

MAGFORMERS®

Intelligent Magnetic Construction Set For Brain Development

BRAIN MASTER SET

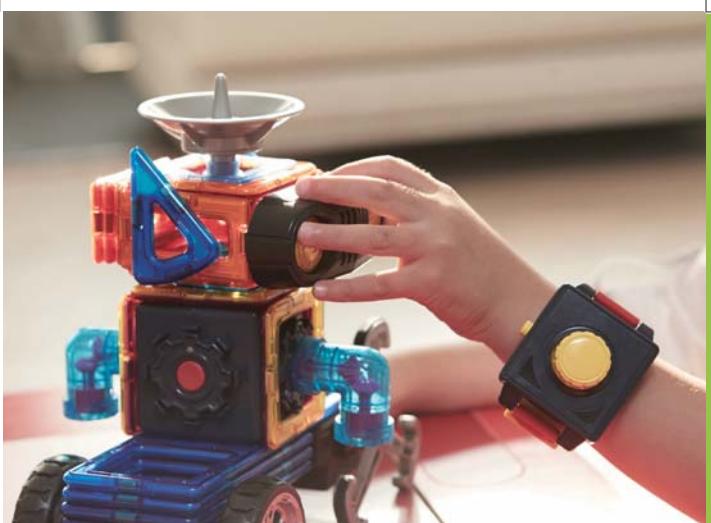
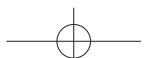
GUIDE BOOK

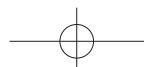


MAGFORMERS INC.

210 mm

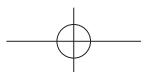
297 mm





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Educational value of Magformers According to Age



Sensitive 1-3 year-old
Sensorimotor Stage

A critical period that forms 80% of brain development. Through various sensory stimulation activities and finger movements, the brain and nervous system are developed.

Educational Effects

- M
- A
- D
- M
- D

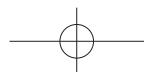
A period to passionately explore objects. While operating surrounding objects, curiosity increases. Symbolic thinking is developed, and imaginative and virtual play forms are displayed overall.

Educational Effects

- I
-
- D

Curious 3-5 year-old
Preoperational Stage





Stubborn 5-7 year-old
Concrete Operational Stage

A period when self-reliance and independence is developed, which causes behavior based on accomplishment. The ability to think and express themselves is developed, and creative and unique play is possible.

Educational Effects

- M
- D
- D
- D

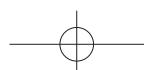
A period that enables concrete thinking about objects and specific reproduction regarding the surrounding world that they experience. In this process, observation and analytical skills relating to objects, and logical thinking are developed.

Educational Effects

- D
- D
- D
- D
- D

Expressive 7 year-old and older
Formal Operational Stage





Magformers Brain Master Set

Modeling

D

Reasoning

I

D

BRAIN

Sensory development

I

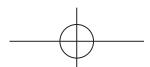
S

D

Curiosity

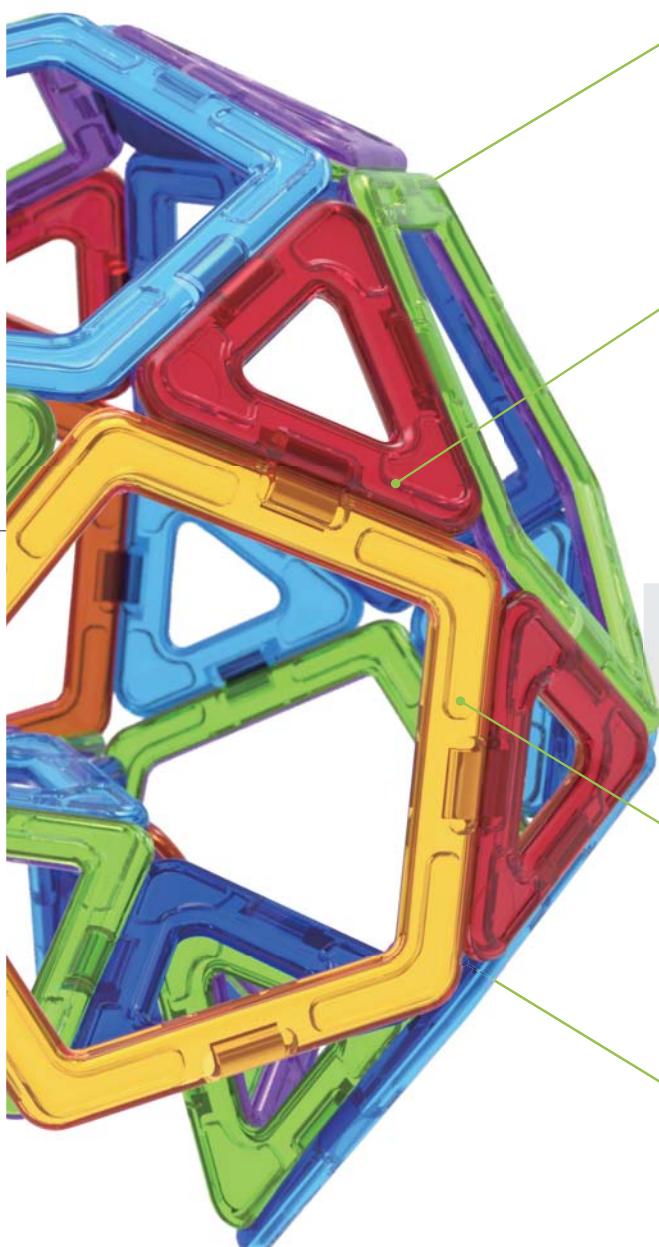
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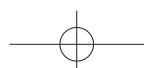




M B M S

T M B M S I

**Creativity****Mathematics thinking****Imagination****Scientific thinking**



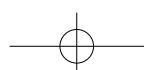
Composition of Brain Master Set

Basic Shape

Triangle X 34	Square X 44	Window Triangle X 8	Window Square X 8	Isosceles Triangle X 8	Rectangle X 4
Pentagon X 2	Hexagon X 2	Diamond X 4	Trapezoid X 4	Arch X 4	Sector X 8
Mini Rectangle X 8	Super Rectangle X 2	Super Triangle X 4	Cone X 4	Super Sector X 8	Super Arch X 4
1/8 Mini Sector X 8	1/8 Mini Arch X 4	Super Square X 6	1/8 Sphere X 8	Oval Sector X 4	Oval Arch X 2

Basic Accessory

Boy Square X 1	Girl Square X 1	Princess Square X 1	Astronaut Square X 1	Block X 10	Wheel X 2
Propellers X 1	Crane X 1	Pulley Block X 1	Antenna X 1	Triangular Pyramid X 8	New Extension Pyramid X 6
Rotate Block X 8	Cards X 20	Bar X 2	Super Bar X 2	Window Single X 5	Window Double X 5



Basic Accessory

Window Grid
X 5Balcony
X 2Brick
X 10Tree
X 2Stairs Block
X 1Door
X 1

Gear Accessory

Big Gear
X 4Small Gear
X 4Square
Playground X 2Hexagon
Playground X 1Gear Handle
X 1

Power Accessory

Power Engine
Block(RF) X 1Engine Module
1-way X 1Engine Watch
X 190° Female
Connector X 2Walking Block
X 1Auto Sliding
Block X 1Big Wheel
X 2Propellers Wheel
X 2Square Auto
Connector X 2Spiral Block
X 1LED Block
X 1USB Cable
X 1

E O

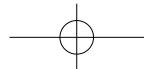
G T B

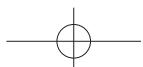
R/C Accessory

R/C Block
X 1Head Block
X 1R/C Front Wheel
X 1R/C Remote
Control X 1

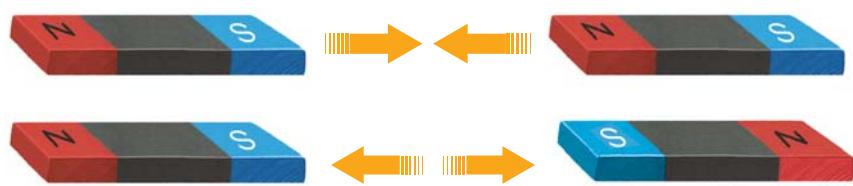
R R O

G T B

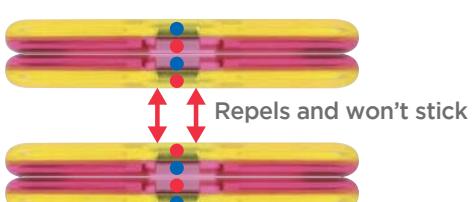
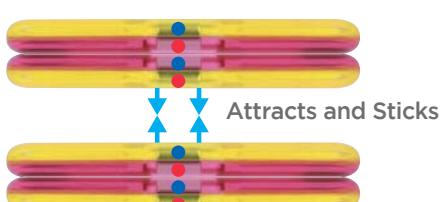




The Principles of Magformers



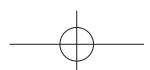
However, as shown above, if two pieces are stuck together and the magnets cannot rotate, they might repel each other in some cases. That's why it's easier to attach one piece to another. Likewise, when you clean up the Magformers pieces, it's easier to attach one piece to another!



