

This Inventor's Log belongs to _____

Top tips to get inventing!



Follow that thought

Try to stop thinking for a minute. It's pretty much impossible!

Our brains are constantly taking information in and working out how to record it and how it connects with other things we know.

So trust your brain and try to catch a thought and see where it takes you!

So many ideas!

Keep the ideas coming. It doesn't matter if they're not great, but allowing yourself to play with an idea might lead you to another idea, or might just get it out of your brain to make room for more ideas!

No problem too small

It might be how to help a snail go faster, how to water a cactus or how to protect a ladybug from the rain – no problem is too small to capture your inventive imagination!

Who needs your help?

Thinking about who your invention is for is a great place to start.

It could be for someone in your family or an animal you spot while you're out and about. Imagine what they like or dislike, what they might find difficult or boring. How can you help them?

Doodle away

You don't always need to know what you're drawing....

In fact, some people like to doodle and then imagine what they can see in their doodle!

No limits

And of course, the opposite is also true – there is no problem too big to try and invent a solution either!

If you worry about how to reduce the pollution in the atmosphere or how to make travel faster, safer and non-polluting, then have a go. We need all kinds of ideas to help our planet stay green!

Break the rules

New inventions happen when we try to think or do things differently – in other words, when we break the rules. So forget how things are supposed to work and make them happen your own way!

What might seem impossible today could well happen in the not-so-distant future.



Part 1

Introduction to Inventing



Office of odd

Becoming a great inventor is all about having a wild imagination! Take a look at these odd objects and think up what they could be used for. Who might need to use these inventions? And what name would you give them? Remember, there are no wrong answers!



Give it a name! _____

Who might use this invention? _____

What would they use it for? _____



Give it a name! _____

Who might use this invention? _____

What would they use it for? _____



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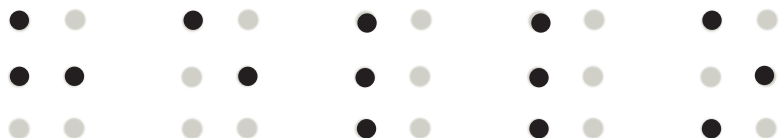
Braille investigator

What is braille?

Braille is a system of raised dots that blind people can read. Braille is read by touch, using your fingers to feel the letters and symbols.

The braille alphabet

Each letter of the alphabet, punctuation mark or number has its own special symbol or symbols. Each symbol is made by arranging raised dots within a six-dot braille cell.

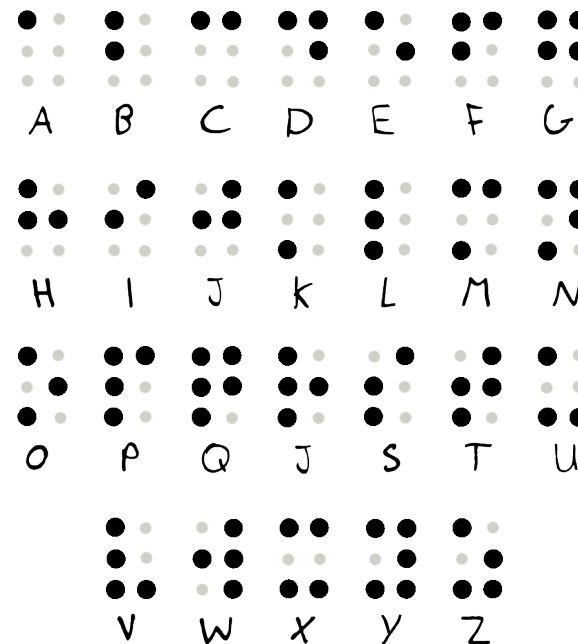


Can you work out what this says in braille? _____

Now write your name in braille!



Braille was invented
by Louis Braille when
he was only 15
years old!



