



## **Day in the Life: Helping Hands, Helping Paws**

### **Curriculum Resource**

### **Grades 9-12**

#### **Overview**

Experience the power of the human-animal bond through the personal story of Aerial, an extraordinary woman with vision loss, and her guide dog, Hedda. By experiencing a day in the life of Aerial and Hedda, students will truly understand the value of teamwork. Students will be exposed to the daily challenges blind people experience and the accommodations they must make to successfully function in society. Aerial's story will highlight the empowering partnership between humans and guide dogs, a partnership that provides people with vision loss freedom and independence.

Students will also acquire knowledge of the special care and training involved in developing guide dogs as well as an understanding of the appropriate etiquette when interacting with a guide dog. After participating in this excursion, students will have a greater appreciation for the resilience of humans and animals in overcoming obstacles to achieve dreams!

#### **Biography of Expert**



Aerial Gilbert is the director of volunteers for Guide Dogs for the Blind. She manages a vibrant staff of 500 dedicated volunteers who tackle a variety of jobs from giving campus tours to caring for the organization's dogs and puppies. Her own dog, a 3-year-old German Shepherd Guide Dog named "Hedda," assists her in her daily travels. As a team, they demonstrate the enhanced mobility that is the essence of guide dog use.

Aerial is also an avid athlete. She rows regularly on San Francisco Bay and has competed successfully in the Sausalito Open Water Regatta, the Tahoe Regatta and the 33-mile Annual Catalina Crossing across open ocean. In September 2002, she competed in the first-ever Adaptive Division of the World Rowing Championships in Seville, Spain; her team took home the bronze medal. In August 2003, she competed in the adaptive division of the World Rowing Championships in Milan; her team came in fourth. In summer 2004, Aerial competed with the United States Rowing Team in the World Championships in Banyoles,

Spain. If enough teams participate, rowing will be sanctioned as an official Para Olympic sport in the 2008 Olympics in Beijing.

She is a member of the Board of Directors of Sonoma County's Earle Baum Center of the Blind, a member the Volunteer Center of Marin, the Association for Volunteer Administration, and the American Council of the Blind and Guide Dog Users, Inc. She is a registered nurse with a Bachelor of Science degree in biology.

Through her work with Guide Dogs for the Blind, her personal courage and spirited enthusiasm for life, Aerial has helped many others understand blindness. She shares her personal experiences in public presentations to fraternal organizations, businesses, schools and other groups. She has been featured in numerous publications, including *Sunset*, *Outside* and *Family Circle* as well as on the website:  
<http://www.incrediblepeople.com>.

## Learning Objectives

Topic: Excursion	Learning Objective(s)
Human-animal bond: Guide dogs for the Blind	<p>Students will acquire knowledge of:</p> <ul style="list-style-type: none"> <li>• the empowering and special human-animal bond;</li> <li>• the care and efforts involved in training dogs to guide people with vision loss;</li> <li>• the appropriate etiquette involved in interacting with a guide dog.</li> </ul> <p>Students will develop:</p> <ul style="list-style-type: none"> <li>• appreciation for the resilience of humans and animals in overcoming obstacles;</li> <li>• empathy for people with disabilities.</li> </ul>

### National Standards Addressed

The following are National Standards addressed through basic participation in the journey. Engagement and participation in additional pre- and post-activities (provided below) will expand the scope of standards addressed.

<b>Grades 9-12</b>
<b>Science: National Academies of Science</b>
<ul style="list-style-type: none"> <li>▪ Science in Personal and Social Perspectives: students will develop an understanding of personal and community health</li> </ul>
<b>Language Arts: National Council of Teachers of English</b>
<ul style="list-style-type: none"> <li>▪ Communication skills: students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.</li> <li>▪ Evaluating data: students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.</li> <li>▪ Developing research skills: students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.</li> <li>▪ Applying language skills: students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).</li> </ul>

**Technology: National Educational Technology Standards**

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

## **Preparation for the Excursion**

To ensure the most meaningful learning experience for your students, it is recommended that students investigate the resources provided and engage in activities prior to the excursion. The video resources provide students with a context for the virtual excursion. The additional resources and activities offer opportunities for curricular connections and integration within your larger unit of study. The excursion is intended to complement a comprehensive unit. During the excursion, classes will be asked to share their response to the challenge question and the expert will provide feedback. It is recommended that your students decide as a class on *one* response to the challenge question.

## **Video Resources**

This 13 minute video explains the mission of the organization, the process involved in training guide dogs, and the impact guide dogs have on people with vision loss.

[http://easylink.playstream.com/21\\_CenturyLearning/journeys/animals/Guide\\_Dogs\\_Special\\_Partners\\_short.rm](http://easylink.playstream.com/21_CenturyLearning/journeys/animals/Guide_Dogs_Special_Partners_short.rm)

This short compelling video tells the story of Michael Hingson and his guide dog Roselle. Michael and Roselle survived the September 11<sup>th</sup> tragedy by working as a team. His story is truly inspirational and powerful.