Correct Example



Incorrect Example



Tip. How to Make Magformers Easily

T

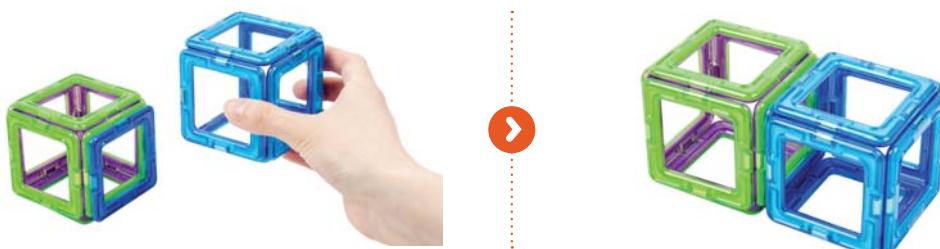
M

D

M

Case1 > Combining a 3D piece with another 3D piece

When you combine a 3D piece with another 3D piece, the rotating magnets may be fixed and repel each other. Just like the picture below, attach one edge of a piece to another first and then attach the rest.



Case2 > Combining a 3D piece with another piece

When you create a 3D shape and add another piece to the edge, attach it to the middle of the edge to fix it well as shown in the picture below. In addition, when you want to attach 2 pieces at once, attach them like the picture below.



Warnings when Using the Magnetic Block

M

S

D

- Always keep the product away from fires.

I

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K

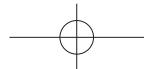
- When you first open the product, it may smell like plastic, but it is safe to use.

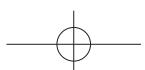
K

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K

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D





6 Ways to Use Magformers

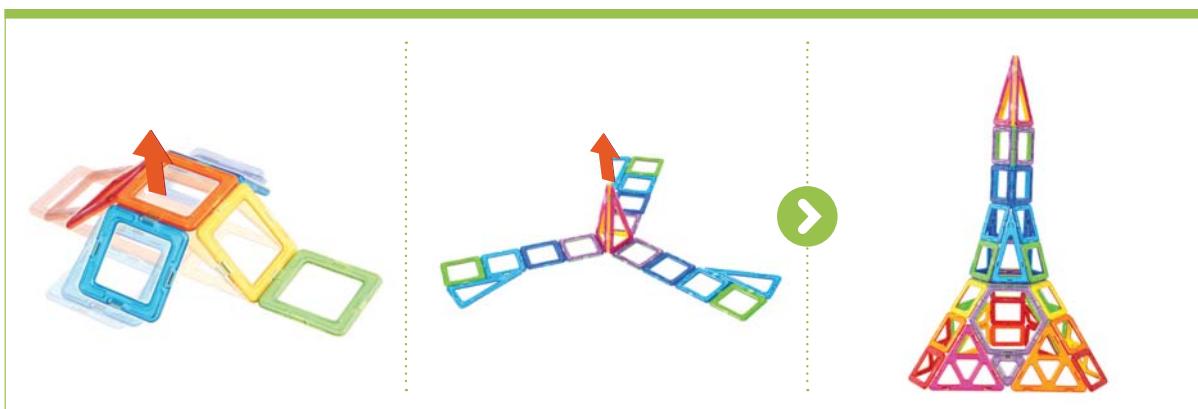
1. Pull Up > A

D

M

U

M

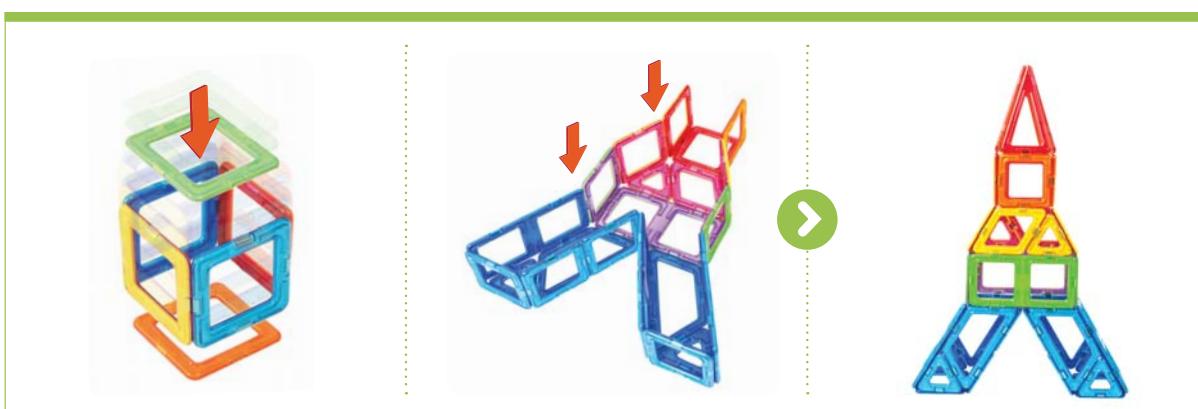


2. Build a wall > A

D

D

M



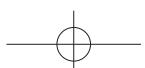
3. Roll > A

D

M

D



**4. Fold > A**

D

M

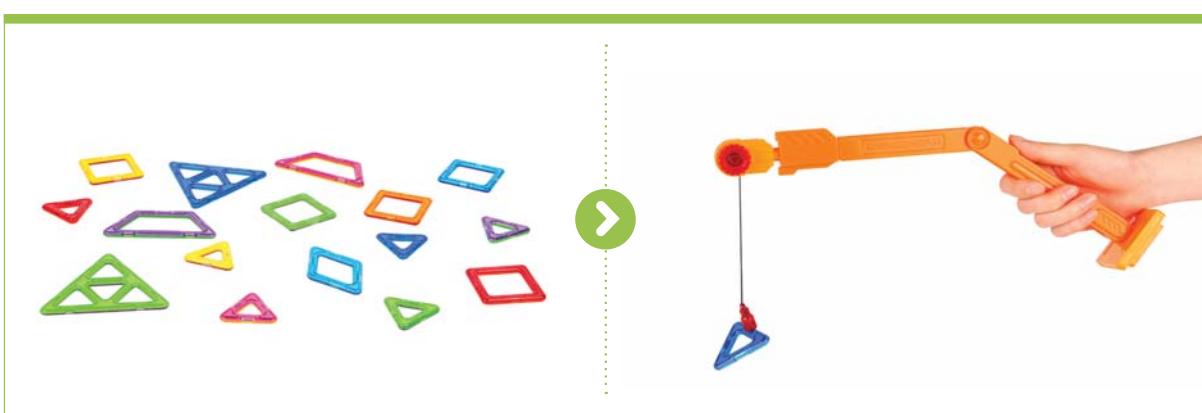
**5. Combine > A**

M

D

**6.TIP > M**

G





How to Use Magformers Basic Accessories

Basic Accessories



Wheel



Crane



Pulley



Propeller



Antenna



Window Single

How to Assemble and Examples

B

M



Wheel



Pulley, Crane

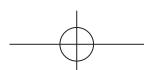


Propeller



Antenna





Basic Accessories



Window Double



Window Grid



Balcony



Brick



Tree



Block



Card

How to Assemble and Examples

B

M



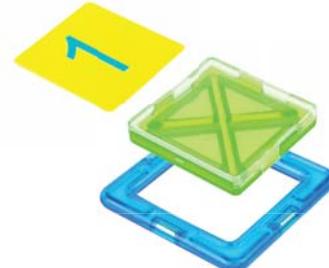
House Accessory



Tree

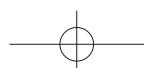


Block



Card





How to Use Magformers Gear Accessories

Gear Accessories



Big gear



Small Gear



Handle



Square Playground



Hexagon Playground

How to Assemble and Examples



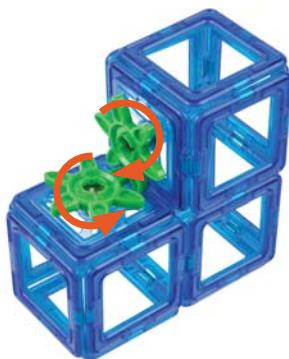
Rotate Block + Gear + Handle



Piece + Playground + Gear



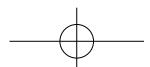
The big gears deliver power to the outer surface.



The small gears deliver power to the inner surface.



The gears deliver power organically.



How to Use Magformers LED Block



LED Block

T ED B

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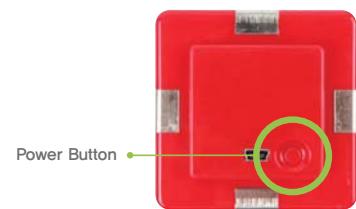
ED B



How to Use the LED Block

T ED B

E fixe I

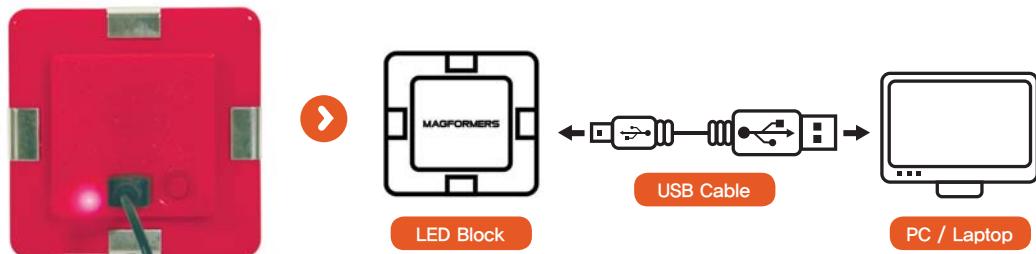


How to Charge the LED Block

USB

ED B

Charging in any way other than the recommended method may cause a malfunction.
Please use a PC or laptop to charge the product.