Problem detection comic

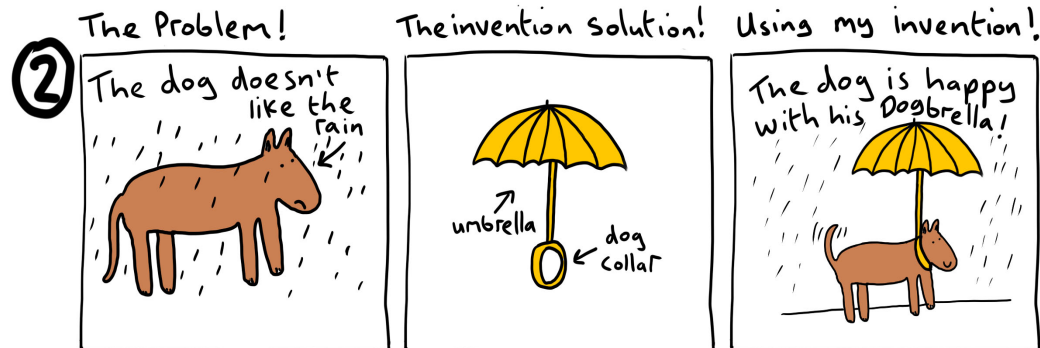
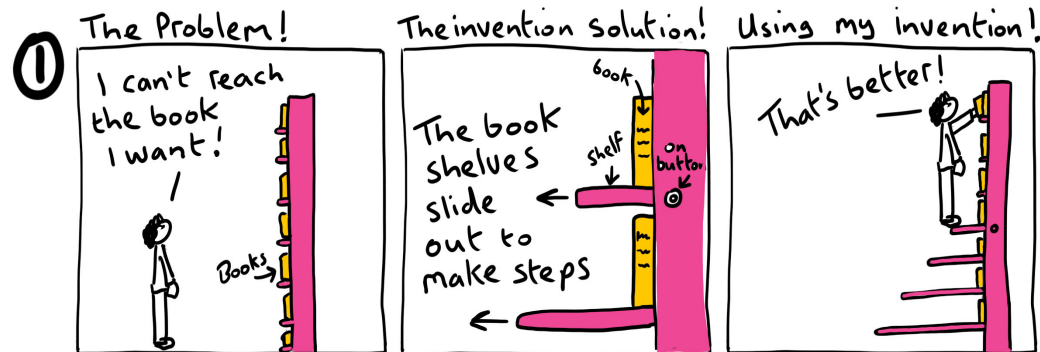
Thinking up a short story can help to come up with new invention ideas. Think about the beginning, the middle, and the end.

Beginning - In the beginning, there's a problem. Who has the problem and what are they finding difficult or annoying to do?

Middle - Think about a way to solve the problem. This is where you come up with your invention idea. The solution could be fun, unique, clever or totally bonkers!

End - Show how the problem was solved and how your invention is used.

Take a look at these example comics and then try drawing your own on the next page.

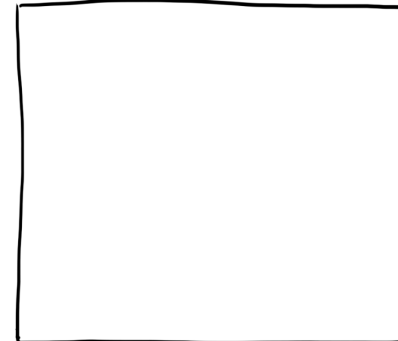
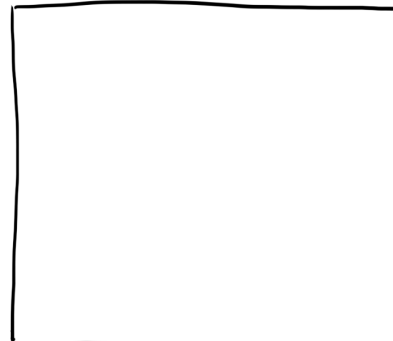


Now try
these for
yourself!

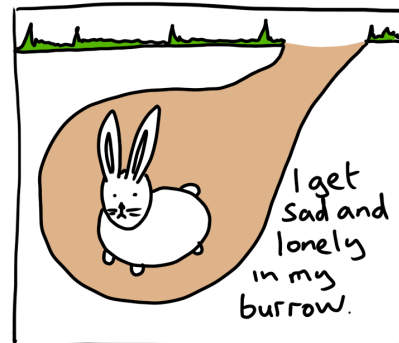
The Problem!



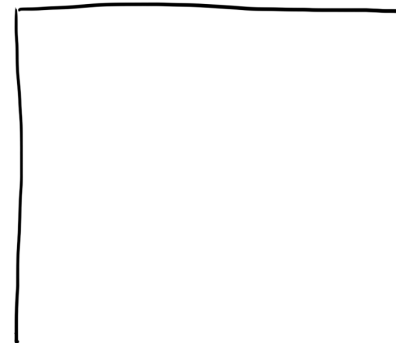
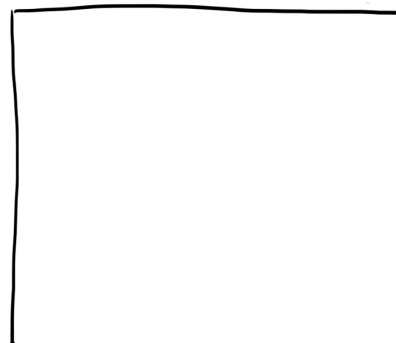
The invention solution! Using my invention!



The Problem!



