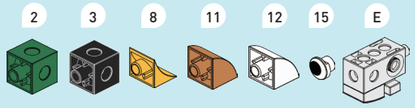
Model 3 Green-Headed Duck

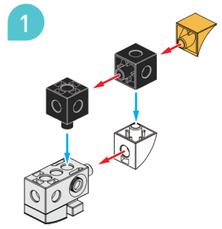
Jasmine, the green-headed duck, sets off on a global journey to fulfill her dreams.

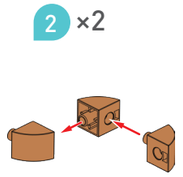
Jasmine enjoys swimming, displaying great agility in the water. However, walking on land requires the assistance of her wings for balance. Inspired by friends Freddie and Kevin, who embrace their unique abilities, Jasmine discovers her own talents. Exercising her wings, she fulfills her dream of flying, embarking on global adventures. Through her journey, Jasmine learns the importance of unlocking potential and chasing dreams.

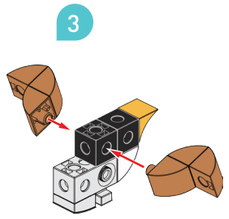
Parts List

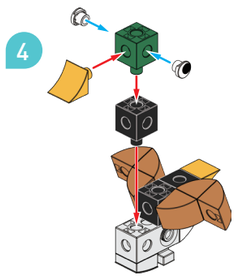


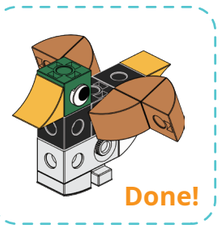
Order of assembly

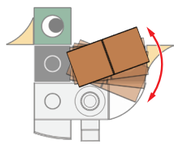












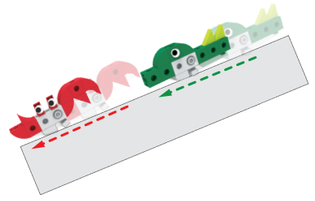
This duck model has a higher center of gravity, making it challenging to walk down.

Try adjusting the wing angles to make it walk better!

Challenge

Animals relay down a hill

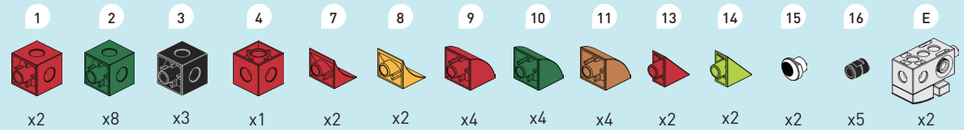
Find a longer slope and let the animals relay downhill.



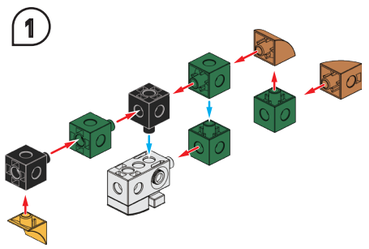
Model 4 Bipedal Creature

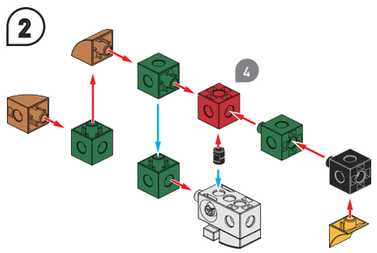
This model needs the first three sets of model components to assemble.

