

Scaredy Robot is afraid of everything, including people.

Can you use Cubelets to make Scaredy Robot into a robot that runs away from your hand? What happens when we play with the "Direction" cube?

2

Scaredy Robot was on its way home but now it is very dark outside!

Can we build Scaredy Robot with something to help get it home safely in the dark?

Scaredy Robot got ALL the way home but now the lights are out!

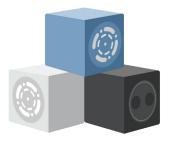
Could we make Scaredy Robot with a flashlight that knows when it's dark outside?
What do you think the "Sense"
cubes might do to help us solve this challenge?

Scaredy Robot is not just afraid of the dark, it is also afraid of falling off things and getting hurt!

How could we use our Cubelets to build Scaredy Robot so it knows **to stop** before it falls off edges? How we could use the "Distance" cube to help us? How could we use this to help people in real life?



Create a robot that moves like the hands on a clock.



6

Create something that reminds you of an animal.

What does it do that reminds you of that animal?



Make something using all of the cubes.

What does each cube do and how do they work together? What does this robot do and what makes it special? Can you use all the pieces again but this time make a DIFFERENT robot?



Cubetto



Start Cubetto on Y. Cubetto is lost but thankfully it has all of you as great friends!

Using the compass at the top, help Cubetto travel southeast to reach a letter. What letter will Cubetto reach?



Starting at Space E1 have Cubetto visit the other spaces with plants on them.

Start Cubetto on the mountain and head northeast to reach a letter. What letter will Cubetto reach?

Create your own story map or maze and have Cubetto journey through it!

Cubetto is ready to start a journey to become a fearless knight!

Our explorer needs to stop at the city for supplies to make it to the desert. Can you code Cubetto to start at the castle, go through the city square, and make it to the desert (square with a cactus)?

6

Thankfully our Cubetto made it to the desert, but deserts do not have much water.

Can we get Cubetto to pass through two squares with water, so our friend is not thirsty anymore?



Cubetto was at the city getting more supplies, and decided to pick apples and visit the friendly dragon that lives there!

Can we get Cubetto from the city to the apple tree using only 1 Command tile? Would a blue function button help us with this?







The new Zany Zoo is opening and we need help from our friends to create animals for our new zoo!

Can you help us make an animal that you would find in the jungle?

為於

2

Our new Zany Zoo will have a special bird exhibit.

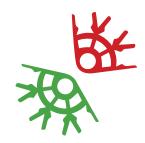
Can you create a bird for our avian exhibit?



Our friends asked for a petting zoo at our Zany Zoo. What kind of petting zoo animal could we create with our K'Nex? What makes an animal a good petting zoo creature?

Zany Zoo needs a creepy crawly exhibit. What kind of fun bug can we make for our exhibit? Why did you pick this bug and what makes it special?

Build a pet. What makes this animal a good pet?



6

Create an animal that walks on land with four legs!

What are the differences between the animal that walks on legs and the animal that flies?

It's time to get Wild!

Take TWO different animals and combine different parts to create a BRAND NEW ANIMAL! (a bird and elephant would be an elephird). Why did you pick those two animals?

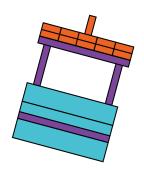






We are building a brand new house and need help with it!

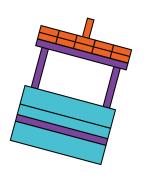
First, can we make a house with our KEVA planks?



__

Our new house is going to be so empty, but we can fix that.

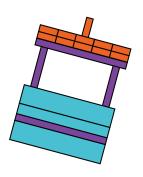
Can we make a piece of furniture for our new house?



Our new house is going to need stairs to get from the outside to the door. What can we build?

Our new house is going to be the best but it feels lonely.

Can you make a person or pet to put in our house?



Make something that is a form of transportation.

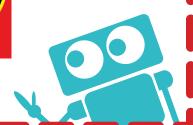
Make something that starts with the letter M.



Make something you would find in a park or playground.







