



SKILLSET



MINDSET

HIGH TECH.
HIGH TOUCH.
HIGHER PURPOSE.



TryEngineering STEM Grant Update, 10 Sep 2025

Empowering Tomorrow's Innovators through STEAM-TEAMS Challenge (for STEAM Multi-Year Mentorship Pipeline)

DR. JOHN SANTIAGO, John.Santiago@ieee.org

2025 IEEE STEM Champion

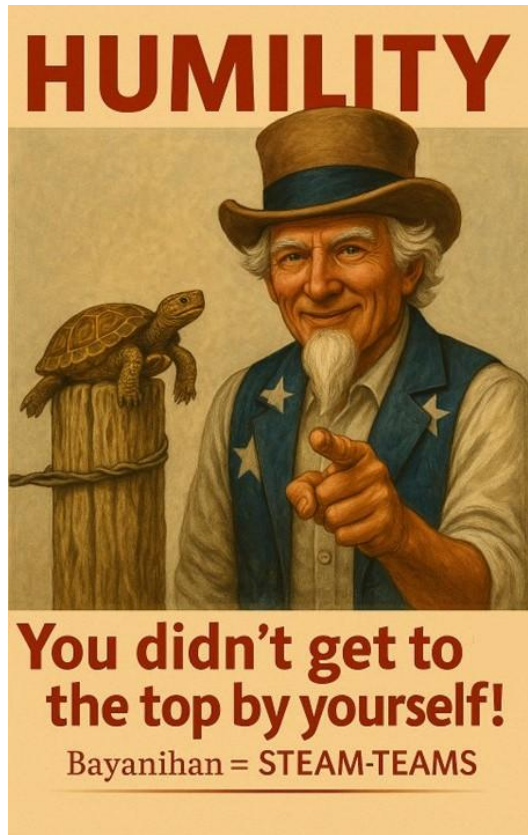
Region 5 Educational Activities Coordinator (REAC)

<https://r5.ieee.org/pikespeak/pyramid>

What Are Your Top 3 Favorite Animals

Animals and Character Values

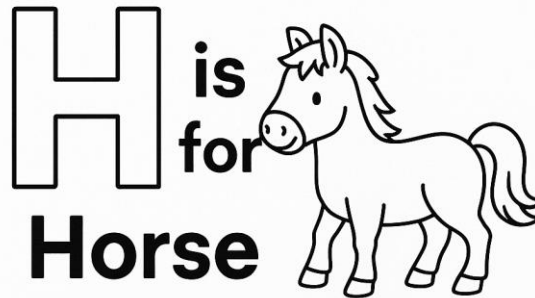
- ▶ What are your top 3 favorite animals
- ▶ Explain why are they your favorite
- ▶ What value do you appreciate about them?
- ▶ Create a story about illustrating that value
- ▶ Make story up or use ChatGPT



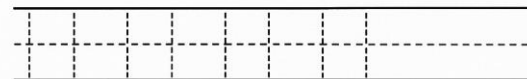
Handout Example of Using AI

Prompt

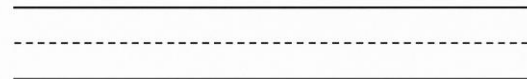
- ▶ Create a kids' worksheet for learning the alphabet. The worksheet should focus on the uppercase letter 'H'. Include:
 - ▶ A large bold uppercase 'H' on the left.
 - ▶ The words 'H is for' beside it.
 - ▶ A simple cartoon drawing of a Horse (black-and-white outline, kid-friendly).
 - ▶ A section labeled 'Trace the Letter' with dashed lines to trace several 'H's.
 - ▶ A section labeled 'Write the Letter' with blank lines for free writing.
 - ▶ A 'Teaching Moment' caption under the drawing that says: **'The horse teaches us strength and teamwork. Horses work hard and help others.'**
 - ▶ A small reflection box with the guiding question: **'How can you be a good helper today?'**
- ▶ Design style: black-and-white outline, simple, clean, and kid-friendly so children can color it in. Suitable for printing.



Trace the Letter



Write the Letter



Teaching Moment

The horse teaches us strength and teamwork. Horses work hard and help others.

How can you be a good helper today?