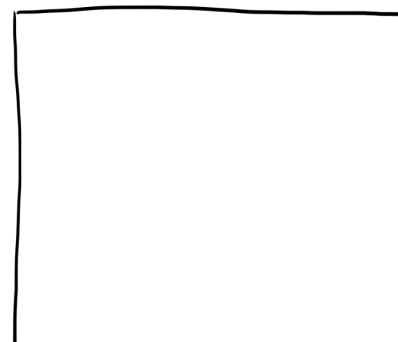
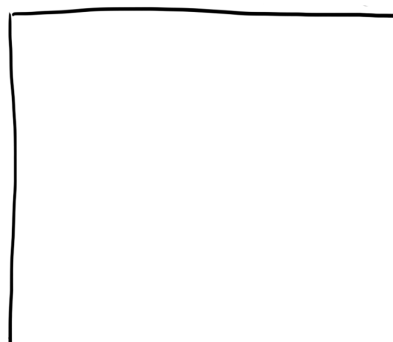
The invention solution! Using my invention!



The Problem!



The invention solution! Using my invention!



Helping Hand

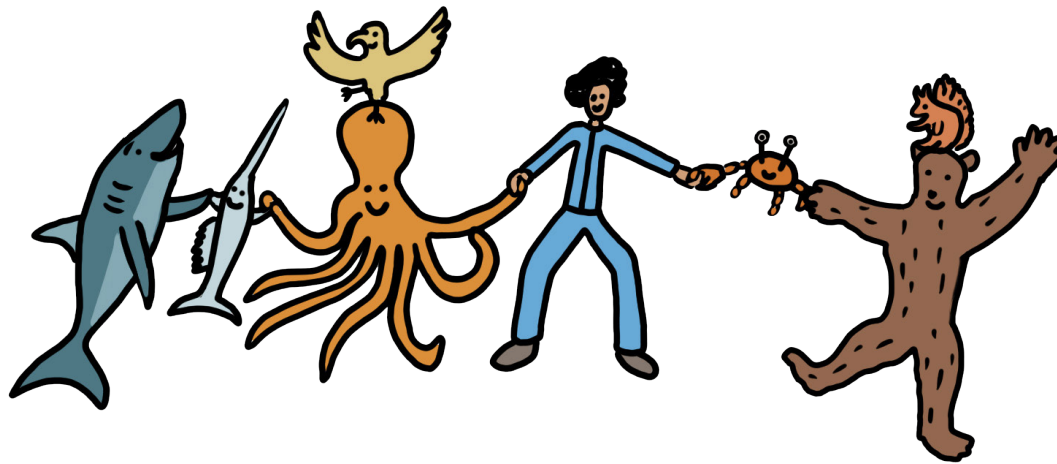
Everybody's different! Write down what you think these different people, animals, or aliens might need a helping hand with.

Here's an example!



Part 2

A world of animals



A place called home



Choose an animal that you might find in a town, city, or home My animal is

Describe where your animal might like to sleep _____

Draw a new home for your animal made from recycled materials. *Choose from the ones on the sheet or make up your own!*



Ladder



Umbrella



Toothbrush



Bricks

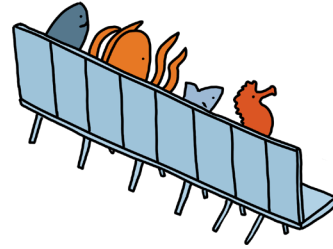


Car tires



Watering can

Animal match



Match the animal with the fact!

Use the Animal Profile Pack to help



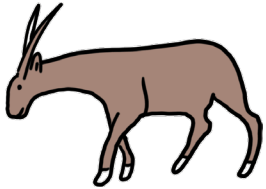
Bengal tiger

Can survive without water for long periods



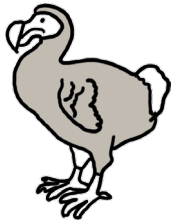
Monarch butterfly

Migrates for thousands of miles



Oryx antelope

Glow in the dark!



Dodo

Has a stripe pattern that's completely unique



Moon jellyfish

Is extinct!

Wildlife Profiler

A large, empty rectangular box with a yellow border, intended for drawing an animal.

Draw your animal here



I am a _____

I live in _____

I love to eat _____

Use this profiler to capture information about an animal that needs protecting!

What are my animal superpowers?

What threats or dangers do I need to look out for?

What ways could you help me survive or thrive?

