Chain Reaction
Grade Band Elementary

Physical Science	**Next Generation Science Standards**
3-PS2-1	Plan and conduct investigations on effects of balanced/unbalanced forces on motion.
3-PS2-2	Make observations and measurements to provide evidence of force effects.
4-PS3-4	Apply scientific ideas to design, test, and refine a device that converts energy to motion.
5-PS2-1	Use evidence to explain how gravity affects objects.
Engineering Design	
K-2 3-5-ETS1-1	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
K-2 3-5-ETS1-2	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints.
K-2 3-5-ETS1-3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Reading	**English Language Arts (Reading & Writing)**
RI.2.3 to RI.5.3	Describe relationships between steps/events in a process.
SL.2.1 to SL.5.1	Participate in collaborative discussions and decision-making.
SL.3.4 to SL.5.4	Report on a topic or explain how a system works using evidence..
Writing	

W.3.2 to W.5.2	Write informative texts to explain how the model works.
W.2.7 to W.5.7	Conduct short research and experiments; gather and record observations.
Measurement and Data	**Mathematics**
2.MD.10 to 5.MD.2	Collect and analyze data (e.g., time, angle, speed).
4.MD.5 to 5.MD.3-5	Volume/mass of parts if relevant to the model's movement.
Operations & Algebraic Thinking	
3.OA.3 to 5.OA.3	Use Patterns and operations to model motor sequences.
Mathematical Practice Standards	**Modeling & Problem Solving**
MP2	Reason quantitatively about garden space and sensor data.
MP4	Model a real-world problem using math.
MP5	Use appropriate tools (e.g., sensors, measurement tools, graphing tools).
Computer Science	**Missouri K-5 Draft Standards**
DA.K-5.1	Collect and represent data in various ways.
AP.K-5.2	Develop programs with sequences and simple loops to solve problems.
AP.K-5.3	Break down complex tasks into smaller steps (motor 1 to motor 2 to motor 3).
AP.K-5.4	Test and refine programs based on feedback or performance.
IC.K-5.1	Understand how computing impacts daily life and the environment.

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