Warnings for the LED light (This must be read by a child's parent or guardian)

T

ED

ED

D

D

USB

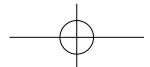
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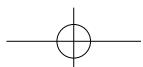
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USB AB E

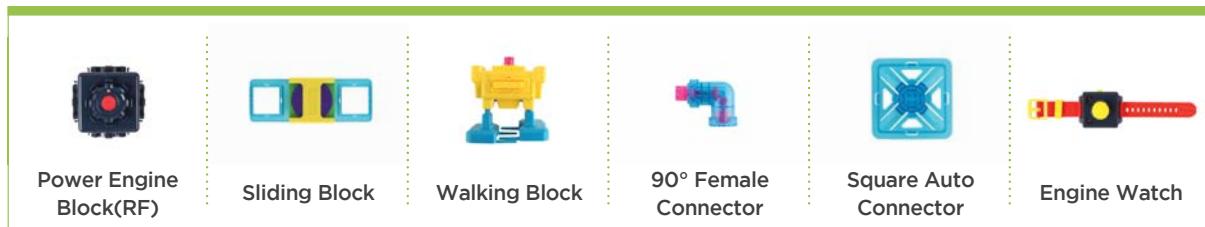




How to Use Magformers Power Accessories

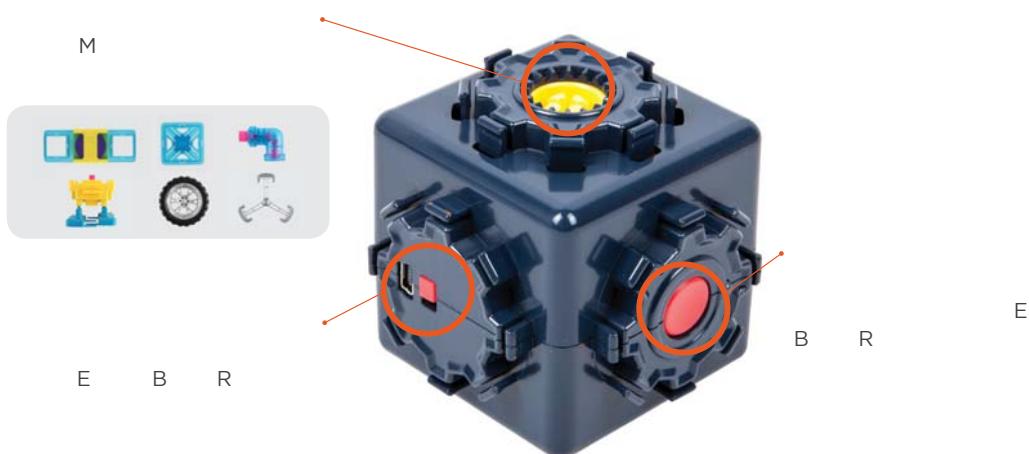


Power accessories



How to Use and Charge the Power Engine Block(RF)

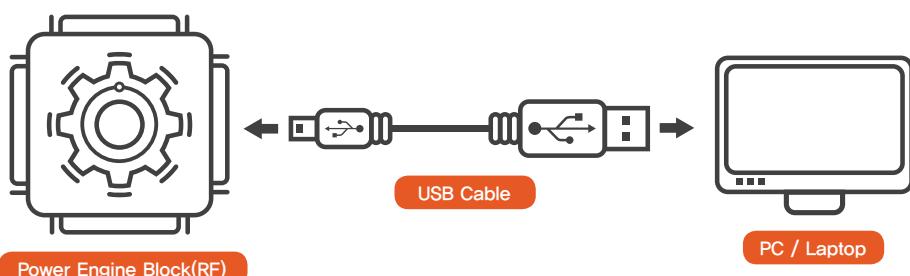
How to Use the Power Engine Block(RF)

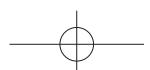


※If the model goes backwards when you control it, turn the Engine Watch button to the opposite direction, or press the power button of the Power Engine Block(RF) once more to make it move forward.

How to Charge the Power Engine Block(RF)

USB
T
I
E B R
Charging in any way other than the recommended method may cause a malfunction. Please use a PC or laptop to charge the product.





How to Use the Engine Watch and How to Replace Batteries

How to Use the Engine Watch

When the power switch is turned on, a red light appears on the front.
Try to control the Power Engine Block(RF) with the Engine Watch.

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B

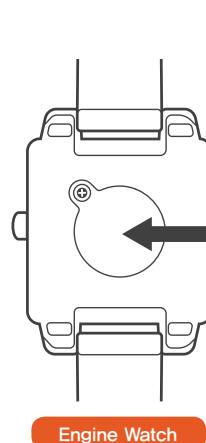
T
※

E B R

B



How to Replace the Engine Watch Battery

BATTERY
CR2032 3V

Warnings when Using the Power Accessories

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E B E B R

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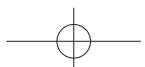
B

R

E B R

USB

USB



How to Use Magformers R/C Accessories

R/C Accessories

T R B B R R



R/C Block



R/C Front Wheel



Head Block



R/C Remote Control

How to Use the R/C Block



T

A

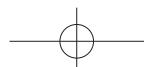


R B



You can control the R/C Block and Head Block with the R/C Remote Control!





How to Use the R/C Remote Control

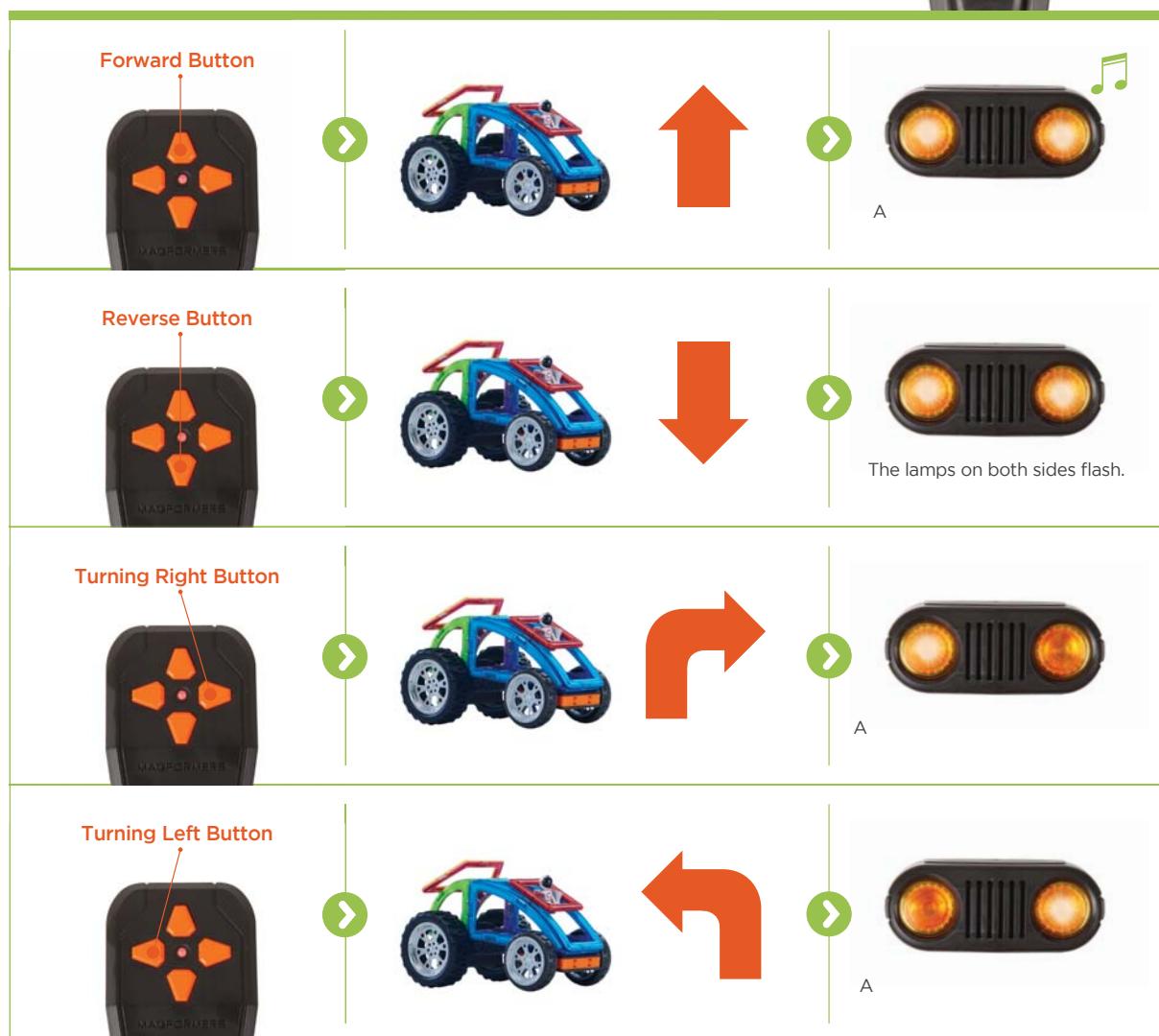


R B

R R
B
R R

Power Switch

Special Button

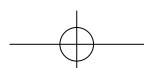


How to Use the Head Block

M

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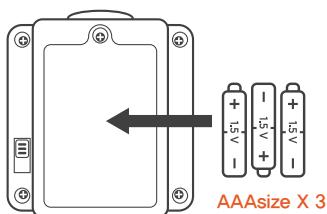




How to Use Magformers R/C Accessories

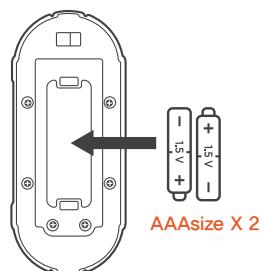
How to Replace the R/C Block, R/C Remote Control and Head Block Batteries

T R B R R



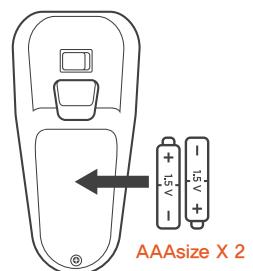
R/C Block

B



Head Block

AAA



R/C Remote Control

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Battery Warnings

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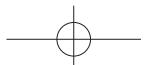
How to remove and insert replaceable batteries.