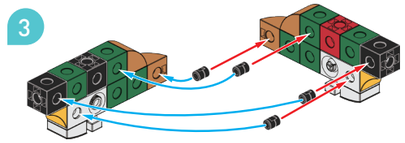
Parts List

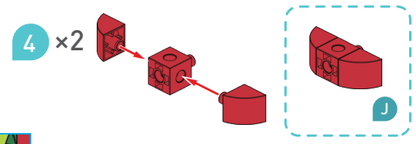


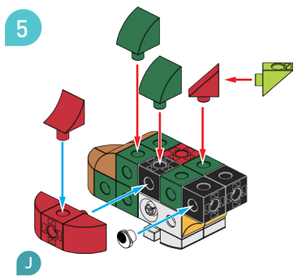
Order of assembly

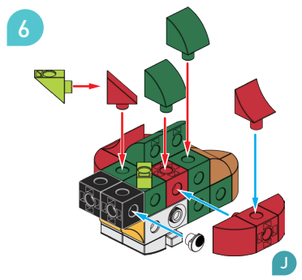


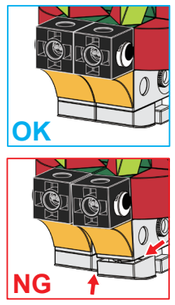


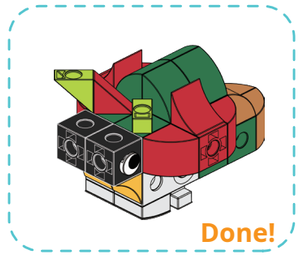










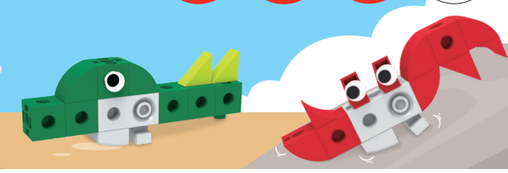


Gigo | STORY LINE | # 7462

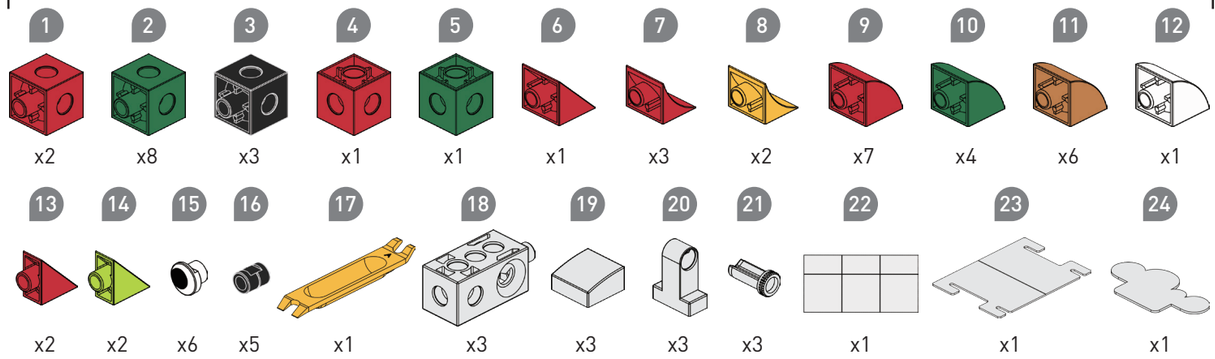
3+ AGES | 70 PIECES | 4 MODELS

STEAM

RAMP WALKER



What's inside your experiment kit



✓	NO.	Description	Qty.	Item No.
◯	1	B-CUBE	2	880-W10-A1R
◯	2	B-CUBE	8	880-W10-A1G
◯	3	B-CUBE	3	880-W10-A1D
◯	4	B-6 HOLE CUBE	1	880-W10-N2R
◯	5	B-6 HOLE CUBE	1	880-W10-N2G
◯	6	B-TRIANGLE	1	880-W10-S1R
◯	7	B-CONCAVE	3	880-W10-D1R
◯	8	B-CONCAVE	2	880-W10-D1Y
◯	9	B-CONVEX	7	880-W10-R1R
◯	10	B-CONVEX	4	880-W10-R1G
◯	11	B-CONVEX	6	880-W10-R1T1
◯	12	B-CONVEX	1	880-W10-R1W

✓	NO.	Description	Qty.	Item No.
◯	13	B-FLAT TRIANGLE	2	7128-W10-A2R
◯	14	B-FLAT TRIANGLE	2	7128-W10-A2G
◯	15	B-EYE-2	6	7128-W22-2
◯	16	B-SHORT PEG	5	7344-W10-C2D
◯	17	B-PEG REMOVER	1	7061-W10-B1Y
◯	18	B-RAMP WALK CUBE	3	7462-W10-A1S
◯	19	B-RAMP WALK LEG A	3	7462-W10-A2S
◯	20	B-RAMP WALK LEG B	3	7462-W10-A3S
◯	21	B-RAMP WALK AXLE	3	7462-W10-A4S
◯	22	P-ANTI-SLIP PAD	1	R12#7462
◯	23	P-RAMP MOUNTING CARD	1	K16#7462
◯	24	P-BARRIER CARD	1	K16#7462-1

Dear Adult Helpers,

Gravity is something we experience in our everyday lives, like water flowing downhill or Newton's apple falling. This kit uses stories and experiments to provide children aged three and above with an understanding of the movement of objects on slopes.

