



UNIVERSITY OF ILLINOIS
EXTENSION

Getting Excited about Science!

4-H members in robotics, gardening, biotechnology, filmmaking and health/nutrition project areas have the opportunity to learn and practice a wide range of science skills. This opportunity both increases individual mastery and prepares 4-H members for a wide range of future careers.

Science, Engineering & Technology Abilities	Examples of Activities
Observing • Observe • Compare	
Questioning • Question • State a problem	
Hypothesizing • Hypothesize • Troubleshoot (can also be a planning skill)	
Predicting • Predict • Test (a prediction can be used to test a hypothesis)	
Communicating • Model/Graph/Use Numbers • Summarize/Relate • Demonstrate/Communicate to Others • Collaborate (can also be planning if it involves working together to solve a problem)	
Planning and Investigating • Plan an investigation • Use Tools • Develop Solutions • Design Solutions • Problem Solve • Measure • Draw/Design (can also be a communication skill) • Build/Construct • Collect Data • Invent/Implement Solutions • Redesign • Optimize (can also be interpreting when related to how the data points to the best solution or design)	
Interpreting • Categorize/Order/Classify • Organize • Infer • Evaluate • Research a Problem • Interpret/Analyze/Reason • Optimize (can also be planning if it involves planning what to do to find out the best design or solution)	