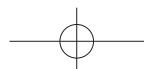
R
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R
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Warnings when Using the R/C Accessories

R I R
I R T R
A M N R I
U R A R R
D fi T R R
T R R R
D fing R R
D R R R
D m fir R R
D R R R
D R R R



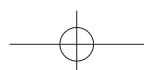


FOR BEGINN LEVEL 1.

M

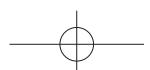
M





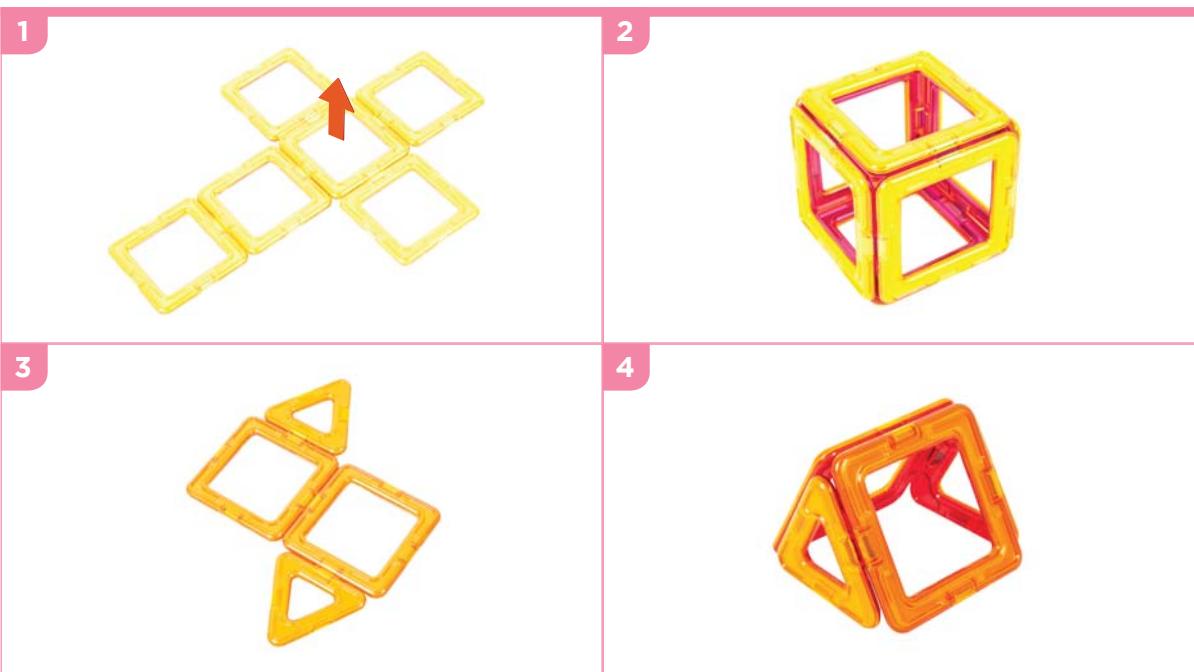
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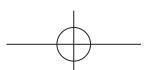
House

How to make



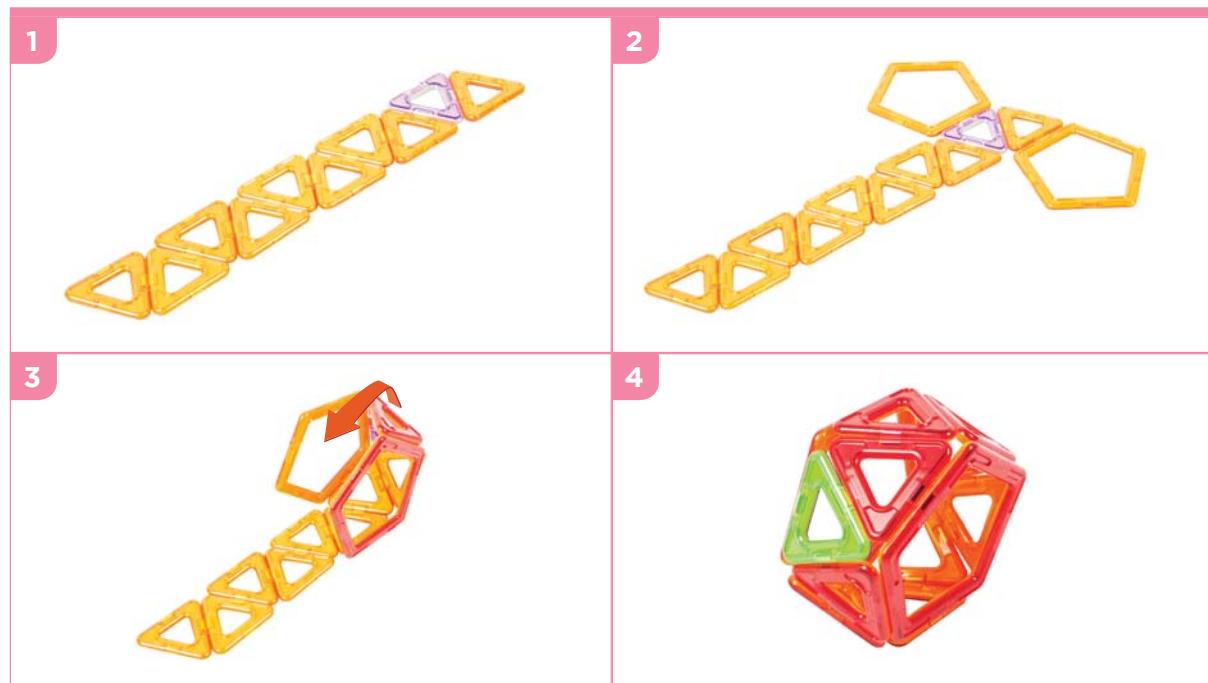
Composition

△ x 2 □ x 8



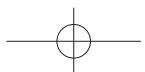
Apple

How to make



Composition

△ X 10 ▲ X 1 ▵ X 2



Car

How to make

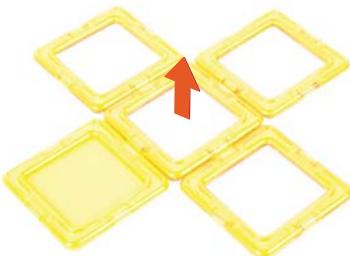
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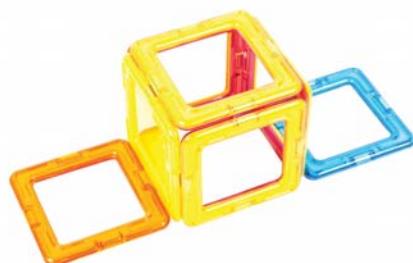
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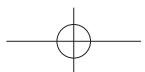