We need to create a LEGO® park so all our friends can have a place to play. Our LEGO® park has a pond but we can't get across it.

Can you build something to get us across our pond?



2

Our LEGO® park needs some flora and fauna (plants and animals)!

Can you build a plant out of LEGO bricks that stands up by itself and an animal you would find in the park?

Our LEGO® park is going to be such a great place to visit!

Build something that would be fun to play with in the park!

Our LEGO® park would be a great place to have a picnic!

Let's make something to eat at our picnic!



Build the tallest tower you can (What makes a tower sturdy?).



6

Make a boat out of LEGO® bricks and see if it really floats in the water!



Let's use our LEGO® bricks to make a new invention that would help someone.

What makes this invention helpful?







We've entered a magical kingdom that needs our help! The friendly giant accidentally knocked down the castle of our kingdom.

Can we help the giant and make a new castle?

7

When heading to the festival in the kingdom, we saw that the King and Queen's horse-drawn carriage was broken and a wheel fell off!

Can we build another wheel for the carriage? If we put two circles together, what would that give us? This poor kingdom is having a terrible, horrible, no good, very bad day! Now the kingdom's mascot, the unicorn, won't come out of his house. It is very lonely and wants a magical friend.

Can we make another magical creature to be friends with our unicorn?

As night falls on our magical kingdom, it seems the stars fell asleep and did not come out to shine. It's very dark outside.

Can we make a star to light the sky so we can see the kingdom?

Make a bridge.



6

Build a ball with our Magformers.



Make something that goes in the air or water.

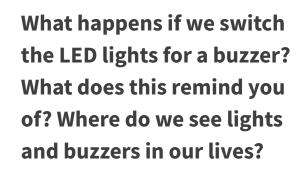




Make a simple circuit (a simple circuit is way to get the energy to flow from one place to another). We just need two balls of our colored dough (conductive dough), the battery and the LED light.

Connect the wires on the battery to each ball of dough. Make sure our balls aren't touching. You figure out the rest!

What happens when the two balls of dough touch? Why does the LED stop working? What happens if we put the white dough (insulating dough) in between the lumps?





Let's try to make a special circuit (parallel circuit). Create three balls of different colored dough and put the white dough in between the colors. Take two LED lights and put one between Color 1 & Color 2. Now put an LED from Color 2 to Color 3.

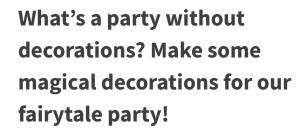
What do you notice about the lights? Why do you think it's not as bright?

The fairytale creatures are assembling for a party but some of the guests got lost on the way.

Can you create a creature or fairytale character to join the party?

6

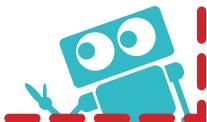
The fairytale party is almost starting, and the enchanted forest animals have no way to get to the party. Create something with lights to get them to the party that lights their way in the dark.





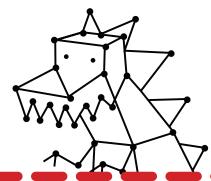






Use your Strawbees to design a 2D triangle and then design a 3D pyramid.

What's different in how we design in 2D and 3D?



Create another 3D shape.



Design a ride or piece of playground equipment.



Can you design something that would hold an egg and keep it from breaking if dropped?

We're a new team of superheroes (Super STEAM Team) and we have to help our community. Angie Architect, one of our **Super STEAM Team members, has to help** the community by building a bridge that was destroyed in a storm.

Can you help Angie Architect build a bridge that will hold a book without breaking?

Andrew Art wants to help the new Art Center in our community that's opening. He's going to make a new piece of art.

Can you help him create a piece of art for opening day of the Art Center?

Molly Maker saw that the new community center forgot to buy toys and games for its after-school program!

Molly needs your help to save the day by helping create a toy or game for the after-school program.







Scaredy Robot is afraid of everything, including people.

Can you use Cubelets to make Scaredy Robot into a robot that runs away from your hand? What happens when we play with the "Direction" cube?