Zoo explorer

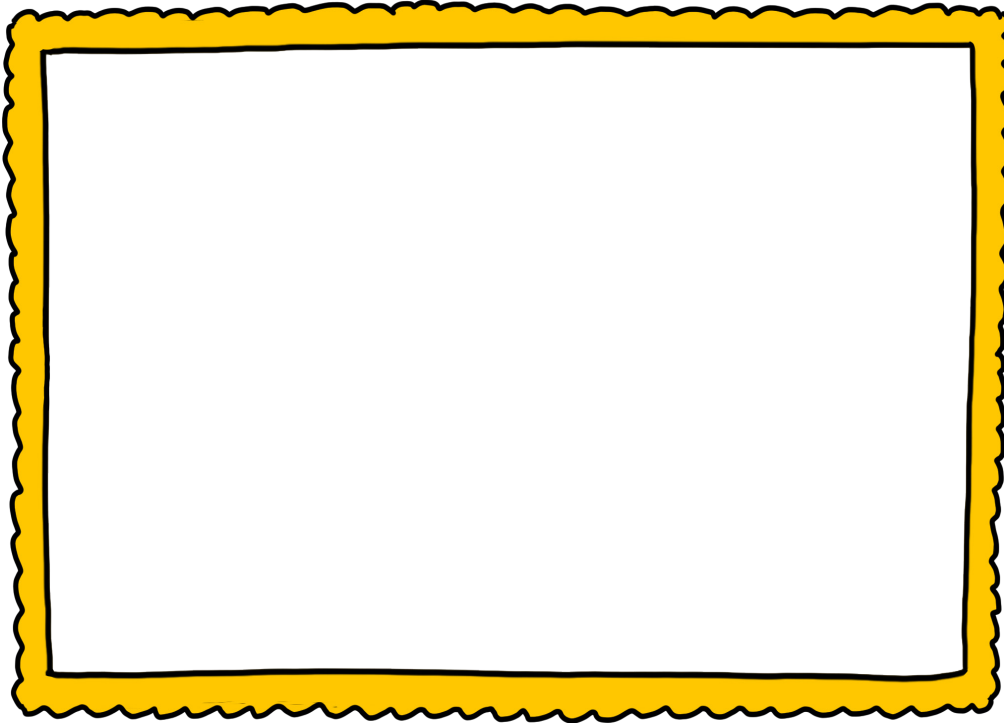


Watch the Detroit Zoo videos at misd.littleinventors.org/challenges/wild-ideas before completing this activity sheet

What new animal did you see in the videos? _____

(If you didn't see a new animal write one you've never seen in the wild)

What did you learn about them? _____



Draw your animal here

Who would you call on at the zoo for help to complete these jobs?

A red panda needs an X-ray

A giraffe needs to practice co-operative care for a hoof trim

An aardvark needs feeding

Which of the careers you've written down would you most like to try? Circle it!

Comic creations

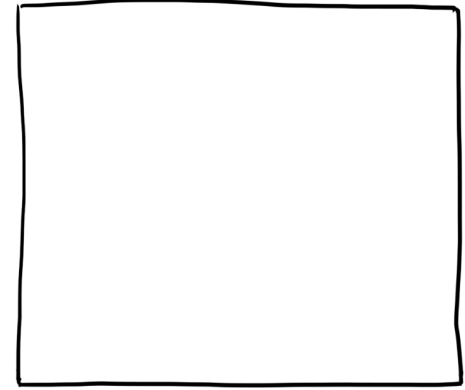
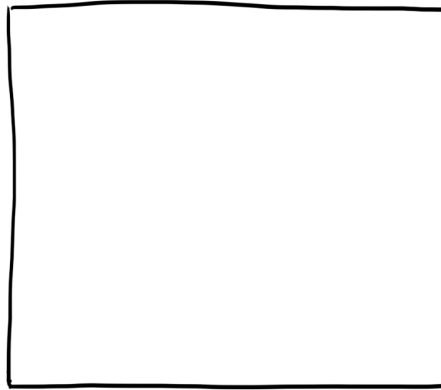
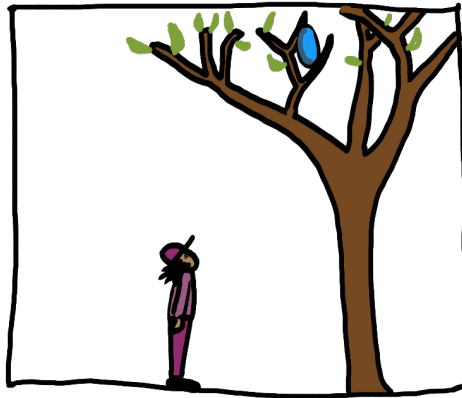
Think about animal adaptations. Can you use an animal's adaptation to help solve these human problems?

Think about different animal superpowers that you could use. Be creative, think differently from your classmates!

The Problem!

The invention solution! Using my invention!