4



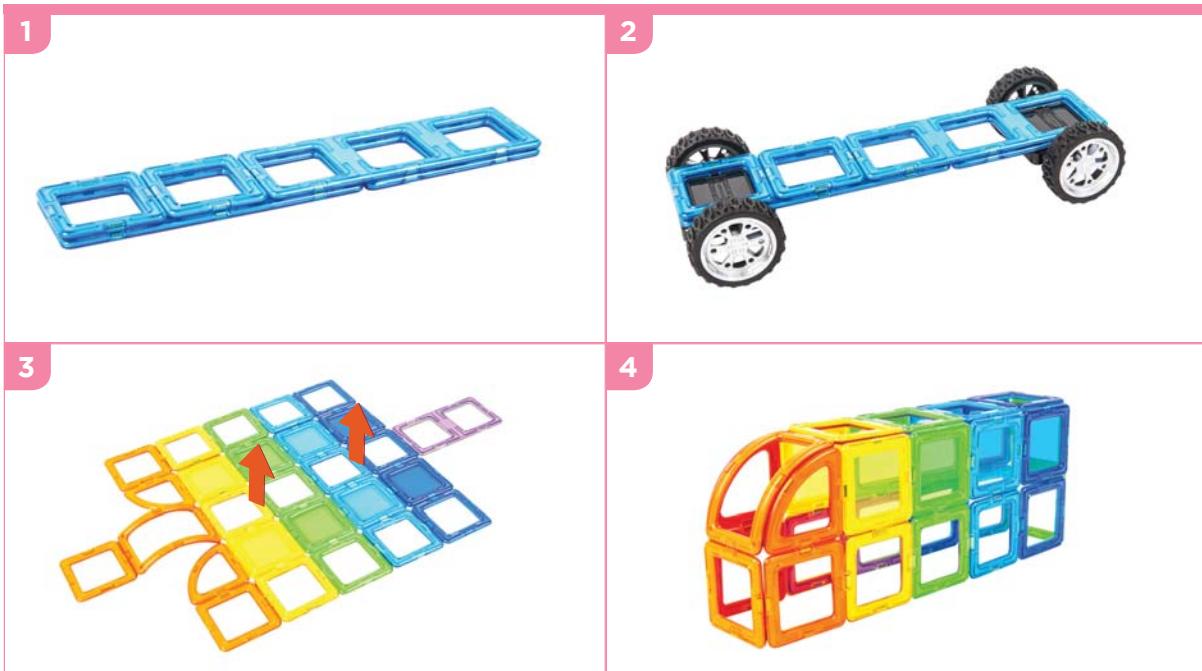
Composition

X 14 X 1 X 1 X 2



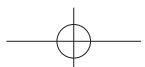
Bus

How to make



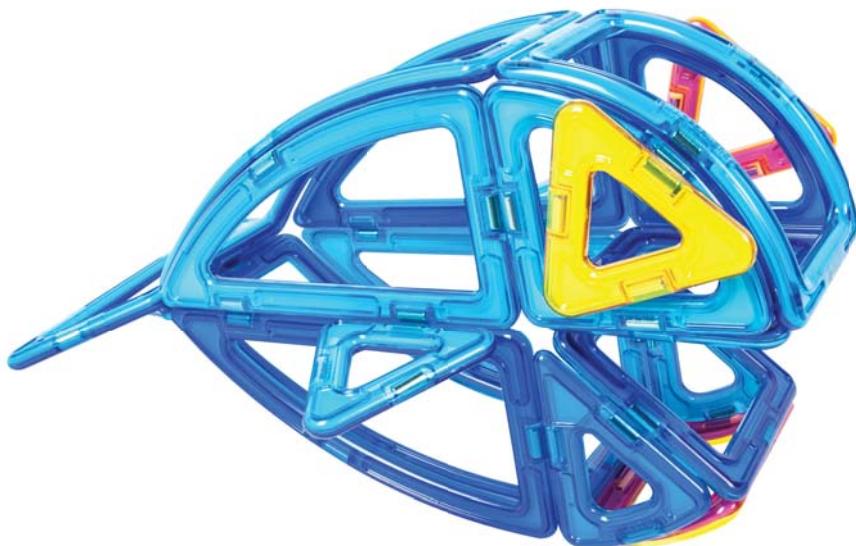
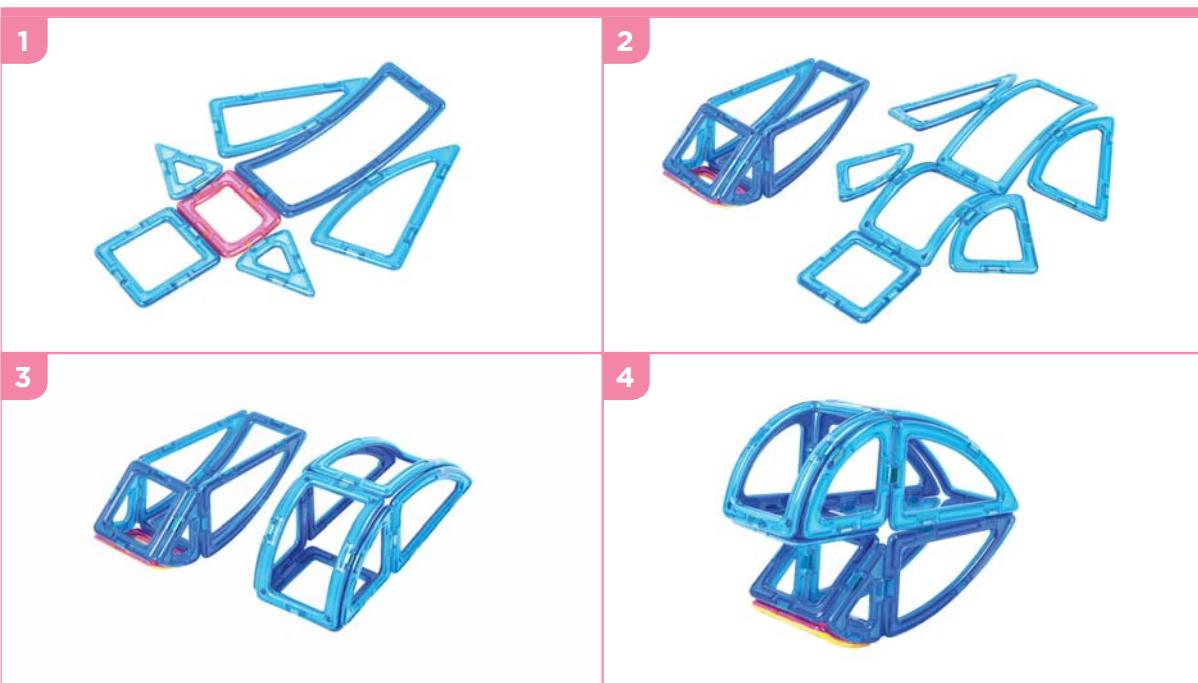
Composition





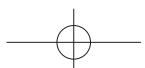
Fish

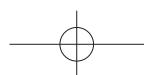
How to make



Composition

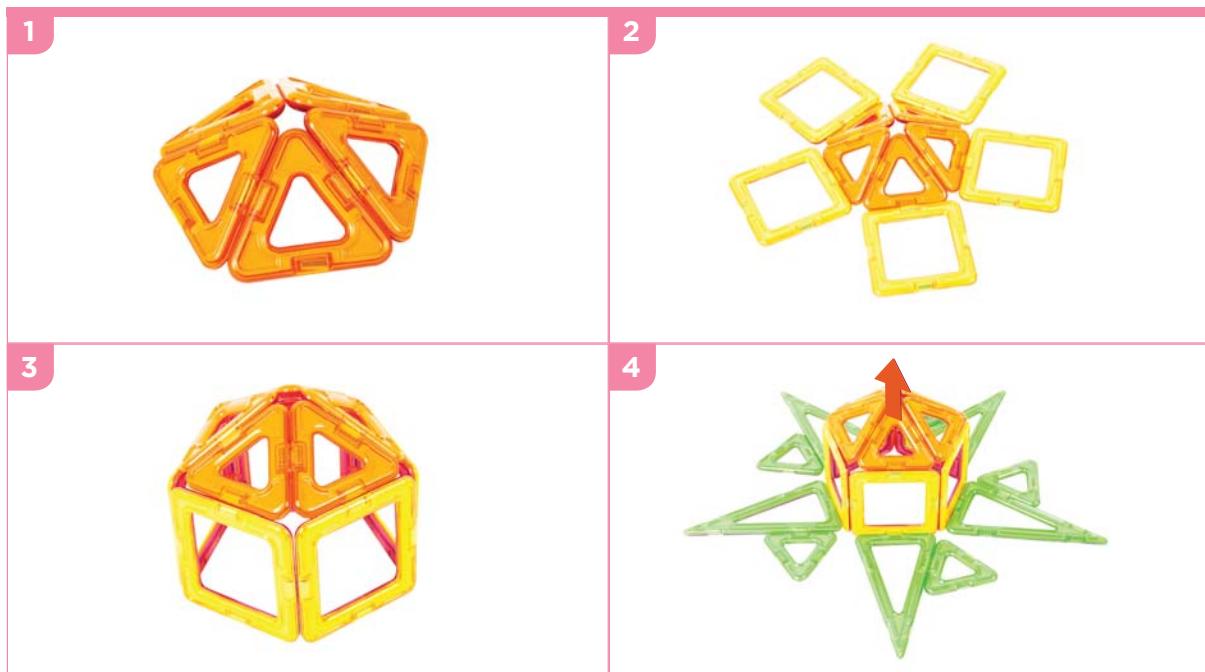
X 5	X 2	X 1	X 1	X 2	X 2	X 1	X 4	X 2
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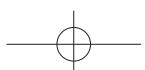
Octopus