2

Scaredy Robot was on its way home but now it is very dark outside!

Can we build Scaredy Robot with something to help get it home safely in the dark?

Scaredy Robot got ALL the way home but now the lights are out!

Could we make Scaredy Robot with a flashlight that knows when it's dark outside?
What do you think the "Sense"
cubes might do to help us solve this challenge?

Scaredy Robot is not just afraid of the dark it is also afraid of falling off things and getting hurt!

How could we use our Cubelets to build Scaredy Robot so it knows **to stop** before it falls off edges? How we could use the "Distance" cube to help us? How could we use this to help people in real life?



Create a robot that moves like the hands on a clock.



6

Create something that reminds you of an animal.

What does it do that reminds you of that animal?



Make something using all of the cubes.

What does each cube do and how do they work together? What does this robot do it and what makes it special? Can you use all the pieces again but this time make a DIFFERENT robot?



Cubetto



Start Cubetto on Y. Cubetto is lost but thankfully it has all of you as great friends!

Using the compass at the top, help Cubetto travel southeast to reach a letter. What letter will Cubetto reach?



Start at Space E1 and have Cubetto visit the other spaces with plants on them.

Start Cubetto on the mountain and head northeast to reach a letter. What letter will Cubetto reach?



Create your own story map or maze and have Cubetto journey through it!

Cubetto is ready to start a journey to become a fearless knight!

Starting Cubetto on the castle, our explorer first needs to make it to the desert but needs to stop at the city for supplies. Can you code Cubetto to make it to the desert (square with a cactus) by first going through the city square?

6

Thankfully our Cubetto made it to the desert but deserts do not have much water.

Can we get Cubetto to pass through two squares with water so our friend is not thirsty anymore?



Cubetto was at the city getting more supplies and decided to pick apples and visit the friendly dragon that lives there!

Can we get Cubetto from the city to the apple tree using only 1 Command tile? (Would a blue function button help us with this?)







The new Zany Zoo is opening and we need help from our friends to create animals for our new zoo!

Can you help us make an animal that you would find in the jungle?

2000

2

Our new Zany Zoo is going to have a special bird exhibit.

Can you create a bird for our avian exhibit?



Our friends asked for a petting zoo at our Zany Zoo, what kind of petting zoo animal could we create with our K'Nex? What makes an animal a good petting zoo creature?

Zany Zoo needs a creepy crawly exhibit, what kind of fun bug can we make for our exhibit? Why did you pick this bug and what makes it special?

Build a pet. What makes this animal a good pet?



6

Create an animal that walks on land with four legs!

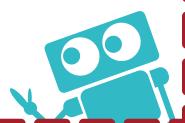
What are the differences between the animal that walks on legs and the animal that flies?

It's time to get Wild!

Take TWO different animals and combine different parts to create a BRAND NEW ANIMAL! (a bird and elephant would be an elephird). Why did you pick those two animals?

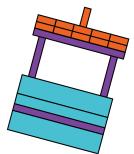






We're building a very special city called Tinker Town and we need some very special architects to help us!

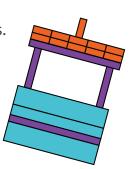
The first thing Tinker Town needs is a home. Can you build a home using KEVA planks?



2

Our new city needs a skyscraper!

Build the tallest building you can. Try building the skyscraper in different ways. What makes the building more sturdy?



Tinker Town is getting so big, we will need a bridge to get our people across the city.

With only six planks touching the table, make the biggest bridge you can!

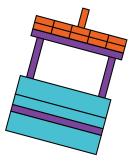
Tinker Town needs a place for the kids of the city to have fun, so we are going to build a playground.

Can you build something that you would find in a playground?

Create a marble run with your KEVA planks.

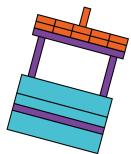
6

Build something you would sit on.



Sometimes people live in areas that flood, but it's okay because we can build them houses in special ways to avoid the water.

Can you build a house that would not flood? What makes this house special? How do we make it so that the house would be ABOVE the water?