Example Story Telling

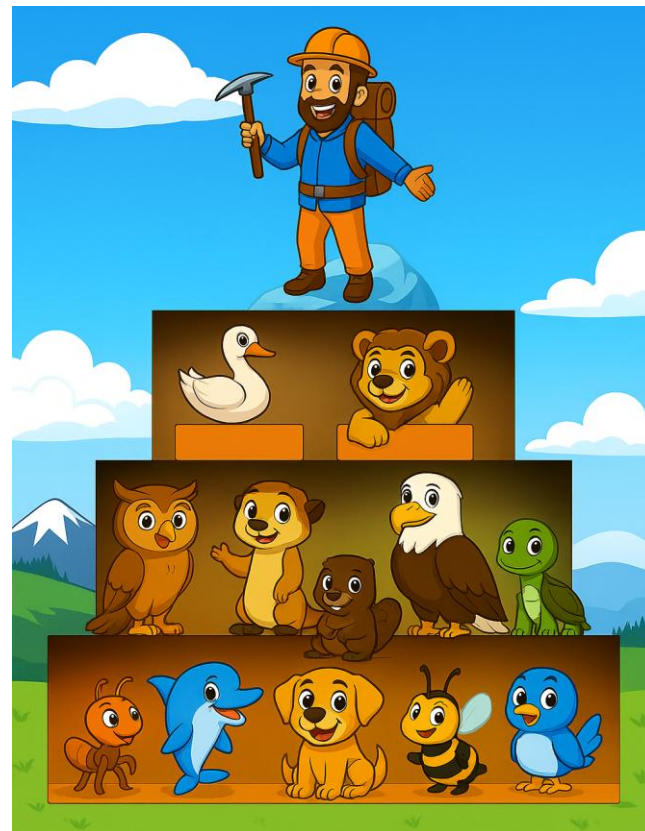
- ▶ Use errors in AI to complete or fill in the blank [bragging in this example]
- ▶ Who do you appreciate?
- ▶ Titles or Folks with none?



Mindset (Home Family Activity)

Animals as Symbols of Human Values

- ▶ Throughout cultures, animals are often linked with values:
- ▶ **Eagle → Freedom / Vision** (U.S. national symbol, clear sight, soaring high).
- ▶ **Lion → Courage / Strength** (leadership, confidence, “king of the jungle”).
- ▶ **Owl → Wisdom / Knowledge** (watchful, contemplative).
- ▶ **Dog → Loyalty / Friendship** (companionship, faithfulness).
- ▶ **Bee → Industry / Cooperation** (teamwork, productivity, community).
- ▶ **Dolphin → Communication / Joy** (playfulness, intelligence, social bonding).
- ▶ **Elephant → Memory / Family** (heritage, long-term wisdom, care for community).
- ▶ **Hummingbird → Resilience / Agility** (adaptability, thriving despite size).



Backup Slides

UNITY



WE SUPERSEDES ME

Bayanihan - Team Spirit

**YOU'VE GOT THE TALENT.
NOW PROTECT IT.**



FRIENDSHIP

TAKE CARE OF YOUR RELATIONSHIPS

HUMILITY



**You didn't get to
the top by yourself!**

Bayanihan = STEAM-TEAMS

Reference Links, Proof of Work

Mini Websites (webpage with tabs)

- ▶ <https://r5.ieee.org/news>
- ▶ <https://r5.ieee.org/pikespeak/strategic-plan>
- ▶ <https://r5.ieee.org/pikespeak/steam-teams-notes>
- ▶ <https://r5.ieee.org/pikespeak/squishy-circuits>
- ▶ <https://r5.ieee.org/pikespeak/section-meeting-minutes>
- ▶ <https://r5.ieee.org/pikespeak/2025-rms-asee-conference/>
 - Igniting Entrepreneurial Mindsets through AI-Assisted STEAM Content Creation Using Camtasia
- ▶ <https://r5.ieee.org/pikespeak/2024-ieee-education-week/>
- ▶ <https://r5.ieee.org/pikespeak/2025-ieee-education-week-ai/>
- ▶ <https://r5.ieee.org/pikespeak/pyramid-os-r5-pps/>



Reference Links (continued), Proof-of-Work

Mini-Websites (webpage with tabs)

- ▶ [STEM Demos | IEEE Pikes Peak Section](https://r5.ieee.org/pikespeak/stem-demos)
(<https://r5.ieee.org/pikespeak/stem-demos>)
- ▶ <https://r5.ieee.org/pikespeak/phet-demos>
- ▶ <https://r5.ieee.org/pikespeak/phet-demos-math>
- ▶ <https://r5.ieee.org/pikespeak/facsc/>
- ▶ <https://r5.ieee.org/pikespeak/uccs/>
- ▶ <https://r5.ieee.org/pikespeak/carnival-day>
- ▶ <https://r5.ieee.org/pikespeak/young-professional>
- ▶ <https://r5.ieee.org/pikespeak/stories-of-Imag-members/>