[http://easylink.playstream.com/21\\_CenturyLearning/journeys/animals/Guide\\_Dogs\\_Hingson.rm](http://easylink.playstream.com/21_CenturyLearning/journeys/animals/Guide_Dogs_Hingson.rm)

Guide Dogs for the Blind offers many audio and video clips that capture the essence of the human-animal bond. <http://www.guidedogs.com/AV.html>

## **Challenge Question**

What is the human-animal bond?

## **Answer**

The human-animal bond is a mutually beneficial and dynamic relationship between humans and other animals that is influenced by the behaviors that are essential to the health and well-being of both. This includes the emotional, psychological, and physical interactions between humans and animals, and the environment.

## **Activities**

\*Activities taken from the Guide Dogs for the Blind's "*At a Glance – A Classroom Guide*" educational resource. See attached lessons for the complete activity. The complete educational resource can be downloaded from the Guide Dogs for the Blind's website.

## **Grades 9-12**

*Accommodation*

*Your body in your mind's eye*

## **Resources**

The resources provided offer background information and ideas for integrating the excursion within a larger context of study.

### *Background Information*

Guide Dogs for the Blind: <http://www.guidedogs.com>

The official website of Guide Dogs for the Blind offers a wealth of information about the organization, raising and training guide dogs, blindness and vision loss as well as information on how to get involved in the organization's efforts. The website offers a number of audio and video pieces that capture the essence of the human-animal bond.

Aerial's Blog: <http://home.earthlink.net/~gdbdeanne/worlds2003/>

Get to know Aerial before the live interaction by visiting her blog. Aerial shares her journal for the World Rowing Championships in 2004, discussing her life story, challenges, and passions. You will very quickly realize that she is truly an inspiration! Hedda's Training Journal (Aerial's current guide dog) tells Aerial's story of meeting and partnering with her guide dog.

### *Educational Resources*

Exploratorium: Science Snacks

<http://www.exploratorium.edu/snacks/iconperception.html>

Exploratorium Science Snacks are miniature versions of some of the most popular Exploratorium exhibits. The experiments and lessons allow students to actively explore perception. Each learning experience includes directions for the experiment or learning experience, guidelines on what to observe, and clear descriptions and explanations of the scientific principles involved.

American Foundation for the Blind: <http://www.afb.org/>

This website offers comprehensive information regarding Helen Keller, including photographs and the online Helen Keller Kids Museum. The website also provides information and activities for students on Braille.

### *Animals helping humans*

Pet Education: [http://www.peteducation.com/category\\_summary.cfm?cls=0&Cat=1278](http://www.peteducation.com/category_summary.cfm?cls=0&Cat=1278)

To further explore the ways animals help humans, investigate information and stories about pet therapy and other assistance and working dogs (i.e. rescue dogs) found on this website.

### **Key terms**

As these terms will be used throughout the journey, it is advised students understand their meaning before the excursion.

- Blind: lacking the ability to see, without sight
- Visual impairment: partial sight
- Peripheral vision: vision using only the periphery of the retina
- Tunnel Vision: vision in which the visual field is severely constricted, as within a tunnel looking out
- Spotted/blurred vision: vision in which the entire field of vision is spotted, blurred or double
- Handler: someone who trains animals

- **Human-animal bond:** a mutually beneficial and dynamic relationship between humans and other animals that is influenced by the behaviors that are essential to the health and well-being of both.
- **Teamwork:** cooperative effort by members of a team to achieve a common goal
- **Partners:** one that is united or associated with others in an activity or sphere of common interest
- **Kennel:** an establishment where dogs are bred, trained, or boarded
- **Training:** to coach in or accustom to a mode of behavior or performance
- **Orientation:** a person's sense of special awareness and direction in relation to themselves
- **Accommodation:** adjustment or adaptation
- **Senses:** any of the five ways to perceive, namely touch, smell, taste, sight, and hearing
- **Mobility:** moving from place to place
- **Braille:** a tactile alphabet made up of a series of raised dots

### **Questions for the Expert**

Please forward any questions your students may have for the expert to Lia Woo at [lia.woo@21-learn.com](mailto:lia.woo@21-learn.com).

### **Further Investigation: ideas to enhance students' learning *after* the excursion**

#### *Reflection*

RAFT Assignments: **Role, Audience, Format, Topic**

RAFT assignments offer creative ways to engage students in reflective thinking and to build students' writing skills. Students take a specific 'role', write with a particular 'audience' in mind, following a certain format on an assigned topic. The following is an example that relates to the journey:

#### **Grades 9-12**

Role: Director of Volunteers at Guide Dogs for the Blind

Audience: Public

Format: Brochure

Topic: Volunteering at Guide Dogs for the Blind

\*Please send your students' RAFT assignments to *Guide Dogs for the Blind* at:

P.O. Box 3950

San Rafael, CA 94912-3950

#### *Service Learning*

Determine if there is a local Puppy Raising chapter in your community. If so, contact the organization to inquire about volunteer opportunities for your students. If there is a local organization devoted to raising and/or training guide dogs, investigate whether the organization sponsors *Doggie Tales*, a creative reading program that helps young readers build their confidence and skills as well as helps socialize guide dogs. The program originated at the Salt Lake City Public Library and is gaining popularity. Engage your school's older students in coordinating, organizing, and marketing the event with the help

of your local Puppy Raising chapter and library district. Your younger students will enjoy reading a story to a non-judgmental reading companion. For additional information on the program visit: <http://hpwtdogmom.org/club/info/doggitaes.html>

## ***Accommodation***

### *Passports: Day in the Life: The Human-Animal Bond*

#### **Learning Objective**

- Students will understand how people with vision loss must make accommodations.