We need to create a LEGO® park so all our friends can have a fun place to play. Our LEGO® park has a pond but we can't get across it.

Can you build something to get us across our pond?



2

Our LEGO® park needs some flora and fauna (plants and animals)!

Can you build a plant out of LEGO bricks that stands up by itself and an animal you would find in the park?

Our LEGO® park is going to be such a great place to visit!

Build something that would be fun to play with in the park!

I bet our LEGO® park would be a great place to have a picnic!

Let's make something to eat at our picnic!



Build the tallest tower you can (What makes a tower sturdy?).



6

Make a boat out of LEGO® bricks and see if it really floats in the water!



Let's use our LEGO® bricks to make a new invention that would help someone.

What makes this invention helpful?







We've entered a magical kingdom that needs our help! The friendly giant accidentally knocked down the castle of our kingdom.

Can we help the giant and make a new castle?

2

When heading to the festival in the kingdom we saw that the King and Queen's horse-drawn carriage was broken and a wheel fell off!

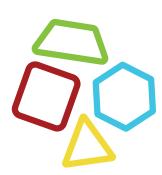
Can we build another wheel for the carriage? (If we put two circles together what would that give us?) This poor kingdom is having a terrible, horrible, no good, very bad day! Now the kingdom's mascot, the unicorn, won't come out of his house. It is very lonely and wants a magical friend.

Can we make another magical creature to be friends with our unicorn?

As night falls on our magical kingdom it seems the stars fell asleep and did not come out to shine. It's very dark outside.

Can we make a star to light the sky so we can see the kingdom?





6

Build a ball with our Magformers.



Make something that goes in the air or water.





Ozobot is a robot who reads colors like we read letters. Take the black marker and draw a thick line. Put Ozobot on the line and press start. What happens to Ozobot?

b

Ozobot has sensors that are like our eyes. Following the picture above use the colors blue, green and then red and watch Ozobot go watch the head change colors as it reads.

What does it do differently? How are the colors like different letters?



The order of the colors matter. Try having Ozobot read green /red/green / red and then have it go backwards to read red/green /red/green.

What was different this time?



Experiment with the different colors. Watch what happens when we put different colors together to make new movements.

Ozobot likes to throw parties to celebrate with its friends. Ozobot has to introduce all of its new friends.

Let's write out our names in thick letters and let Ozobot learn our names by "reading" the line with its sensors.

Now we're friends and the party can start.

Ozobot likes to do races and competitions at parties.

Create different tracks and race the two Ozobots. Which finishes first? What made one finish faster?

What is a party without dancing? Our friend Ozobot LOVES to dance.

Use the different colors and create different dance moves for Ozobot. What would you call them?

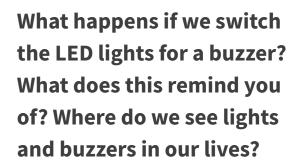




Make a simple circuit (a simple circuit is way to get the energy to flow from one place to another). We just need two balls of our colored dough (conductive dough), the battery and the LED light.

Connect the wires on the battery to each ball of dough. Make sure our balls aren't touching. You figure out the rest!

What happens when the two balls of dough touch? Why does the LED stop working? What happens if we put the white dough (insulating dough) in between the lumps?





Let's try and make a special circuit (parallel circuit). Create three balls of different colored dough and put the white dough in between the colors. Take two LED lights and put one between Color 1 & Color 2. Now put an LED from Color 2 to Color 3.

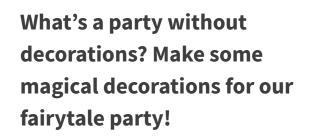
What do you notice about the lights? Why do you think it's not as bright?

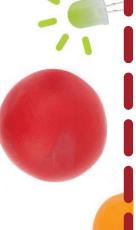
The fairytale creatures are assembling for a party but some of the guests got lost on the way.

Can you create a creature or fairytale character to join the party?

6

The fairytale party is almost starting and the enchanted forest animals have no way to get to the party. Create something to get them to the party with lights to light the way in the dark.





