Colorado State University Extension

4-H STEM Survey

Please tell us how much you agree or disagree that being in this 4-H program has changed how you think about STEM and use STEM. (Check one box ☒ in each row.)

	Strongly Agree	***Agree***	***Disagree***	***Strongly Disagree***
I liked doing the activities in this STEM program.	☐	☐	☐	☐
I want to learn more about STEM.	☐	☐	☐	☐
I like STEM.	☐	☐	☐	☐
I think STEM is useful in my everyday life.	☐	☐	☐	☐
I know more about (*insert STEM content*) now.	☐	☐	☐	☐
I know more about careers and jobs related to STEM.	☐	☐	☐	☐
I can … *insert STEM ability question(s)*	☐	☐	☐	☐
I can … *insert STEM ability question(s)*	☐	☐	☐	☐
I can … *insert 21st century skill question(s)*	☐	☐	☐	☐
I can … *insert 21st century skill question(s)*	☐	☐	☐	☐
I used something I learned in this program outside of 4-H.	☐	☐	☐	☐
What did you do?				

STEM Ability Survey Questions

Customize the end-of-program survey to the STEM Ability that your program focused on. Copy and paste the appropriate question(s) into the survey where indicated.

STEM Ability	Survey Question
Build/Construct	I can build something by putting materials together.
Categorize/Order/Classify	I can put objects or events in groups or classes.
Collaborate	I can work with others.
Collect Data	I can record information about objects and events in an organized way.
Communicate/Demonstrate	I can communicate information to another person.
Compare/Contrast	I can identify and describe similarities and differences.
Design Solutions	I can create a written plan that identifies a problem to be solved and the needs of the solution (time, money, tools, materials).
Develop Solutions	I can create an organized plan to develop many possible solutions to solve a problem.
Draw/Design	I can use graphics or images to represent a plan of action for a process or an idea for something tangible like a building.
Evaluate	I can examine and judge data.
Hypothesize	I can make an educated guess about how things work.
Invent/Implement Solutions	I can create and apply a solution to solve a problem.
Infer	I can explain an observation based on my previous experience.
Interpret/Analyze/Reason	I can find a pattern within a collection of data.
Measure	I can use a measuring tool to find a numerical value (such as weight, height, length, volume).
Model/Graph/Use Numbers	I can create a graphic, diagram, or chart that will explain information to others.
Observe	I can use my senses to get information about myself or the world around me.
Optimize	I can make the best or most of a condition.
Organize/Order/Classify	I can gather objects or ideas and arrange them in a way that makes sense.
Plan Investigations	I can use the Scientific Method.
Predict	I can foresee future observations based on previously known information.
Problem Solve	I can think through a problem and possible solutions to find the best way to handle it.
Question	I can ask a question about something I observe that can be answered by collecting data.
Redesign	I can revise a drawing, sketch or plan based on new information.
Research a Problem	I can explore an issue to find and understanding its facts.
State a Problem	I can assess a need in order to define the problem to be solved.
Summarize	I can make a brief statement giving the main points or substance of a matter.
Test	I can conduct an experiment to find if a hypothesis can be supported.
Troubleshoot	I can find the source of a problem so that it can be solved.
Use Tools	I can use instruments to understand science.

21st Century Skills Survey Questions

Customize the end-of-program survey to the 21st Century Skills that your program focused on. Copy and paste the appropriate question(s) into the survey where indicated.

21st Century Skill	Survey Question
Critical Thinking (thinking deeply; thinking differently) Students analyze information, solve problems, and create new knowledge	Using technology, I can identify real issues for my school, community, or world and state real questions to explore.
	Using technology, I can plan and manage activities for completing a project or solving a problem.
	Using technology, I can collect and analyze data to accomplish a variety of tasks and to solve problems.
	Using technology, I can explore an issue from many sides and suggest more than one possible solution.
Collaboration (working together, learning together) Students communicate and work collaboratively to support learning and contribute to the learning of others	I can work with others to develop technology-based presentations or exhibits.
	I can communicate information and ideas to others using a variety of formats.
	I can use technology to interact with people from other cultures, communities, or countries.
	I can contribute to a team project that explores and shares specific information.
Invention (creating solutions) Students assess real-world problems and invent new solutions. A focus on creativity is essential to prepare students for the future	I can use my knowledge to think of new ideas to solve challenges.
	I can express myself in creative ways.
	I can use models to explain results.
	I can see trends and make guesses about future results based on information I've gathered.
Self Direction (own your learning) Students set goals, organize their assignments and manage their academic time to develop a strong, balanced work ethic.	I use technology in safe, legal and responsible ways.
	I can select and use technology to improve how I communicate, collaborate, be productive, and achieve goals.
	I can describe how I select and use technology in my personal learning and for school projects.
	I can identify and talk about the effects of technology on individuals, society, and the world.
Information Literacy (untangling the web) Students use tools to gather and evaluate information to determine validity and reliability.	I can plan the steps I will take to investigate a question.
	I can use technology to find and organize important and reliable information from a variety of sources.
	I can compare and contrast the effectiveness of two or more information resources and select the best one to accomplish an assigned task.
	I can use technology to process data and report results.
	I can demonstrate that I understand and can use technology to complete learning tasks.
	I can select and use appropriate technology applications for use in my learning.
	I can troubleshoot common computer problems.
	I can apply what I know about technology to new technologies and situations.