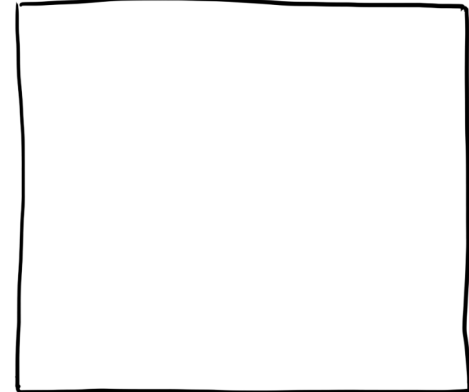
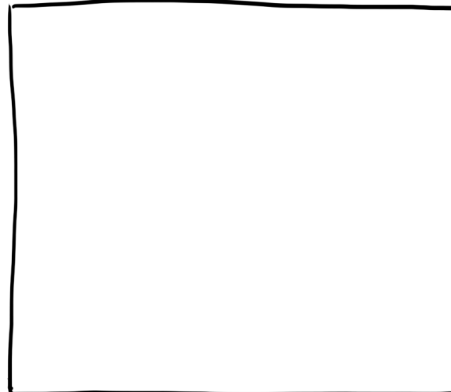
Tyson's frisbee is stuck in a tall tree



The Problem!

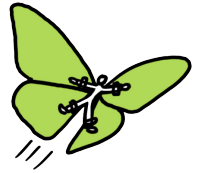
The invention solution! Using my invention!

Sally can't find her way in the dark!

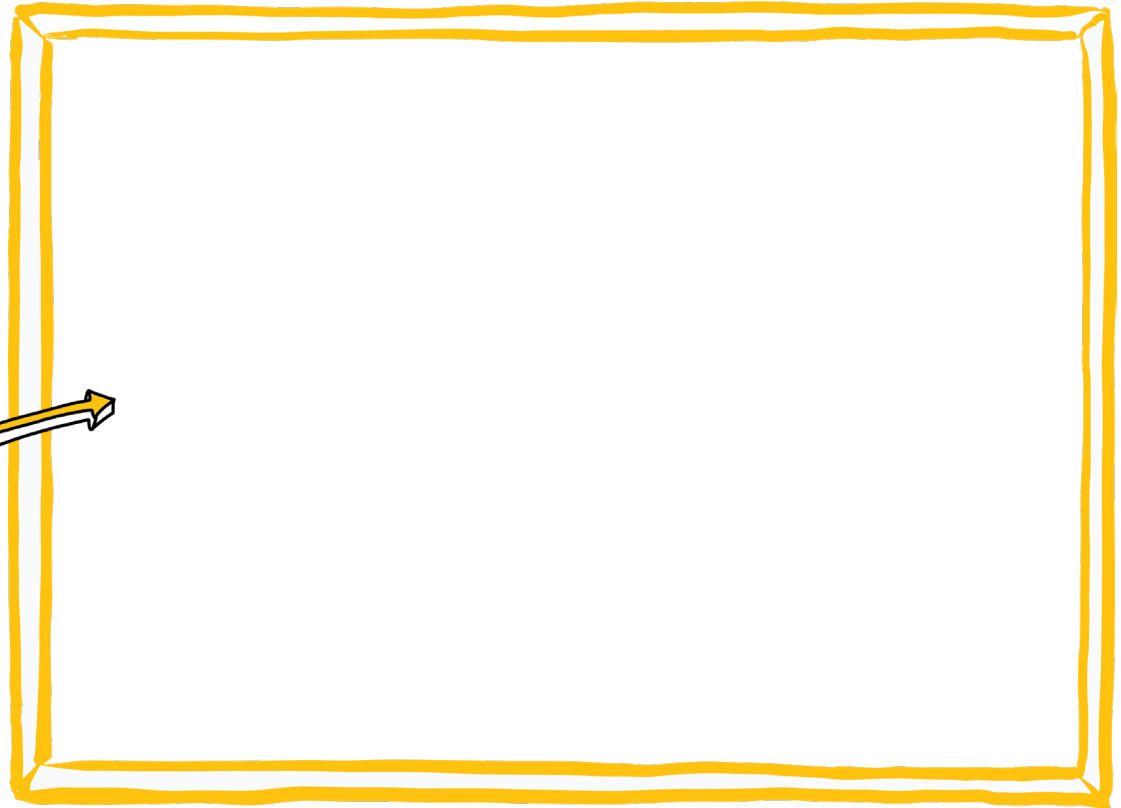
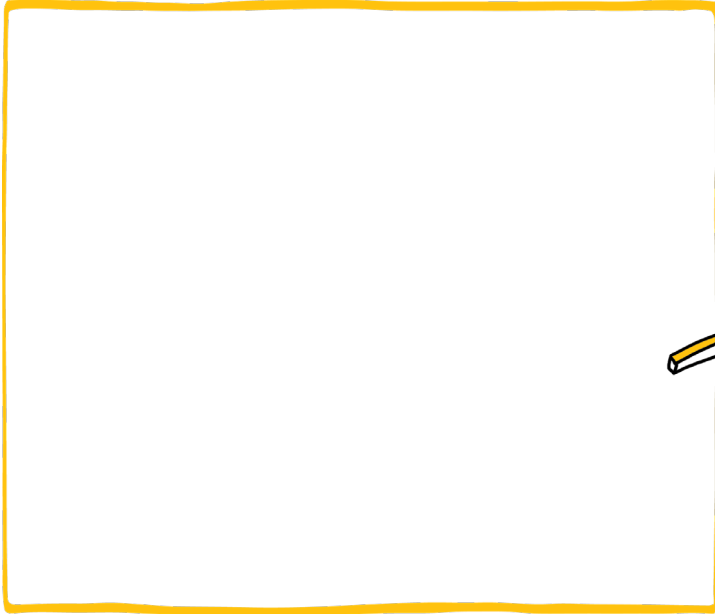


Fly like a bird!

