



How to Catch a Mermaid
Grade Band Elementary

NGSS	Grade	Next Generation Science Standards
K-2-ETS1-1	K-2	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem.
K-2-ETS1-2	K-2	Develop and test multiple solutions.
K-2-ETS1-3	K-2	Analyze data from tests of objects
3-5-ETS1-1	3-5	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
3-5-ETS1-2	3-5	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints.
3-5-ETS1-3	3-5	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.

Science	Missouri Learning Standards
1.PS4.4	Use tools and materials to design a device that uses light or sound to solve a problem.
3.PS2.4	Define a simple design problem that can be solved by applying scientific ideas about magnets.
4.PS3.4	Apply scientific ideas to design, test, and refine a device that converts energy (e.g., motor with sensor).
Reading	English Language Arts (Reading & Writing)
R.1.1.A to R.5.1.A	Use key details to explain the central message and supporting ideas.
R.1.2.A to R.5.2.A	Describe characters, settings, events, and sequence using test evidence.
R.1.3.A to R.5.3.A	Compare and contrast elements of stories or similar themes.

Writing	
W.1.3 to W.5.3	Write narratives to recount real or imagined events with clear sequences, characters, and details.
W.2.5 to W.5.5	With guidance, revise and edit writing for clarity purpose.
W.3.6 to W.5.6	Use digital tools to produce and publish writing.
Measurement and Data	Mathematics
1.MD.2 to 5.MD.5	Measure length, weight, angles, area, and volume (dependent on grade level).
2.MD.10 to 5.MD.2	Represent and interpret data (e.g., charts of trap success, sensor data).
4.MD.5-7	Understand angles and how to measure them (useful for door mechanics or trap hinges).
Mathematical Practice Standards	Modeling & Problem Solving
MP1	Make sense of problems and persevere in solving them.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend precision (measurement, coding logic).
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	Decompose (break down) problems into smaller, manageable parts.
AP.K-5.4	Test and refine programs using data and debugging.
IC.K-5.1	Communicate how computing can affect personal and global impact.

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