How to make



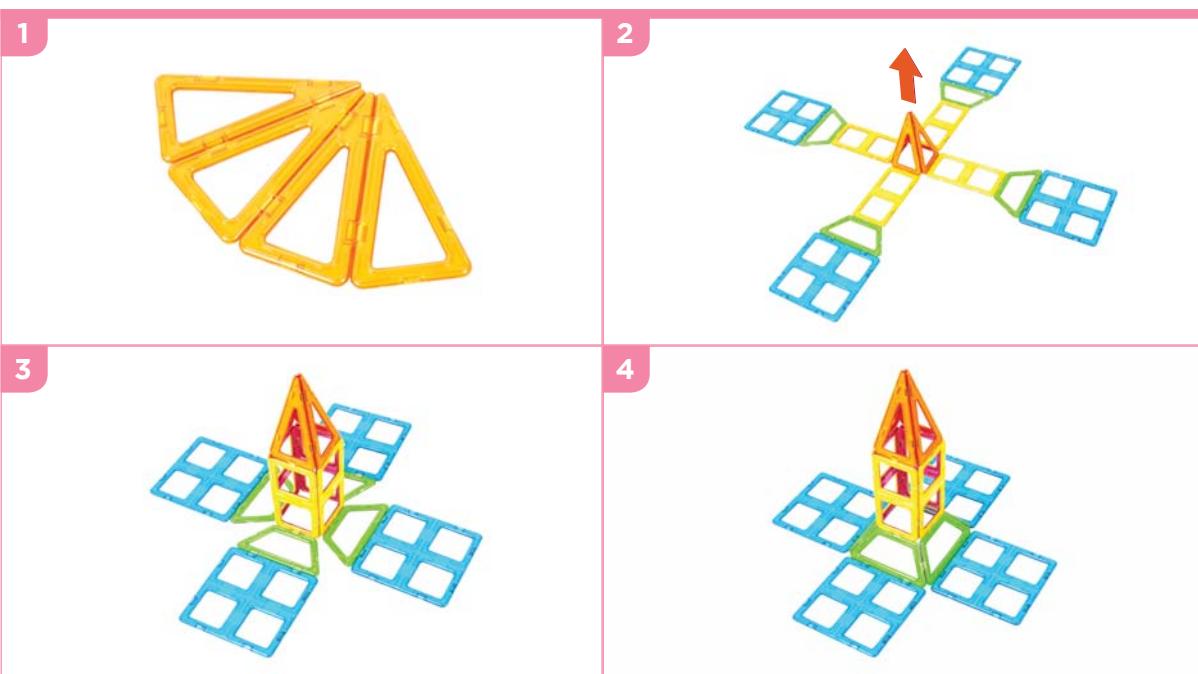
Composition

△ X 12 □ X 5 ▲ X 5



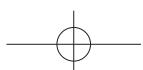
Building

How to make



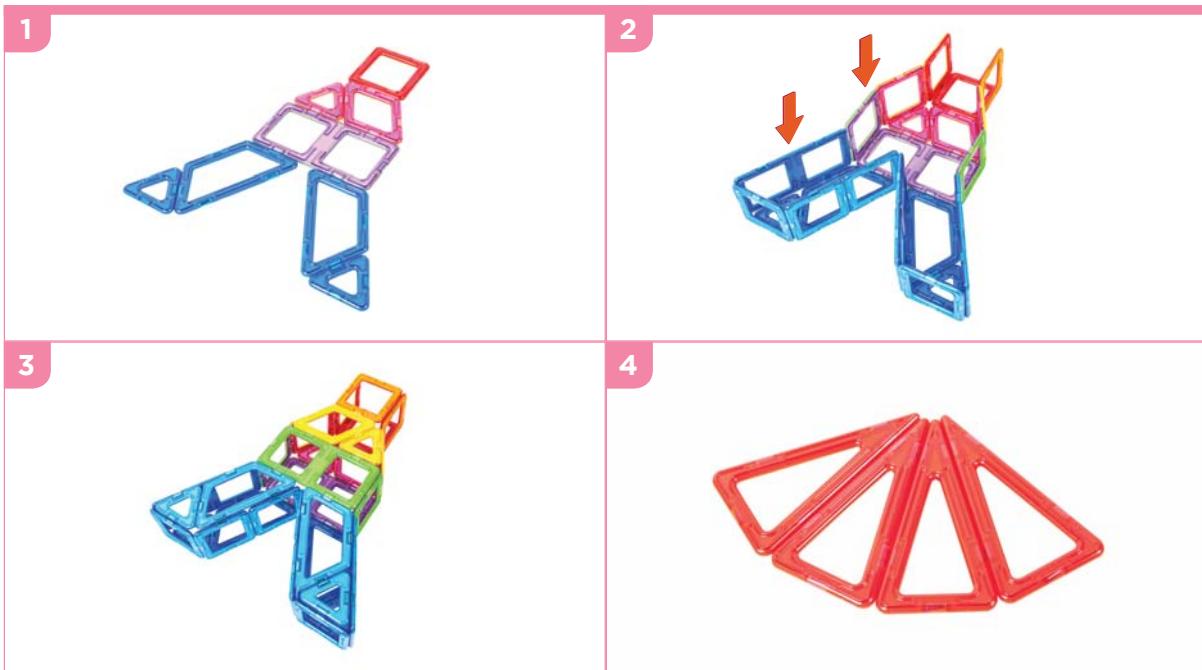
Composition

Yellow triangle: 4 pieces
Green square: 4 pieces
Red triangle: 4 pieces
Green cross: 4 pieces



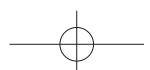
Eiffel Tower

How to make



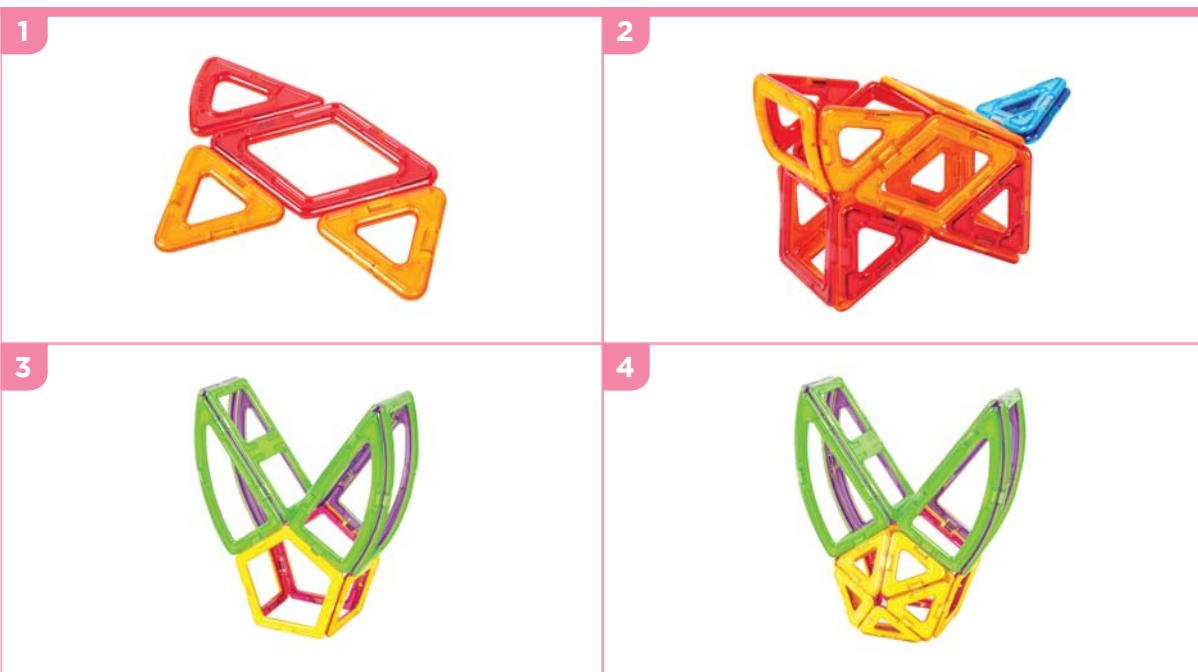
Composition

△ X 6 □ X 14 △ X 4 □□ X 4 □ X 2 △ X 4



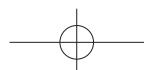
Desert Fox

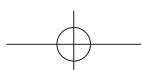
How to make



Composition

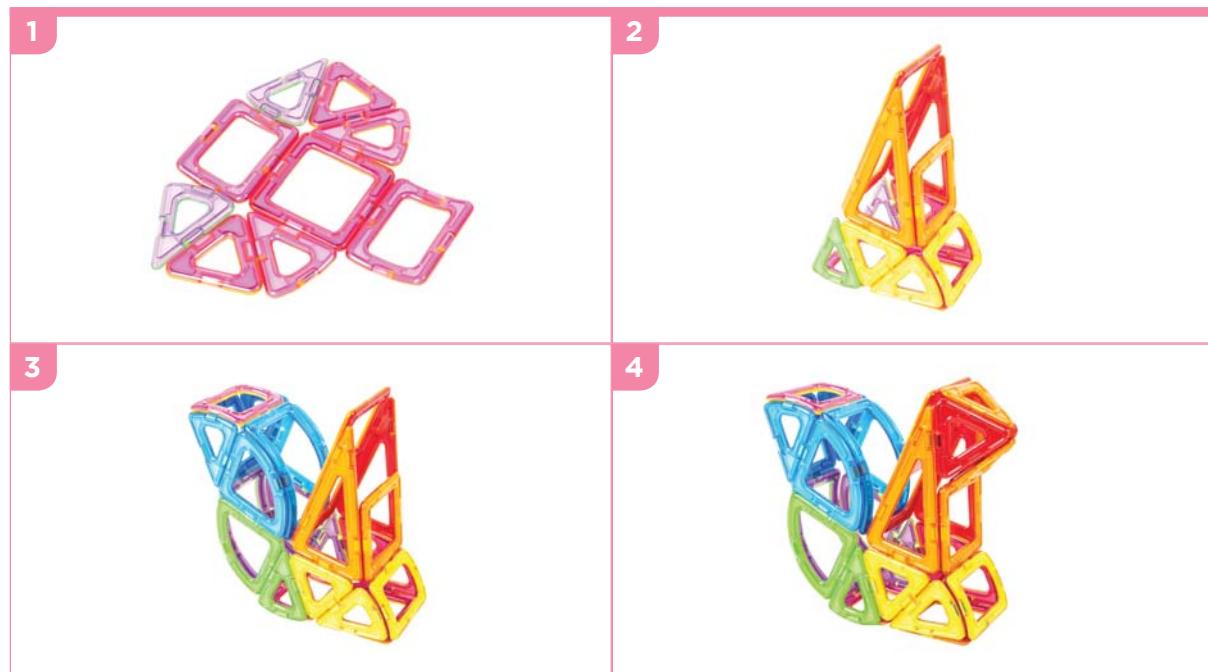
△ X 11	□ X 7	□ X 2	△ X 2	□ X 2	△ X 2	□ X 1	△ X 4	□ X 2
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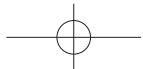
Squirrel

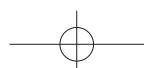
How to make



Composition

x 8	x 3	x 2	x 1	x 2	x 4	x 8	x 3
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Create simple models with Magformers.