Using nature as inspiration is known as **Biomimicry**



Draw your favorite animal in the box



How does it move? _____

How does it stay warm or cool? _____

Does it have any other special features that make it unique? _____

What could you invent that is inspired by the special characteristics of your animal?

Think of clothing, buildings, transport or anything else!

Write or draw your ideas in the box above.

Your day in plastic

Think of a typical day when you or someone around you uses plastic things. Write down what the plastic thing is, then think of what could be used instead.

In the morning

Think about what you use in the bathroom, kitchen, on the way to school

During the day

Think about school, lunch, playing, what you wear

During the evening

Think about dinner, technology, pets, sleep

When travelling

Think of how to go places, what you need

Materials log

What materials are the things you've listed made from?

Jot them down here!

-
-
-
-
-
-
-
-



Material Investigator



Identify materials in your list that are:

Biodegradable - put a flower next to them

Recyclable - put a triangle next to them



Extra challenge!

Can you find out what the materials in your list are made from originally? I'll give you an example to get started -

Paper is made From trees

How about going even further and trying to find out where those raw materials might be sourced? Or have a guess!

What's the story?

Write a story about an invention that helps take care of an animal. Who needs help, what's the problem, how did the invention help?



Think about the characters in your story, who are they and why might they need your invention?

Beginning. How does it start? Where is it set?

Middle. What is the problem that needs solving?

End. How could your invention help? What happens next?

My invention drawing sheets



First name _____ Age _____

School _____

Draw your invention here!

