

LEGO®
Bridging the Gap

Create a bridge built
only with LEGO®s.

MackinMaker

T

Tinker

1

Points

Materials:

- LEGO® Large Creative Brick Box
 - Paper and Pen/Pencil
-

Quick Start:

1. Gather some LEGO®s that are different shapes and sizes.
 2. Think about how you will need to build this differently from other things you've built with LEGO®s.
 3. Sketch out your ideas of how your bridge might look before building.
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Hints and Tips:

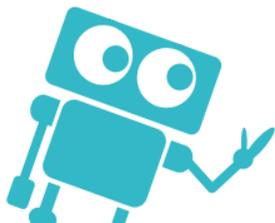
- Look at pictures of famous bridges or bridges in your community. How can you build something similar using LEGO®s?.

Extended Challenges

Social Studies: Model your bridge after a famous bridge like the Brooklyn Bridge or the London Bridge. Are there any historical bridges that are still in use? How are they still standing? How old are they?

Science: What does it take to build a strong bridge? What kinds of bridges are there? Which are the strongest?

English/Language Arts: Write a story about your bridge and who might cross it.



S

Skill-Up

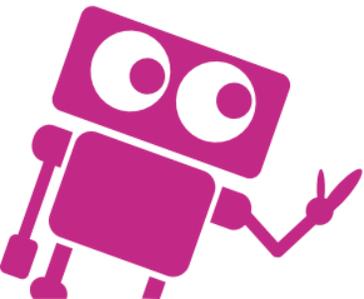
6

Points

LEGO®
AnimaLEGO

Build an animal of
your choice.

MackinMaker



S

Skill-Up

6

Points

Materials:

- LEGO® Large Creative Brick Box
-

Quick Start:

1. Gather some LEGO®s that are different shapes and sizes.
 2. What animal will you build? Brainstorm some ideas before you start building!
 3. Build the animal of your choice! !
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Hints and Tips:

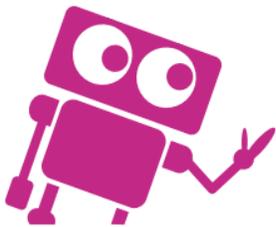
- For ideas on what animal to choose, look through books about animals and images of animals.
- For ideas on how to build your animal, look at images of the animal you

Extended Challenges

Science: Do some research on the animal you choose. Where does your animal live? Build a habitat for the animal.

Science: What does your animal eat, and what eats your animal? Build other animals in the food chain!

English/Language Arts: Choose an animal from a story you have read and build it.



D

Design

11

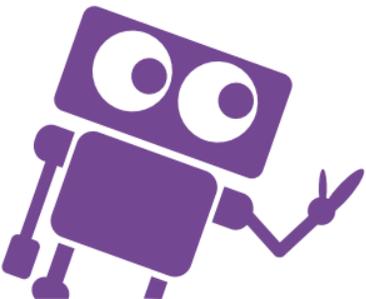
Points

LEGO®

The aMAZEing Challenge

Build a maze which can be tilted to get a marble from one end of the maze to the other.

MackinMaker



D

Skill-Up

11

Points

Materials:

- LEGO® Large Creative Brick Box
 - A marble
-

Quick Start:

1. Have you ever gone through a maze? What makes a maze fun? Think about what you like, and don't like, about mazes. Sketch out a plan for how you will build your maze.
 2. Try to build a maze that is basic to start, and as you improve, build one that is harder to finish.!
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Hints and Tips:

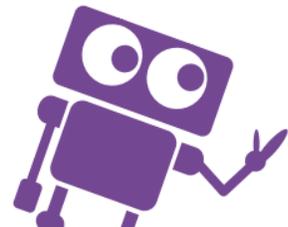
- Build two of the same mazes. Then, have two friends compete to see who can get their marbles through the maze first!
- As you get better, you can build more mazes with different routes, or create new maze challenges.

Extended Challenges

English/Language Arts: Make a maze that connects to a theme in a book, poem, or play you like. Make points in the maze relate to points in the book, poem, or play.

Social Studies: Make a maze that connects to a historical journey or time period. Make points in the maze relate to points in the journey or important moments from that time in history.

Science: Think about what worked and did not work well when building and going through your maze. How can you use the scientific method to improve your maze? Hypothesize and experiment with different maze designs.





G

Global



20

Points

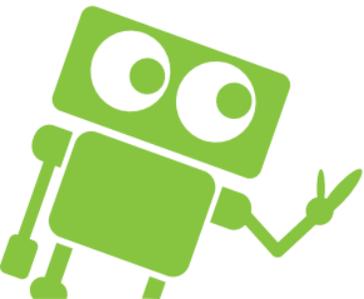
LEGO®

Environment Help with LEGO®

Brainstorm ways to help the environment. Build a prototype of something that already exists, or something that you would like to invent, to preserve our world in some way.



MackinMaker



G

Global

20

Points

Materials:

- LEGO® Large Creative Brick Box
 - Paper and a pencil
-

Quick Start:

1. Gather some LEGO®s that are different shapes and sizes.
2. Brainstorm different ways we protect and preserve our environment or ways you would like to see us protect the environment. Will you build a new electric vehicle? A big wind turbine?
3. Build your prototype using only LEGO®s!

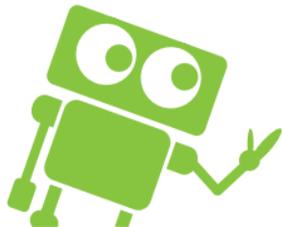
Hints and Tips:

- For ideas, look at books about the environment and climate change. Look at pictures of inventions we have already created. Do you have ideas for new inventions that would help protect the planet?
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Extended Challenges

Social Studies: Can you prototype, or build a model of, anything that might help solve some problem within your school?

English/Language Arts: Choose a problem from a story you have read. Can you engineer a solution to the problem?



1

Innovator

21

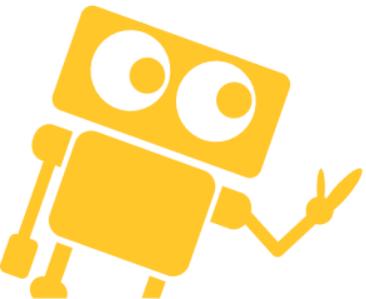
Points

LEGO®

Living in a LEGO House

Build a house made
only of LEGO®s.

MackinMaker





Materials:

- LEGO® Large Creative Brick Box
 - Paper and a pencil
-

Quick Start:

1. Gather some LEGO®s that are different shapes and sizes.
 2. Sketch out your own unique LEGO® house. What will it look like? What special features will it have?
 3. Build your house using only LEGO®s!
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Hints and Tips:

- For ideas, look at pictures of houses. What are some basic features that most houses have? Start by building the basics.
- When you are ready, you can get creative with your house design. What could you add to your house? How could you make it unique?

Extended Challenges

Social Studies: Build a model of a historical building or type of house specific to a region. Examples might include landmark buildings, an igloo, sod house, or temple.

Science: Problem solve with different types of LEGO®s on different types of houses. What holds up the best? What is the strongest? What did not work well?

English/Language Arts: Choose a house or location from a book, poem, or play to build with LEGO®s. You could also write a story about a fictional family that lives in the house you created.