Please read the story, conduct the experiments, and assemble the models together with your child. The models in this kit use the Gigo classic 2 cm block system, making them easy to assemble and disassemble. Let your child try assembling them independently, and provide assistance as needed.

Safety Information

››› Warning! Not suitable for children under 3 years. Choking hazard — small parts may be swallowed or inhaled.

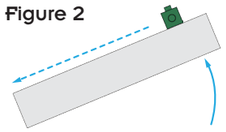
››› Keep the packaging and instructions as they contain important information.

Experiment 1 Gravity and Friction

1. Place a block on a flat surface box results in the block being stationary without any additional force applied (Figure 1).
2. However, when the box is gradually elevated to form an inclined plane (Figure 2), the block starts to slide and move downwards when the incline angle becomes significant.
3. All experiments used a slope with higher on top right, lower on bottom left.
4. Why does the block remain stationary on the flat surface but starts sliding when the box becomes more inclined?
5. You can use books or various boxes as ramps for the experiment.

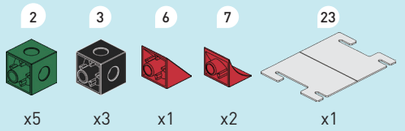
Figure 1

Figure 2

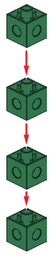


Experiment 2 Potential Energy to Kinetic Energy

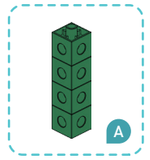
Parts List



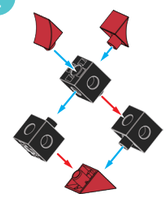
Order of assembly

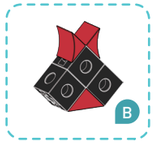


1



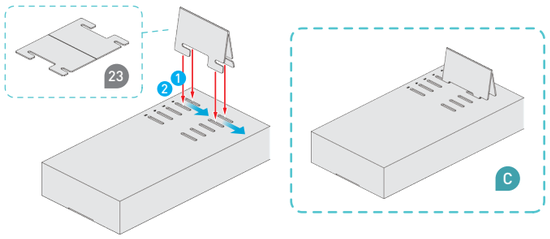
2





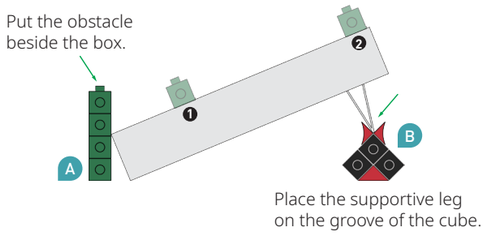
3

1. First plug the RAMP MOUNTING CARD in the holes in row 1 and row 2.
2. And push in the direction of the blue arrow to lock it up.



4

1. Place the block at various positions (points 1 and 2) on the inclined plane and observe from which position it has the highest chance of colliding with the obstacle in front as it slides downward.
2. Why is there a higher chance of colliding with the obstacle when the block starts sliding from the highest position?



Experiment 3 Modes of Motion - Sliding and Rolling

Parts List

Order of assembly

1

2

1. Prepare four CONVEX blocks and assemble them into a shape resembling a disc or a close approximation to a circular shape. When placed on the inclined plane, this disc shape will roll downhill.
2. Compare the speed of movement between the disc shape and the CUBE block!

Experiment 4 Walking Instead of Sliding

Parts List

Order of assembly

1

Stickers exceeding the cube face are more likely to catch when the feet meet.