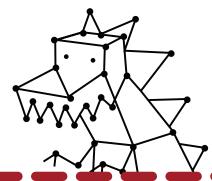




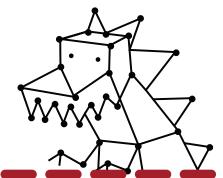


Use your Strawbees to design a 2D triangle and then design a 3D pyramid.

What's different in how we design in 2D vs 3D?



Create another 3D shape.



Design a ride or piece of playground equipment.



Can you design something that would hold an egg and keep it from breaking, if dropped?

We're a new team of superheroes (Super STEAM Team) and we have to help our community. Angie Architect, one of our Super STEAM Team member, has to help the community by building a bridge that was destroyed in a storm.

Can you help Angie Architect build a bridge that will hold a book without breaking?

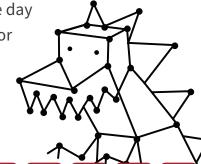
(

Andrew Art wants to help the new Art Center in our community that's opening. He's going to make a new piece of art.

Can you help him create a piece of art for opening day of the Art Center?

Molly Maker saw that the new community center forgot to buy toys and games for its after-school program!

Molly needs your help to save the day by helping create a toy or game for the after school program.







Experiment with the race wheels (smooth) and the race tires.

Why would you want to use one type over the other?

2

Put a pile of LEGO® bricks on the table and experiment to see which vehicle will get over the obstacle the easiest.

Before you test your experiment, what do you hypothesize (guess) the best vehicle will be in overcoming obstacles and why? Were the results the same as your guess?



Which vehicle do you think will go the fastest? Why do you think that will be the fastest vehicle?

We are mechanics at Maker Motorway and we have to help with some of the vehicles.

Our first racer needs a vehicle that's meant for racing.

Can we build the dragster?



Maker Motorway doesn't just have regular racing, but they also have tracks in the desert! Let's build the dune buggy and test it out at Maker Motorway.

6

There was a crash at Maker Motorway! Oh no! Can we make a bulldozer to help push the debris out of the way so the races can continue at Maker Motorway?

Maker Motorway is hosting the Imagination 500, a special race for creativity and imagination. Let's create a vehicle to enter into the Imagination 500.

What makes it special and unique? Where would you drive this vehicle (you can use LEGO® bricks to help build with your Motorblox).





Practice makes perfect! Practice writing your name. Write it big, write it small, write it up and down.

2

Shapes, shapes, everywhere. Draw all the shapes you see in the room.



It's all adding up. Let's do some math fact practice on the board. Make an addition problem for a friend and have them solve it before it disappears!

Draw a setting from your favorite book.



Create a maze and have a friend try to find their way through it.



I spy! Spy something in the room and describe it to a friend and see if they can draw it.



How are you feeling? Show us your feelings by drawing an emoji.





Grab some straws and see how many different shapes you can make from connecting straws with Play-Doh.



Monster mash! Create a new monster from your Play-Doh. What makes them spooky?



Play-Doh selfie! Grab a bowl and place it upside down on a table. Now use the sides to create your face. Make sure you add hair, skin, eyes, and anything else you think you need for your selfie. Smile!

Chicka chicka boom boom! How many different letters can you make from your Play-Doh?



We will rock you! Gather some rocks and use rocks and Play-Doh to build a house. How strong can you make your house?

6

Play-Doh imprints. What is the texture or pattern of different things you find around your classroom? How are they the same? How are they different?



Play-Doh writing. Flatten some Play-Doh out on the table or your desk. Take a stick or toothpick and write words on the Play-Doh.





Let's relax and recharge. Help Cody by creating an algorithm to relax and recharge. What exercises do you do to recharge your mind and body?

Introduce yourself. Create an algorithm that helps people get to know more about you. What do you like to do? How can you code that?

Design a path that you want a friend to follow. Have them use the coding blocks to create an algorithm to complete the path.





Let's play a game! Create an algorithm and then have a friend act out what you created. Dance party! Let's code our own dance party! Use the blocks and create a dance party algorithm. Who knows the Macarena?

