Denise Miller National 4-H Innovator Award

**Narrative**

Abbeville County 4-H has a ten-plus year history of utilizing ‘Ag in the Classroom’ that pairs literacy with agricultural science and agricultural accurate information. With this success, a new idea came about by adding literacy to science-based learning, or STEM. With STEM as one of the core 4-H programs, creating activities that engage youth in problem solving, critical thinking and exploring engineering and technology can make learning more fun! Adding literacy components to a STEM project creates a well-rounded classroom project that engages students in reading, math, science, and critical life skills, all at a grade appropriate level meeting educational standard. This multi-standard concept also was important in working to increase literacy and combatting average to below average statistics for the school district.

After working with reading coaches and sharing 4-H school enrichment programs, the book “How to Catch an Elf” captured my attention and I went back to the educators with an idea of creating a STEM holiday themed elf trap shenanigan adventure! This was a way to have 4-H as a resource for schoolteachers and teach students skills such as engineering design, critical thinking, re-telling main ideas in literacy, creative arts and self-expression, and problem solving.

Abbeville County 4-H Program became the innovator of the science literacy project by creating student worksheets and designing special kits for each classroom. There were 19 kits packed with engineering and art supplies to allow the students the freedom to create their own unique plan and design. Each student received the same size of cardboard box, and each kit had the same basic supplies to choose from. As a result, there were 314 different elf traps, 314 successful student engineers, and 19 enthusiastic teachers who enjoyed the innovative project and partnership with 4-H!

The project was posted on the school and county 4-H social media pages, and the teachers responded with their experiences…

A. Williams Post:

“This teacher doesn’t always look forward to party days because it’s always chaotic and all of us have lots of extra energy. BUT TODAY was wonderful! Jenny Mountford and Denise planned a STEM activity for EVERY STUDENT at Westwood. After reading the book, How to Catch an Elf, the students were given supplies and challenged to make an elf trap. My kiddos worked so hard and loved every minute of the challenge. Their ideas blew me away! I hadn’t seen my kids focus and work that much! They were dedicated! It was certainly a wonderful day.”

K. Hughes:

“I don’t think there was a single student or teacher in the building that didn’t have a wonderful, exciting day!! I saw lots of future engineers in the making!! I love Westwood and our awesome leader who allows us to have fun while learning!!”

S. Stanley:

“This was the BEST day ever. Today I will go home worn out but it was well worth it to see the engagement that students had with this literacy based activity. So glad we could provide it school wide because of the support of Jenny Mountford. I am so thankful for this resource.”

J. Harper:

“THEY LOVED IT!!! So thankful to you and Jenny for doing this for us!!!”

D. Schweikart:

I just loved watching them and talking to them about their work. Just love to see the problem solving and creativity.” “The teachers did a great job of just watching it happen. The teachers were jumping in with extra supplies and helping with problem solving. We are better together.”

Impact:

There were 15 educators from the December 2021 Elf Trap 4-H Activity that provided feedback via 4-H survey tool.

* 15 educators are likely to use the 4-H project again
* 15 educators reported students gained knowledge and enjoyed the project
* 12 educators reported the project “excellent” as meeting SC Educational Standards; 2 reported ‘fair’; 1 did not report
* 15 reported “very good” for overall educator instructions and student worksheet design

The entire Westwood Elementary School, grades 3-5, including SPED, participated in this 4-H Elf Trap project. There were 314 students reported completing the project in 19 classrooms. The entire project was supported by the school staff, including the principal and reading coaches.

Innovation:

“How to Catch an Elf” 4-H School Enrichment Classroom building kits and student worksheets

4-H created literacy activities for teachers that paired with the story and STEM project to create a well-rounded project that met educational standards (ELA, Math & Science), plus character building and life skills.

What’s included?

Cardboard box for each trap, plus a craft supplies kit to engineer the “trap” feature for catching the elf. Craft supplies included: straws, pencils, skewers, craft sticks, tape, yarn, stickers, spoons, candy, bells, and decorations such as gems, pompoms and feathers.

Replication Proposed Plan:

* Collaborate with Educators and make a plan for project (suggested for grades 3-5)
* Perform a reading of the book “How to Catch an Elf” by Adam Wallace and Andy Elkerton to the students.
* Ask each teacher to have students re-tell the story and discuss the book amongst the classrooms.
* Provide each student or group supplies to build elf traps. Supply kits can vary based on materials available. Elf Traps can be individual or group projects.
* Allow students 10+ minutes to work on a paper design for their trap.
* Allow students access to elf trap building supplies, and 30+ minutes for construction, engineering and testing.
* Provide student worksheets for students to complete the literacy/writing activities.
* Educators can use the 4-H provided worksheets as classroom grades or to meet educational standards. (Letter of Persuasion, “How To…” Ordering, Prototype Sketch”

The idea and worksheets can be shared by other county 4-H programs that desire to partner with youth groups, or classrooms for literacy STEM projects that are a fun holiday theme, such as “How to Catch an Elf”!

The 4-H literacy projects include a children's book and writing activities. With this project the students will use their imagination and sketch the perfect elf trap, then complete a writing prompt related to the theme. Making sure the elf trap engineers have plenty of supplies – fill kits with crafting supplies.

With this innovative idea to fulfill the need to increase literacy, science inquiry and have fun while learning, 4-H educators have the flexibility to use different resources for building (if needed) yet meet the same standards and re-enforce learning.

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