2

3

Scientific Principle:
The Shift of Center of Gravity

Center of Gravity Pivot Moving Direction

4

1. First plug the RAMP MOUNTING CARD in the holes in row 2 and row 3.
2. And push in the direction of the blue arrow to lock it up.

5

1. Insert the BARRIER CARD.
2. Put it on the slope. It will start walking.

6

1. How can we change the model so it walks down the slope step by step, rather than sliding?
2. Assemble a small model and observe the pivot points, and center of gravity transitions. If the model is not moving forward, try gently pressing the rear of the model to set it swinging, and it will move forward.

Model 1 Caiman and Cave

In the swamp, little caiman Kevin discovered a secret cave filled with shiny crystals...

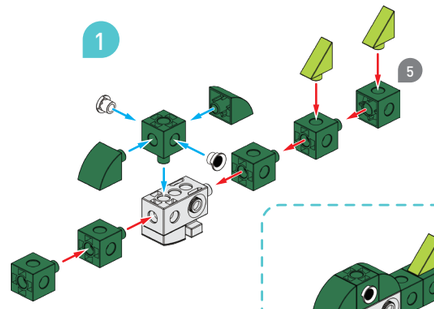
Once upon a time, a tiny caiman named Kevin lived in the swamp. He was excellent at finding the most comfortable homes. One day, as Kevin ventured through the swamp, he stumbled upon something peculiar – a downward slope. Intrigued, he decided to follow it.

Guess what he found? It was a secret cave filled with shiny crystals! Kevin considered it his new special place, where he felt safe and happy, surrounded by the sparkling beauty of the crystals.

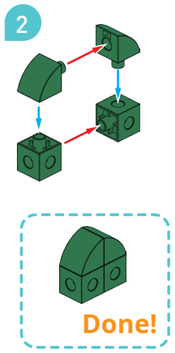
Parts List

Order of assembly

1



2



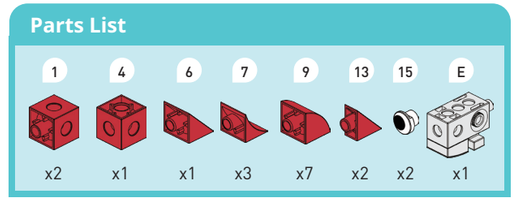
Model 2 Crab and Little Shrimp

Freddie the fiddler crab and Sammy the little shrimp showed everyone the power of friendship.

Once upon a sandy beach, there were two special friends: Freddie the fiddler crab and Sammy the little shrimp. They loved playing together, even though Sammy couldn't stay on land like Freddie.

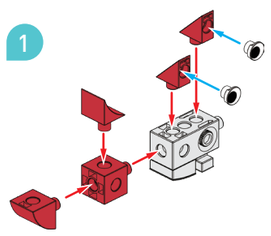
Sometimes, Freddie would walk down the hill to the sea to visit Sammy, and they would have so much fun! Freddie would dance with his special claws, and Sammy would swim and twirl underwater. They showed everyone that even different friends can have the best time together, making the beach a happy place for all!

Parts List

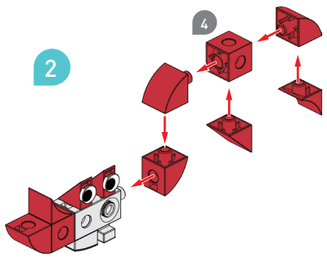


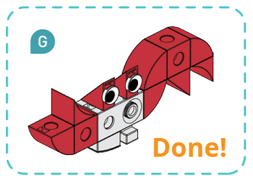
Order of assembly

1

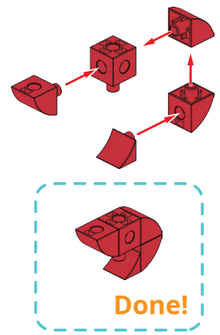


2





3



Challenge Fiddler Crab Rescues the Little Fish

Two little fish are stranded on the shore. How can the fiddler crab move them both into the sea at the same time?

Two fish have different weights. Try figuring out how to arrange them so that the fiddler crab can lift both fish at the same time.

Parts List

1

2

Try different weight configurations to find the best way to carry both little fish down the slope!

The fiddler crab, carrying two fish, has a higher center of gravity, so its pace is slower!