Use a black pen, add colors and labels



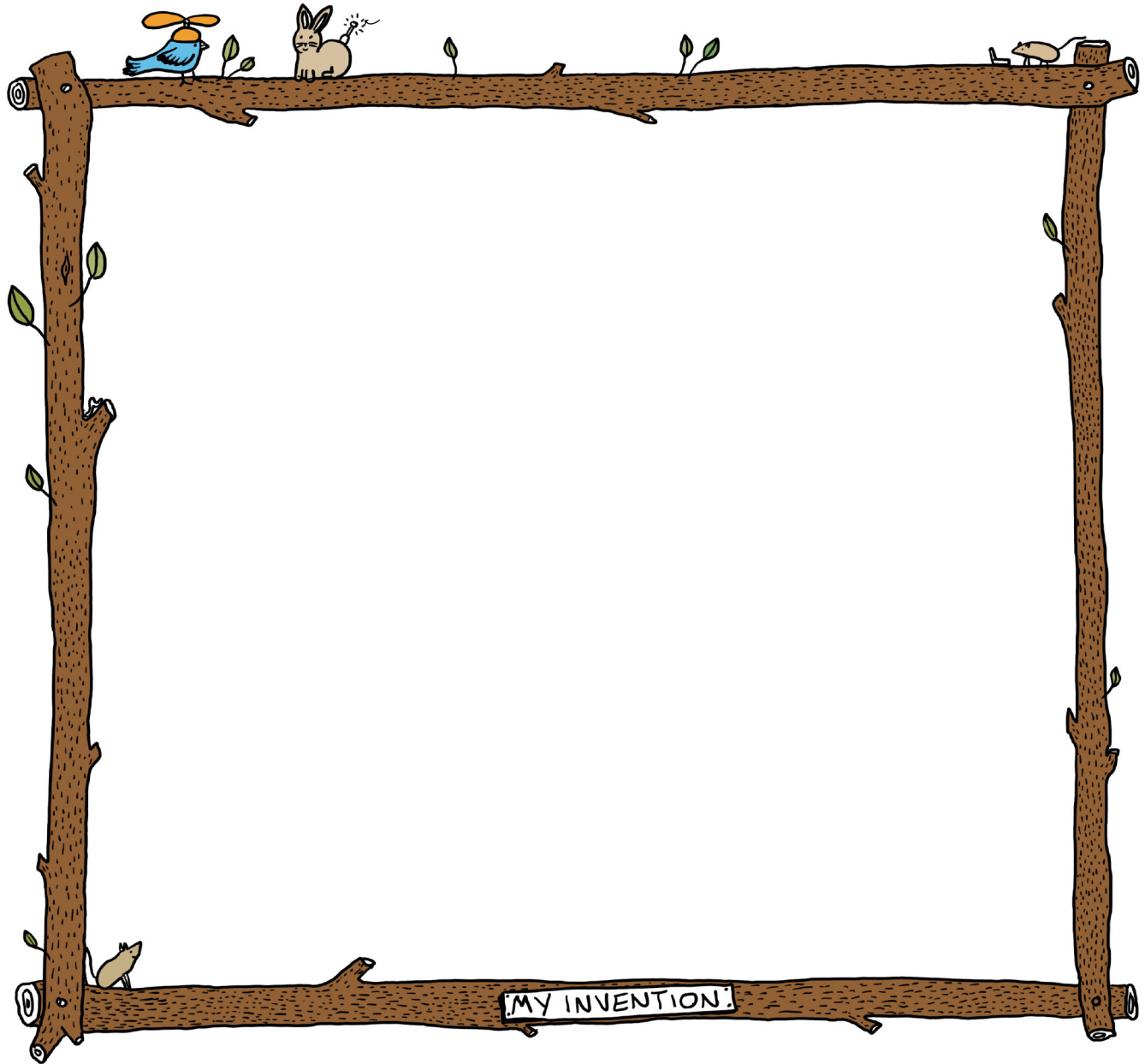
My invention is called _____

Who/what is your invention for?

What does it do?

How does it work?

Anything else you want to tell us?



Upload your idea at misd.littleinventors.org to get feedback.
And who knows, it could be chosen to be made real!



First name _____ Age _____

School _____

Draw your invention here!

