persnickety Press
36 pages
$16.95

Astronauts Zoom! An Astronaut Alphabet is an effective introduction to the life of the astronauts who live and work in the International Space Station (ISS), a large spacecraft science lab orbiting around Earth, built through a partnership of five space agencies from 15 countries. The ISS has been continually inhabited by astronauts since the first crew in 2000.

Engaging photographs illustrate the minimal text on each page, one for every letter of the English alphabet. Highlighted words representing those letters relate to actions astronauts have in common with life on Earth rather than actions specific to living in space (e.g., awake, brush, clean)—a great way to make astronauts relatable.

Additional text is listed for each page at the end of the book, adding details about the photographs. The details, such as “astronauts see a new sunrise—every 90 minutes,” may challenge children to figure out the spatial relationship between the Earth, Sun, and the ISS.

Although the “A to Z” format introduces letter recognition and life in space, even children who are already space enthusiasts will find new information here and have their understanding of the work of astronauts expanded. Reading the book may inspire an ongoing investigation into additional resources about life in space and the work astronauts do.

Connections to the Next Generation Science Standards are not explicit but could be easily made to the content in the book. The astronauts’ work and life aboard the ISS illustrates the way science learning, as described in the Framework and especially in early childhood, integrates many domains. For example, like astronauts, children explore a new-to-them area they are getting used to a new environment, exercising their bodies, using tools and the practices of science and engineering, and making discoveries. The afterward text that expands on the short text on the alphabet pages includes progressions in the disciplinary core ideas.

Space is not an environment children can touch and manipulate but is a rich topic for imaginative play. Children will enjoy pretending to live, eat, work, and play aboard a space station and the images and ideas from the book provide fuel for the imagination. Imaginative play can provide a space for children to build their understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On nights in places dark enough to see many stars, the ISS can be seen moving across the sky (see Online Resources). Additional stories and video support children’s understanding of how the experience of space is the same and different to living on Earth. Young children without prior exposure to ideas about human activity in space will need help to place where the ISS is. On

Use the book as part of an exploration of environments, a study of the work of scientists, or the topic of human exploration. Although the photos reveal limited views of the ISS interior, viewing the “Story Time From Space” reading of the book by JAXA Astronaut Koichi Wakata expands readers’ understanding of the interior of the ISS (see Online Resources).

End of book pages list the names of pictured astronauts and what they are doing in the photos. The free Educational Guide suggests conducting additional research on these astronauts to learn more about their career. Older students may write a biography.

The Educational Guide also suggests doing an Astronaut Tools Treasure Hunt Activity to encourage children to look closely at the photos in the book and think about how the tools, such as gold-coated helmet visors, help the astronauts do their work in the environment of space.

SUGGESTIONS TO PAIR WITH THE BOOK

Follow up the classroom read-aloud with the Astronaut Tools Treasure Hunt Activity listed in the Educational Guide.

Provide materials and time for children to explore light and shadow.

- View and listen to the book being read from the ISS by JAXA Astronaut Koichi Wakata, or other books that have been read from the ISS.
- Read NASA Knows! for Students K–4, What Is the International Space Station? (see Online Resources).
- Watch the Flights of Fancy Story Times, a series of stories about aeronautics and space exploration (see Online Resources). Then provide materials and time for children to engage in imaginative play to reflect on the work of astronauts. These two directly relate to ideas in the book and the Educational Guide.
• Flights of Fancy Story Time: Building Our Home Among the Stars—In this story time we introduce the ISS and why it was built. This introduction is followed by a story about children watching the ISS fly overhead and imagining what it would be like to be on the station. The story is followed by a demonstration of how to build a model of a Space Station using recycled materials.

• Flights of Fancy: Three Friends and Mo Spacewalk—This story focuses on science work that is done on the International Space Station and how astronauts protect themselves in space. In the story, children use tools to build a toy and imagine working on the ISS with special tools. The craft time shows how to make a space snack of PB&J on a tortilla.

If you have introduced the eight practices of science and engineering, invite children to identify photos where the astronauts are using them.

Challenge yourself or invite children to identify where the content relates to the seven crosscutting concepts from the Framework, for example:

1. Patterns: Sunrise/sunset
2. Cause and effect: Microgravity effects
3. Scale, proportion, and quantity: How the Earth looks so small from space
4. Systems and system models: All the parts of the ISS that are needed to sustain life.
5. Energy and matter: Sun’s energy and the effect on the ISS.
6. Structure and function: Spacesuits, robotic arm, sleeping bags
7. Stability and change: How is the orbit of the ISS maintained?

Let your research be inspired and your imagination be supported with evidence of what living in space is like as seen in the charming book *Astronauts Zoom!*

**ONLINE RESOURCES**

*Astronauts Zoom!*
https://storytimefromspace.com/astronauts-zoom

Live Space Station Tracking Map
https://spotthestation.nasa.gov/tracking_map.cfm

Nasa Knows
www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-the-iss-k4.html

Story Time from the National Air and Space Museum
www.youtube.com/playlist?list=PL6RlkQnoCx_URXpH7jY2aNO7g7OdWtas

---

Peggy Ashbrook ([scienceissimple@yahoo.com](mailto:scienceissimple@yahoo.com)) is an early childhood educator and writer. Ann Caspari ([Caspariak@si.edu](mailto:Caspariak@si.edu)) is an early childhood education specialist at the Smithsonian’s National Air and Space Museum.