Getting a Feel for Space

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Why?

- ~20% US population aged 5 > (~50 million) with sight or hearing loss
- ~10% with limited basic physical activity
- > 6.5 million US students have some form of disability (US Census Bureau)

- 46% of students with disabilities spend 80% of their academic day in regular classrooms (AYPF, 2002)

Students with special needs are required to achieve the same academic levels as non-impaired peers – need science, technology, engineering & math (STEM) materials, resources and educator Professional Development
Learning Styles

- Auditory
- Visual
- Tactile
- Kinesthetic
Who do we serve?

- Visible & Invisible
- Hearing
- Sight
- Physical
- Learning
- Multiple
A Marsden Giberter

Glis was very fraper. She had dermarpen Farle’s marsden. She did not talp a giberter for him. So, she contanted to plimp a marsden blinky for him. She had just sparved the binky when he gibbed in the gorger.

“Clorsty marsden!” she bolfed.

“That’a a crouistish marsden blinky.” boffed Farle, “but my marsden is on Stansan. Agsan is Kelsan.”

“In that ruspen,” boffed Glis.
“İ won’t wank you your giberter until Stansan.”

1. Why was Glis Fraper?
2. What did Glis plimp?
3. Who jibbed the gorger when Glis sparved the blinky?
4. Why didn’t Glis wank Farfle his giberter?
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Glis was very happy. She had received Farle’s birthday (invitation). She did not have a present for him. So, she wanted to make a birthday card for him. She had just finished the card when he came in the room.

“Happy birthday!” she yelled.

“That’s a beautiful birthday card.” replied Farle, “but my birthday is on Sunday.

“Today is Tuesday.”

“Is that right,” replied Glis. “I won’t give you your card until Sunday.”

1. Why was Glis happy?
2. What did Glis make?
3. What was the reply when Glis showed the card?
4. Why didn’t Glis give Farfle his card?
Jim Allan’s Tag lines  (TSBVI)

- Changing a tire on Mars.
- Astronaut in spacesuit in left foreground looking at a small hand-held device. Fingers of gloves are covered in orange dust, orange smudges on suit.
- NASA 6 wheeled vehicle in the middle of the picture. Vehicle's front left wheel is lying on the ground in front of the vehicle. The vehicle has 3 manipulator arms, one with a 2 prong claw, one with a drill(?), and one with a camera(?). There is also an antenna mounted on the vehicle.
- Near the wheel on the ground, another space suited astronaut is kneeling holding a replacement part for the vehicle.

The description really depends on the purpose of the picture. The purpose determines what you focus on to describe and leave out the other stuff.
**Recomendations / Premises**

Use high contrast
- lighter text – **black / white** or **white / black**
- Stay away from default **blue / yellow, red or blue / black**

Use SIMPLE fonts – sans serifs
- **Arial, Tahoma, Comic Sans, Verdana, Microsoft Sans Serif**
- vs. **Times Roman, Bookman**

Use descriptive text links for each image/figure included in any web site (508 compliance)

Use color images / dynamic graphics whenever possible

Include an autoloading software component and a read-me file for each CD (instructions)
- Use descriptive file names that indicate file/folder contents (NOT numbers or letters)

**THINK of the USER!**
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THINK of the USER!
Awareness

- Simulation
Introduction to Simulators
Time to form groups!

- Rows 1, 3, 5 = Engineers
- Rows 2, 4, 6 = Astronauts
- Row 7 = please work with row 1
Instructions

• Select **one** person to be:
  – Blind/Visually impaired
  – Deaf/Hearing impaired
  – Mobility impaired
  – Nonverbal (NV)
  – Able-bodied

  – One person as CAPCOM
Apollo 13 materials

Blue cup
Green cup
Dixie cup
Baggie
Sock
Brown bag
Cupcake tin
Square tin
Clear lid
Tin foil
Red bowl
Engineers – design/build filter

Astronauts – create a map
IDEAS EDUCATION WORKSHOP

(INNOVATIVE DIFFERENTIATED EXPLORATION ACTIVITIES IN SPACE SCIENCE)

In this interactive professional development, experts from NASA and the Special Education community will familiarize educators of exceptional students with the wide variety of standards-based space science education materials that are available from NASA. Presenters will share their knowledge and professional experiences through short presentations, interactive activities, and group discussions. Participants are encouraged to simulate a variety of disabilities using visual impairment goggles, hearing impairment simulators, and other materials and devices to simulate physical disabilities. Discussion regarding learning disabilities, for example ADD and ADHD, are held throughout the workshop.

To register, visit: https://tinyurl.com/trekideas

JOIN US FOR:
- Team Building Activities
- Introduction to Simulators
- NASA Next Gen STEM Activities
- STEM Career Showcase Presentations

North Carolina Museum of Natural Sciences

Professional Development Workshop

10/14-15/2019