Ь

Sequence your morning. Write down what you do in the morning from when you wake up to when you get to school.

Design an algorithm that matches. Have a friend check to see if they both match and challenge your friend to do one, too.

How do you make a peanut butter-and-jelly sandwich?

Create an algorithm for making a PB & J and have a friend follow the steps to see if it works.









2

We bought a zoo! Can you create a bird for our exhibit?



Our zoo has a special place just for bugs. Can you create a bug that would want to be in our zoo?



Create an animal that has more than 2 legs but less than 6 legs.





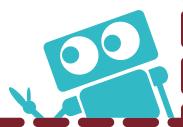
* A STATE OF THE S

Design something that you can wear that gives you special superpowers. What is your superpower? How does it help you?

Design a tool that you can use at home or school. What is your tool? What does it do?



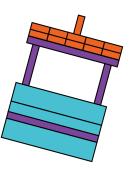




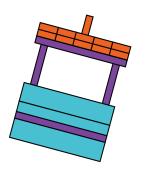
Design and build a tower that can hold an apple.

2

Create a house that trolls might want to live in.



Build a bridge.



Design a maze for a marble to go through.

Build something that you can fit into.

_

Create an animal that you would find at the zoo.

Design a piece of furniture for a doll.





Let's play a game. Build a LEGO® tic-tac-toe board and challenge a friend!



_

Build something with 10 LEGO®s and then give directions to a friend to have them see if they can build the same thing without seeing what you built.

Create something that has a pattern.



Build your name with LEGO®s.

Create a model of your classroom.





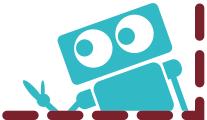
Build something that will hold pencils on your desk.



Create the main character from a book you have read.







Connect 2 pieces of cardboard with the scru-driver and a scru. How does it move?

What could you make that you would need the pieces to move like that?

2

3..2..1..blast off! Can you create a rocket using the Makedo connectors?

Cup critters! Grab a paper coffee cup. Look in the recyclable bin and grab something that has already been used; just wash it out.

Create an animal or make-believe critter out of the cup. Share it with your friends. What will you call it? Create a mask that you can wear as a disguise. What Makedo pieces will you use?

Design a new mailbox. Can it open and close to protect your mail? What special features would you want on your mailbox?

Create an instrument. Does it make noise?

Design something that you would need in the ocean. Why would you need this item?



Draw a map of your room. Make a path that looks like the map for the robot mouse to follow. Can you get him to enter and get to your bed?

Design a maze for a friend. What are the least number of steps it takes for the robot mouse to get to the cheese? What are the most number of steps?

How many different shapes can you code the robot mouse to create?
What are they?

Put the letters of your name on different parts of the path. Code the robot mouse to correctly spell your name. Try it with different letters. What words can you code the robot mouse to make?

Design a path that would be like the one the Big Bad Wolf took to the 3 Little Pigs' houses. Code the robot mouse to huff and puff along the way and blow down the houses. Retell the story as you go.

Design a path and put numbers on the path. Code the robot mouse to only go on a path of even numbers then do a path of odd numbers. Create a path for a partner. Only give verbal directions by using the words left, right, forward and backward to see if the partner can get the robot mouse where you want it to end up.





Design an airplane and time how long it stays in the air. What's the longest time you can keep it in flight?



Design an airplane that can fly the farthest distance. Why do you think some designs fly farther than others?



Try creating your airplane with different types of paper. What differences do you notice in the flight of the airplane?



Airplanes have to be able to carry cargo. Can you design an airplane that can carry the most cargo?

(Use LEGOs or coins as your cargo.)



Put an 'X' on the floor as your target or tape a square down on the floor.

See how many times you can get your airplane to land on the target out of 10 tries. Challenge a friend!



6

Design a paper airplane and add a paperclip to one of the wings. What happens? Attach a paperclip to the other wing. What do you notice?



Design a paper airplane and bend the angle of the wings down and fly it. What do you notice?

Now bend the wings up and fly it. What is different about the flight when you change the way you bend the wings?