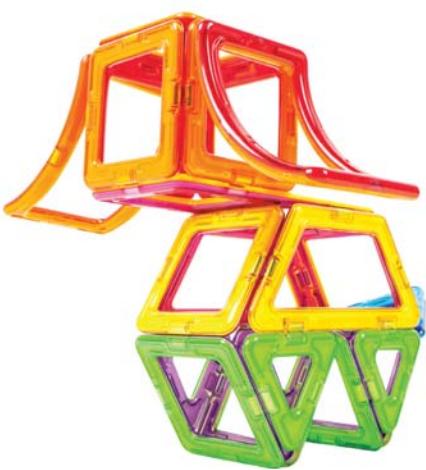
Giraffe

- △ X 7
- X 7
- ▽ X 2
- X 1
- ▽ X 2
- △ X 4
- X 2



Airplane

- X 7
- △ X 4
- X 3
- X 2
- ▽ X 4
- ▽ X 2
- X 1
- △ X 1



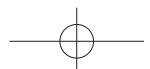
Dog

- △ X 6
- X 11
- X 1
- ▽ X 2
- X 2



Mouse

- △ X 2
- X 2
- △ X 2
- ▽ X 2
- X 2
- ▽ X 4
- △ X 4

**Train**

■ X 6 ▲ X 4 ■ X 4 □ X 2
■ X 2 ▵ X 4 ■ X 2

**Lollipop**

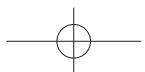
▲ X 6 ■ X 7 ▲ X 6 □ X 4
□□□ X 1

**Diamond**

▲ X 12 ■ X 1 ▵ X 8 ■ X 1

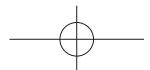
**Igloo**

▲ X 8 ■ X 26



FOR INTER





LEVEL 2.

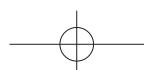
MEDIATE

M

D

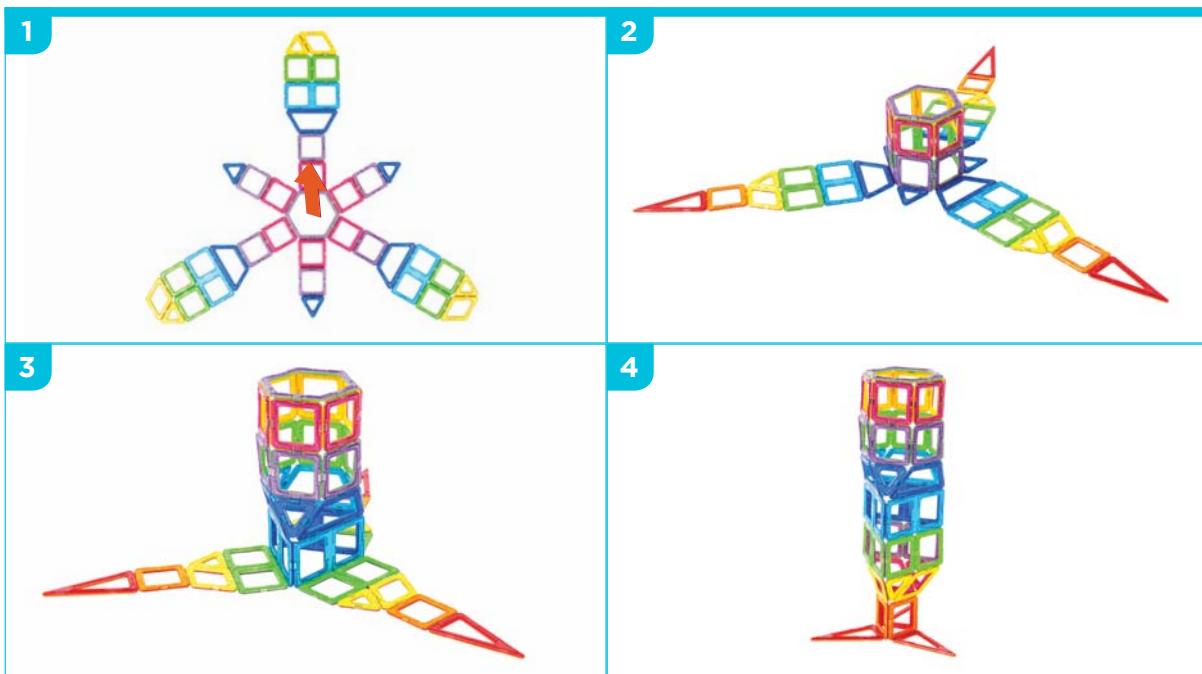
M

D D



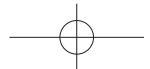
Tower A

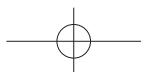
How to make



Composition

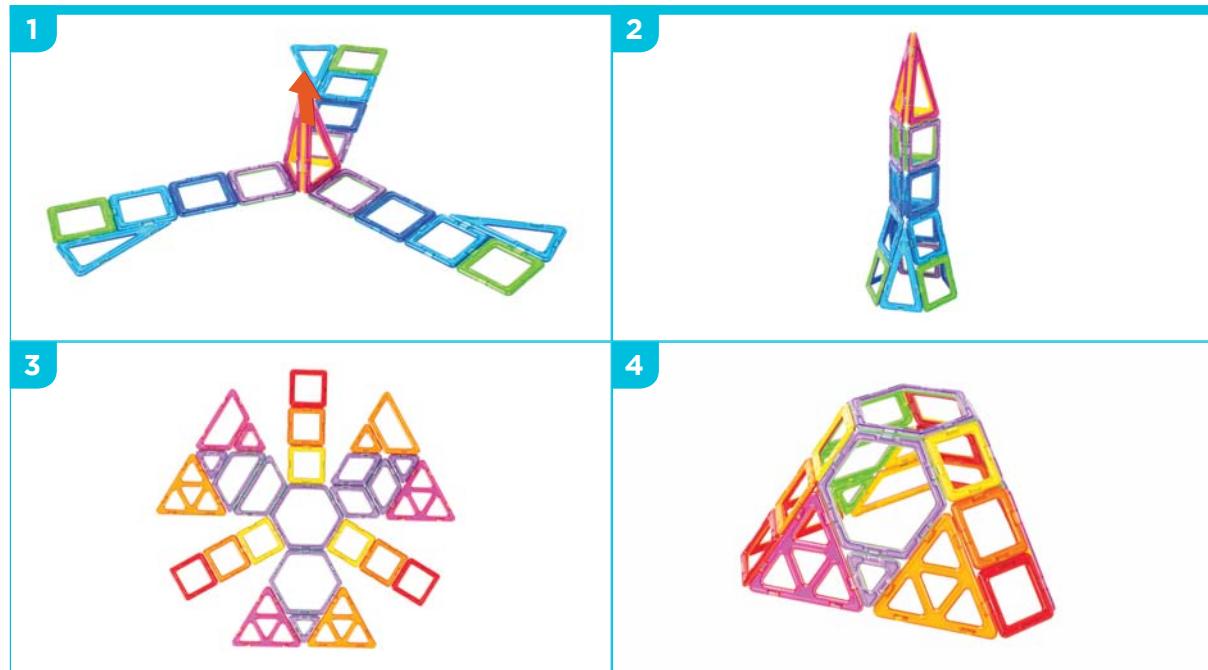
X 6	X 21	X 3	X 3	X 1	X 3	X 3
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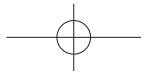
Tower B

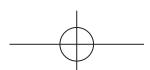
How to make



Composition

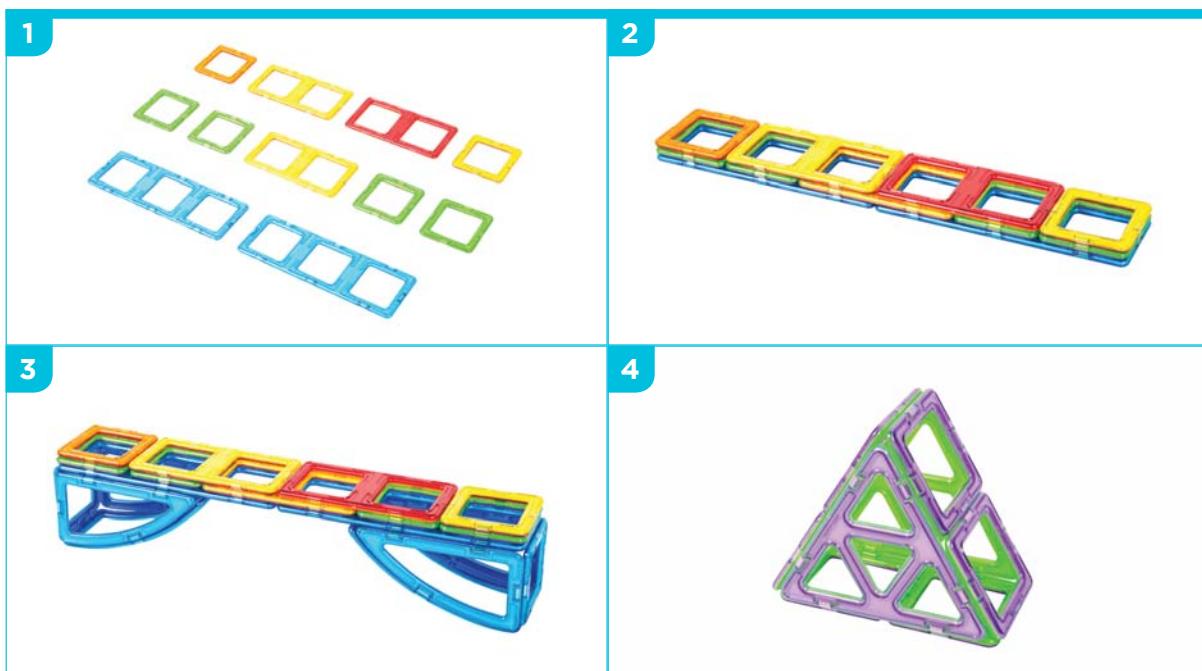
X 5	X 21	X 6	X 2	X 3	X 4	X 4
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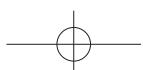
Seesaw

