2025 Civil Air Patrol National ACE Schoolwide STEM Specialist of the Year:

Jennifer Stout, STEM Teacher

Beehive Science and Technology Academy

Sandy, Utah

Jennifer Stout is recognized for her work as the K-5th grade STEM teacher at her school who integrated the CAP ACE program for every grade level. She gave pre-tests to all students, taught all 22 ACE lessons per grade level, scored each student's ACE work and assigned grades, and then submitted the post-tests to all students before presenting each student with the end-of-year ACE certificate. In total, she taught 123 ACE lessons while some kindergarten parents assisted by teaching kindergarten lessons and the P.E. teacher by teaching the physical fitness lessons. This is an amazing feat that Ms Stout was able to introduce the entire ACE curricula to her school's almost 500 elementary students.

In Jennifer's words:

I have a deep passion for teaching STEM and love challenging students through engaging, hands-on activities. My goal is to inspire curiosity while making complex concepts fun and accessible. Using your outstanding lessons, I've taught students about the forces of flight through exciting projects such as building and flying planes, kites, parachutes, balloon rockets and lifters, and various other types of rockets.

To support students in memorizing the parts of an airplane and the four forces of flight, I created a Blooket—an interactive, multiple-choice video game. The students were so immersed in the game, they didn't even realize they were learning vocabulary! We explored air pressure and how it relates to both flight and water. We conducted experiments with the wind to observe its impact on flight, and studied space science including planets, stars, and moon phases. Students even designed their own space stations and built them using Legos.

I make it a point to support students of all learning levels while engaging with ACE lessons. For some, I add visuals and real-world examples; for others, I offer extension activities to deepen and challenge their understanding. This inclusive approach ensures that no student feels left behind or bored.

Our STEM work also incorporates engineering and scientific practices: brainstorming, defining problems, designing models and testing them, constructing explanations, and developing solutions.

Your lessons have been a foundation for cross-curricular connections as well. We've integrated math and computational thinking to estimate star counts and planetary distances, convert decimals, and calculate averages. I taught them algebra concepts as they graphed the forces of flight.

In a fun literacy activity, we used frisbees to teach the order of the alphabet, with students working together to build teamwork skills while creating the alphabet with their individual letters.

To help visualize concepts, I designed worksheets for drawing the universe to scale, organizing and describing rocket launch stages, and comparing the forces of flight using Venn diagrams. I even created posters around the classroom connecting types of clouds to emotions to reinforce science in everyday life.

Presentation skills have also been a focus. Students worked in teams to create, model, and present their ideas for space spin-offs and space station designs - and presented their new individual star constellations.

In collaboration with our PE teacher, I printed the physical fitness lessons, which he taught to every grade level. I've tracked the progress of all 19 classes—spanning from kindergarten to 5th grade— on the ACE Class Progress Charts and in my grade book.

I've taken on the ACE Program not just for one class, but for all 19, adapting it for diverse learners across all backgrounds. I'm committed to bringing the wonder of air and space to every student, regardless of race, gender, or economic level. I believe this dedication and inclusive approach make me a strong candidate for the ACE Teacher of the Year Award.

Jennifer Stout's students participating in ACE lessons…

Bernoulli Bubbles

Experiencing Forces of Flight with ACE Propeller Planes

Learning that air takes space with the Dunked Napkin Lesson

Presenting Personal Constellations

Learning About Flight and the Alphabet

Creating Their Own Space Stations with Legos

Landing on the Planets with ACE Finger Rockets

Chemical Reactions & Laws of Motion with Fizzy Rockets

Kinetic & Potential Energy with the Rocket Planez

Letter of Recommendation/Nomination

BEEHIVE
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April 17, 2025

To Whom It May Concern,

It is with great enthusiasm that I recommend Jennifer Stout for the ACE (Aerospace Connections in Education) Teacher of the Year Award. As the Elementary Principal at Beehive Academy, I have had the distinct pleasure of observing Jennifer's exceptional work in the classroom, particularly through her engaging and impactful implementation of the ACE curriculum.

Jennifer is currently leading her students through the ACE program, delivering dynamic lessons on the forces of flight, space exploration, weather, and air pressure—all grounded in real-world applications. Her instruction goes far beyond the textbook. When I observed her classroom, students were immersed in hands-on investigations and lively discussions that brought aerospace science to life in ways that were both age-appropriate and intellectually rich.

What makes Jennifer truly stand out is her ability to take complex STEM concepts and make them accessible, exciting, and meaningful for every student. She brings aerospace topics into the classroom with contagious enthusiasm, blending scientific rigor with creativity. Her students are not only learning about the science of flight and space—they're developing the critical thinking and problem-solving skills that are essential for future innovators.

In addition to her classroom excellence, Jennifer is a driving force behind our school's STEM culture. She leads Beehive Academy's Elementary Annual STEM Expo, an event that brings together over a thousand community members. Jennifer ensures that students—from kindergarten to 5th grade—are confidently prepared to present and explain their projects, many of which are inspired by the principles taught through ACE.