#### **Key Terms**

- Accommodation means “adjustment or adaptation”.

#### **Materials**

- Copies of the Braille message
- Braille decoder
- Toothbrushes
- Toothpaste
- Plastic water pitchers
- Plastic water glasses
- Paper towels
- Several coins of varying denominations

#### **Preparation**

- Copy the Braille message and decoder
- Set a table with the following objects: toothbrushes, toothpaste, plastic water pitchers, plastic water glasses, paper towels, and coins

#### **Activity**

- Share the accommodations Laurie, an eighth grade student, makes daily. Laurie uses a computer. Instead of using sight to read the computer screen, she uses her hearing. She uses talking software that reads the words aloud. It also announces the words as she types. Laurie’s computer software allows her to surf the Internet. Instead of using a mouse, however, she uses keyboard commands to navigate around the screen. Her teachers scan her assignments into the computer and then print them out in Braille so that Laurie can read them.\
- Ask students to visit the American Foundation for the Blind website ([www.afb.org](http://www.afb.org)) to learn more about Braille.
- Ask students to decode the enclosed Braille message with the Braille decoder.
- Blindfold one or more students and ask them to try and apply toothpaste to a toothbrush, fill a glass with water, and identify coins. Some helpful hints:
  - One way to get toothpaste neatly on to a toothbrush is to place your finger beside the bristles of the brush to feel how much paste is being squeezed from the tube where it is being applied.
  - When pouring any cold liquid, place your finger over the edge of the glass to feel the level of liquid as it reaches the top of the glass.

- Coins are easily differentiated by their size and by the ribs on their edges. Quarters and dimes, of course, both have ribbed edges, and pennies and nickels have smooth edges.

## ***Your body in your mind's eye***

*Designed by the Exploratorium:*

[http://www.exploratorium.edu/exploring/bodies\\_mag/minds\\_eye.html](http://www.exploratorium.edu/exploring/bodies_mag/minds_eye.html)

*Passports: A Day in the Life: The Human-Animal Bond*

### **Learning Objective**

- Students will learn about proprioceptors, tiny sensors in their muscles, tendons, joints, and inner ear.
- Students will be introduced to the concept of perception.

### **Materials**

- None

### **Preparation**

- None

### **Activity**

Can you take a sip of water from a cup with your eyes closed? Will you spill the water all over yourself? Of course not! For most of us, this is a routine task that we don't even have to think about. But how can you do this? Without vision, you can't see the cup, or your hand propelling the water to your mouth, yet you don't usually pour the water down your shirt or in your ears. Try this simple experiment to learn more about how you form mental images of your body's position in space, independent of vision.

### **To Do and Notice**

During this exploration, it's very important for you to keep your eyes closed the entire time, work quickly, and carefully observe how your body responds. So for the best experience, either read all of the instructions before beginning or have a friend read them to you while you do the activity.

1. Close your eyes and raise both hands above your head. Keep the fingers of your left hand totally still (no wiggling!).
2. Touch the tip of your right index finger to the tip of your nose, then quickly use the same finger to try to touch the tip of your left thumb. Keep your left hand still. Even if you "miss," go on quickly to the next step.
3. Again touch your right index finger to the tip of your nose and immediately use the same finger to try to touch the tip of your left index finger.
4. Repeat the process three more times, each time trying to touch a different finger on your left hand. Keep track of how many times you succeed in touching the tip of the correct finger. How successful were you at finding each fingertip? Did your performance improve with time?

5. Now repeat the activity, but this time gently wiggle the fingers of the hand you hold in the air. Are you more successful in touching the designated fingertip?

Most people are surprised to find out that they have a difficult time touching their fingertips precisely—they come close but don't make contact. Success usually improves when the fingers of the target hand are wiggled slightly.

### **What's Going On?**

Even with your eyes closed, you have a sense of body position—where your arms and legs are, what direction you turn your head. This sense of body position comes primarily from information sent to your brain by *proprioceptors*, tiny sensors in your muscles, tendons, joints, and inner ear. Proprioceptors detect stretching, elongation, and other changes; this information is used by your brain to create an unconscious picture of your body and its parts in three-dimensional space. Since most of us are highly dependent on visual cues for judging distances and positions, proprioception alone is not enough to give our brains the finely detailed information needed to touch a distant body part with great accuracy. Wiggling the fingers of the target hand increases the success rate of finding the fingers because it causes elongations, contractions, and tension changes that are detected by the proprioceptors there. With this additional information, the brain is better able to picture the location of the target hand in space.