How to make



How to make

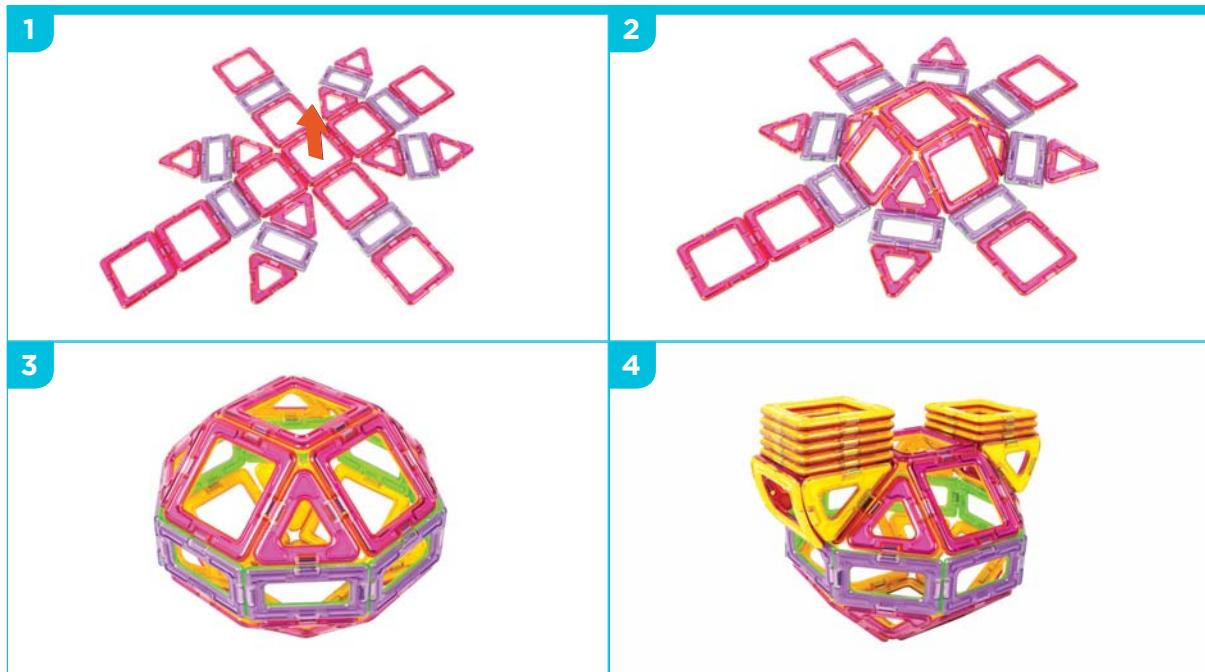




Pumpkin Carriage

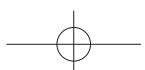


How to make



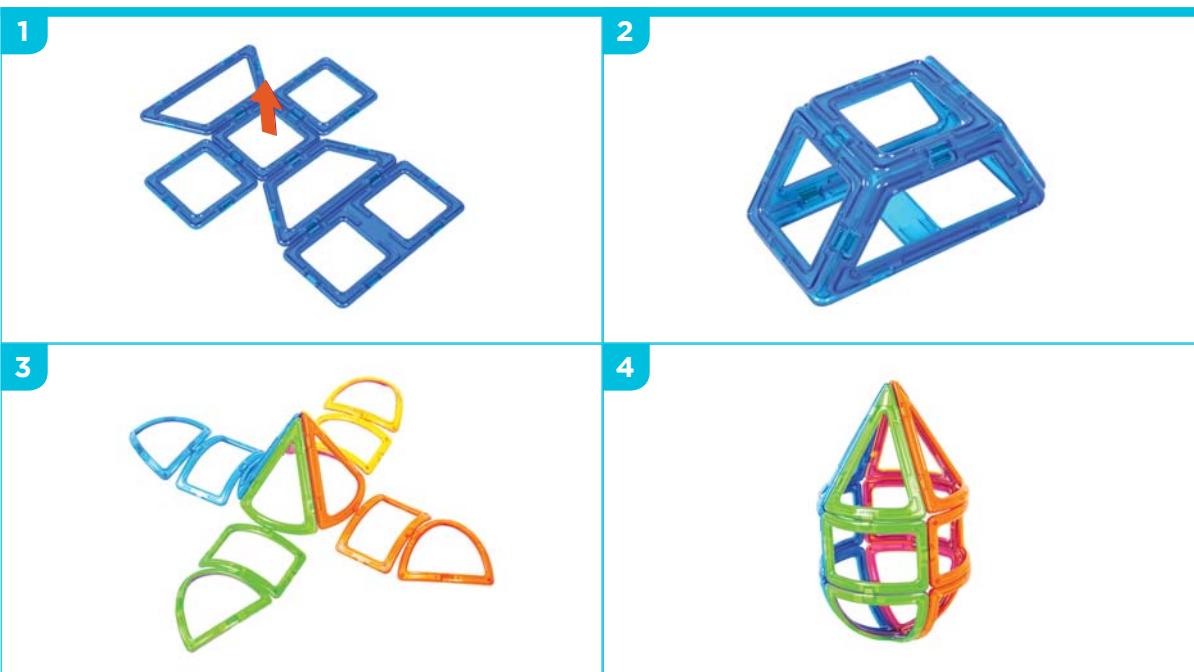
Composition

X 12	X 18	X 8	X 4	X 2	X 1	X 1	X 1	X 2
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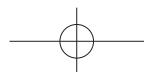
Mini Helicopter

How to make



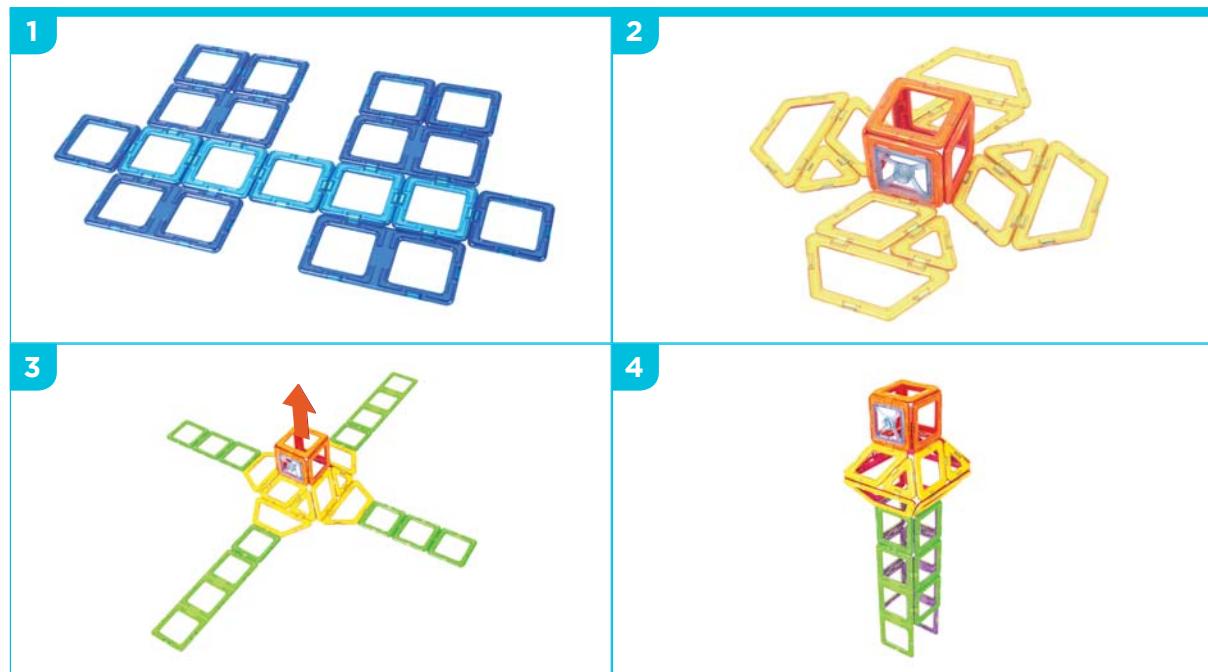
Composition

□ x 4 ▲ x 2 □ x 1 ▱ x 2 □ x 4 △ x 4 ▲ x 4 ✕ x 1 ⚡ x 1



Control Tower

How to make



Composition

X 4	X 24	X 4	X 4	X 4	X 2	X 1	X 1
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