Jennifer's dedication to STEM education and her inspiring use of the ACE curriculum make her a natural fit for this recognition. Her students are excited to learn, empowered to explore, and equipped to dream big—all because of her thoughtful and passionate teaching.

I wholeheartedly endorse Jennifer Stout for the ACE Teacher of the Year Award. She exemplifies everything this honor represents, and I am confident she will continue to elevate aerospace education for years to come.

Sincerely,
Ms. Vickie Peterson, M.Ed.
Elementary Principal, Beehive Academy

Lesson Helps I Created

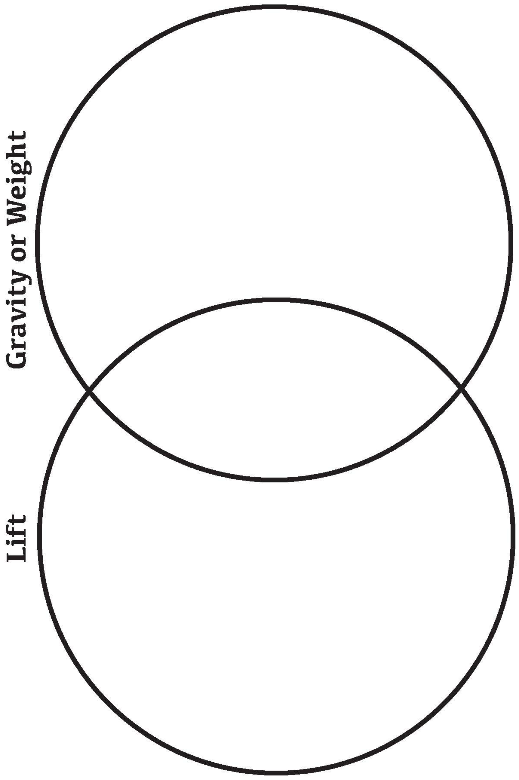
Forces of Flight

Name: ____________________

Phrase Bank

- force needed to make airplanes fly
- works with drag to slow down an aircraft and/or bring it to a stop
- must work with thrust to overcome gravity & drag
- needed to make airplanes fly

- works against lift
- direction is down
- works against gravity
- direction is up
- force



Put the Space Shuttle Launch in Order

Name: ____________________

Description: ______ Description: ______ Description: ______ Description: ______

Description: ______ Description: ______ Description: ______ Description: ______

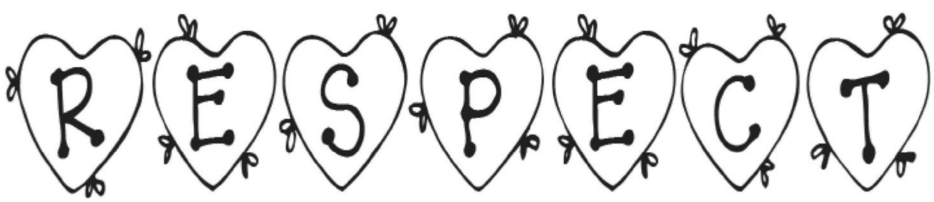
Name: ______________________________

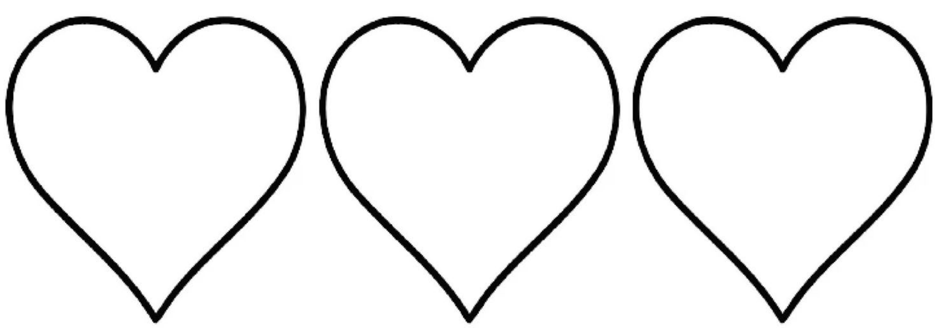
Create the Clouds with Cotton

cirrus	cumulus	cumulonimbus
stratus	stratocumulus	alto cumulus

Name: ____

Draw people or things you respect in the hearts.





~ Jennifer Stout

~ Jennifer Stout with Fran Bradshaw,
Utah State AFA President
Jennifer Receiving the 2025 AFA
Chapter Teacher of the Year Award

BEEHIVE
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WOW, Jennifer! You are an amazing educator!
CAP thanks YOU for your stellar work!

CONGRATULATIONS, JENNIFER STOUT,
2025 NATIONAL ACE STEM SPECIALIST OF THE YEAR!

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