

2nd Grade MakerEd Curriculum

Year-Long Thematic Focus: Motion

Guiding Questions:

- What are the 4 main types of mechanical movement?
- What makes something move?
- What makes something stop moving?
- What are actions?
- What are reactions?
- What is gravity?
- What are simple machines?
- What are simple machines?
- How do I dream up a moving machine?
- How can I plan the building of a moving machine?
- How can I turn my dream moving machine into a reality?
- How do I know that my project was successful?
- How can share I my project, how I made it, and what I learned?

Week	Topic
1	Journal Making & Intro to Motion
2	Overview of 4 Types of Mechanical Motion Explore types of mechanical motion with toys - rotary, oscillating, reciprocating, linear
3	Exploring Linear Motion - Marble Boards
4	Exploring Linear Motion - paper airplanes
5	Exploring Linear Motion - balloon rockets
6	Exploring Linear Motion - DIY Car Distance Challenge
7	Exploring Linear Motion - DIY Car Distance Challenge
8	Exploring Linear Motion - DIY Car Distance Challenge
9	Rotary Motion - Intro to axles, axis, and torque
10	Rotary Motion - gears

11	Rotary Motion - fans & pinwheels
12	Rotary Motion - screws & spirals
13	Rotary Motion - tops
14	Rotary Motion - tops
15	Rotary Motion - tops
16	Oscillating Motion Intro - vibration, fixed points
17	Oscillating Motion - pendulums and swings
18	Oscillating Motion - DIY String Instruments
19	Oscillating Motion - DIY String Instruments
20	Oscillating Motion - DIY String Instruments
21	Reciprocating Motion Intro - cranks, stroke, and cams
22	Reciprocating Motion - Automata
23	Reciprocating Motion - Automata
24	Reciprocating Motion - Automata
25	Reciprocating Motion - Automata
26	Magnets & Motion
27	Magnets & Motion
28	Simple Machines Intro 1 - wedge, incline plane, lever
29	Simple Machines Intro 2 - wheels, pulleys, screws
30	Simple Machines - DIY Pizza Box Pinball
31	Simple Machines - DIY Pizza Box Pinball
32	Simple Machines - DIY Pizza Box Pinball
33	Simple Machines - DIY Pizza Box Pinball
34	Simple Machines - DIY Pizza Box Pinball
35	Simple Machines - DIY Pizza Box Pinball