Use a black pen, add colors and labels



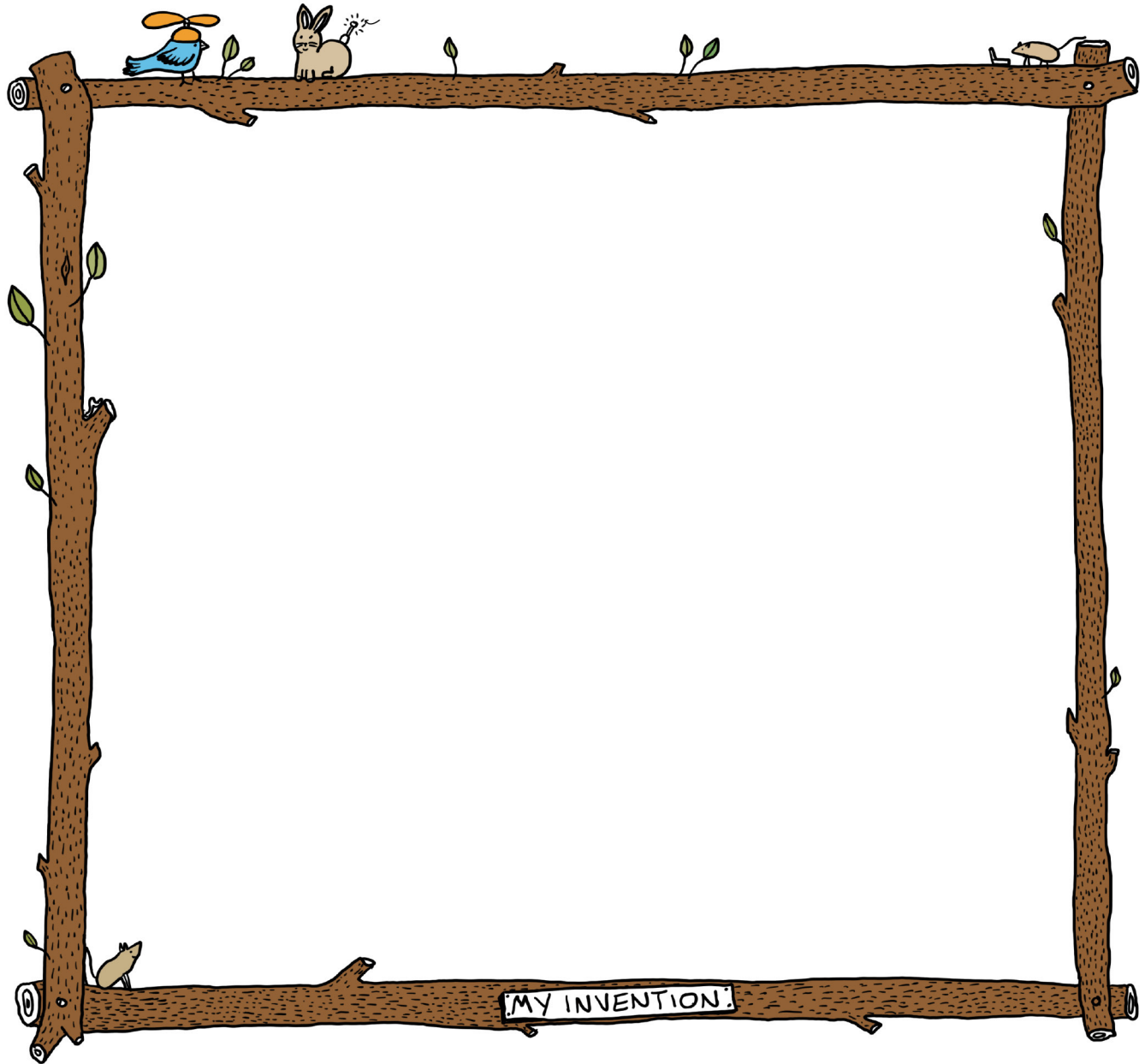
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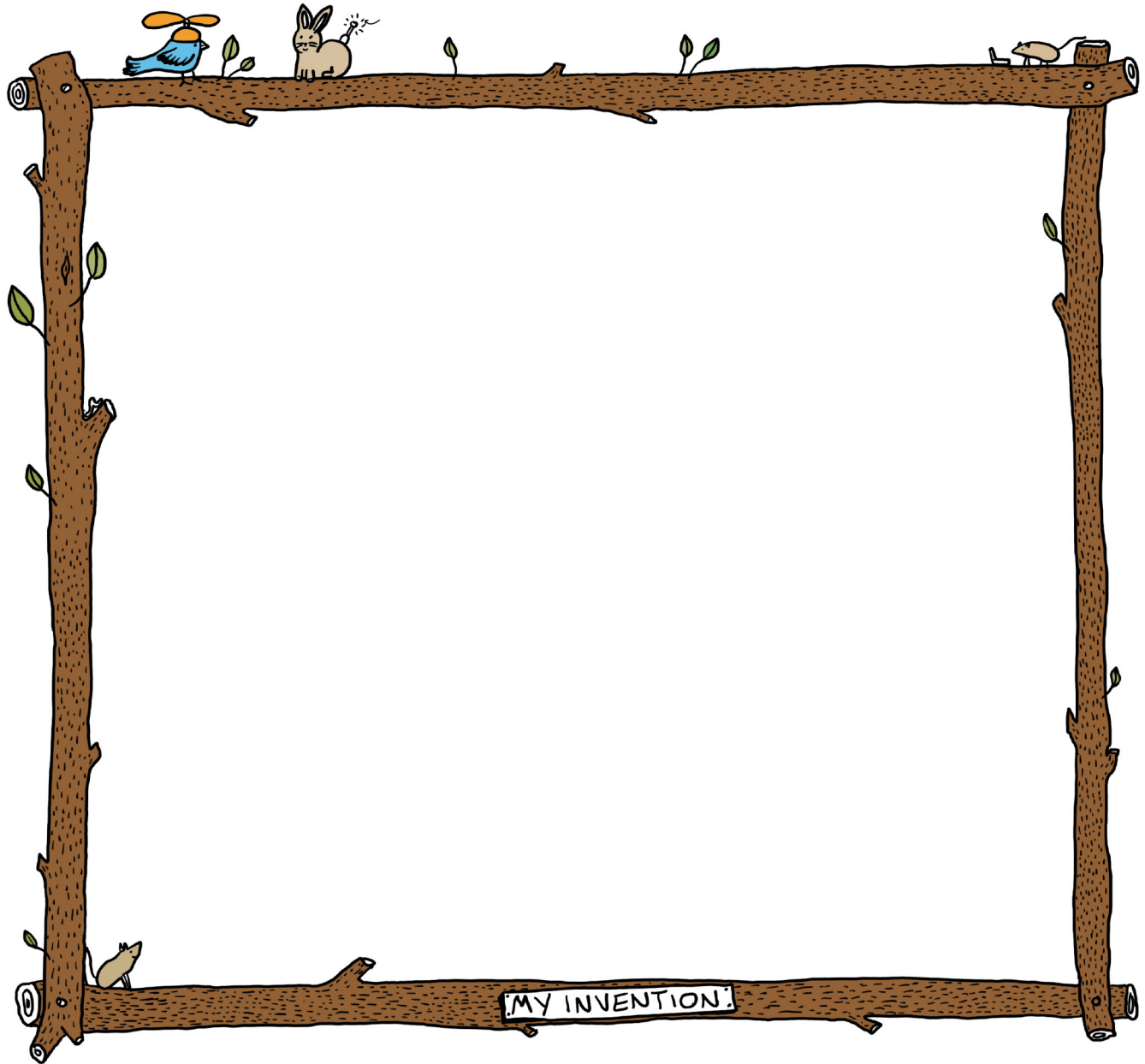
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