

Maker Challenge!

By designer Jude Pullen



Calling all Little Inventors!

Nature is the mother of invention and we can get so much inspiration from it!

Take a walk to a local park or green space or explore your own garden, see what interesting things that you can collect that are natural or man-made for making your invention. This could be leaves or sticks (ask an adult before picking up anything that is man-made to make sure it is safe to do so). If you can't go out to do this, take an imaginary walk and think about what you might find.

Jude's invention challenge



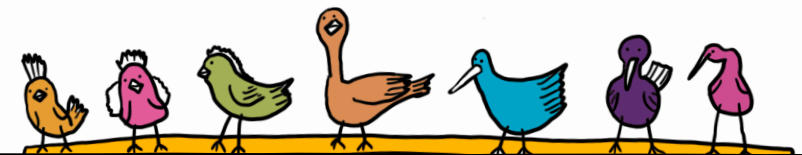
Create an invention using things found in nature to help nature!

Give these four activities a go to help guide you through the challenge!

- 1. Thinking caps on!** Let's think about what things are made by nature and what they are made of.
- 2. Let's get creative!** Have a go at making some natural art yourself by arranging what you have found.
- 3. Let's get inventive!** Transforming your nature treasures
- 4. No one is too small to make a difference.** How can you help nature?

INVENTION SHEET.

Create your very own nature inspired invention!

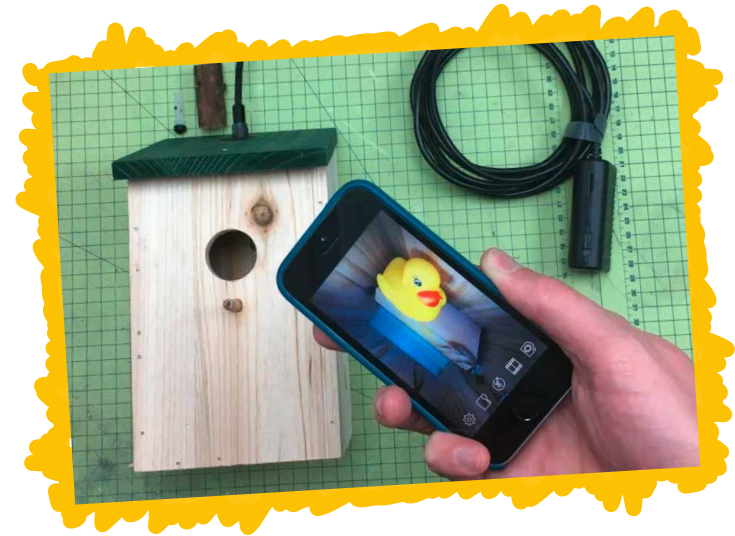




Jude Pullen is a designer from Cumbria, in the north of England. He now works in London, and has designed things as varied as medical devices, glues, vacuum cleaners and LEGO toys.

Jude has been on TV helping people manage their disabilities with the clever use of technology. Jude and his son often invent things as a family that are fun to make, but also make you think.

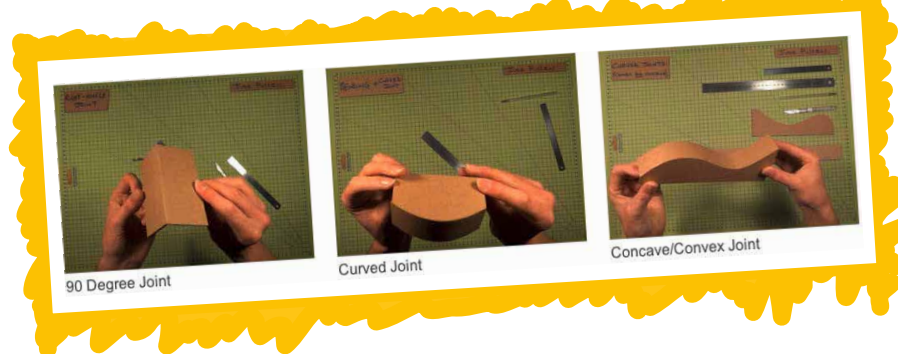
He has also created online tutorials and guides for older people, that explain how to make prototypes and models.



Wifi camera birdhouse



Jude discussing modifying prosthetics



Online tutorial

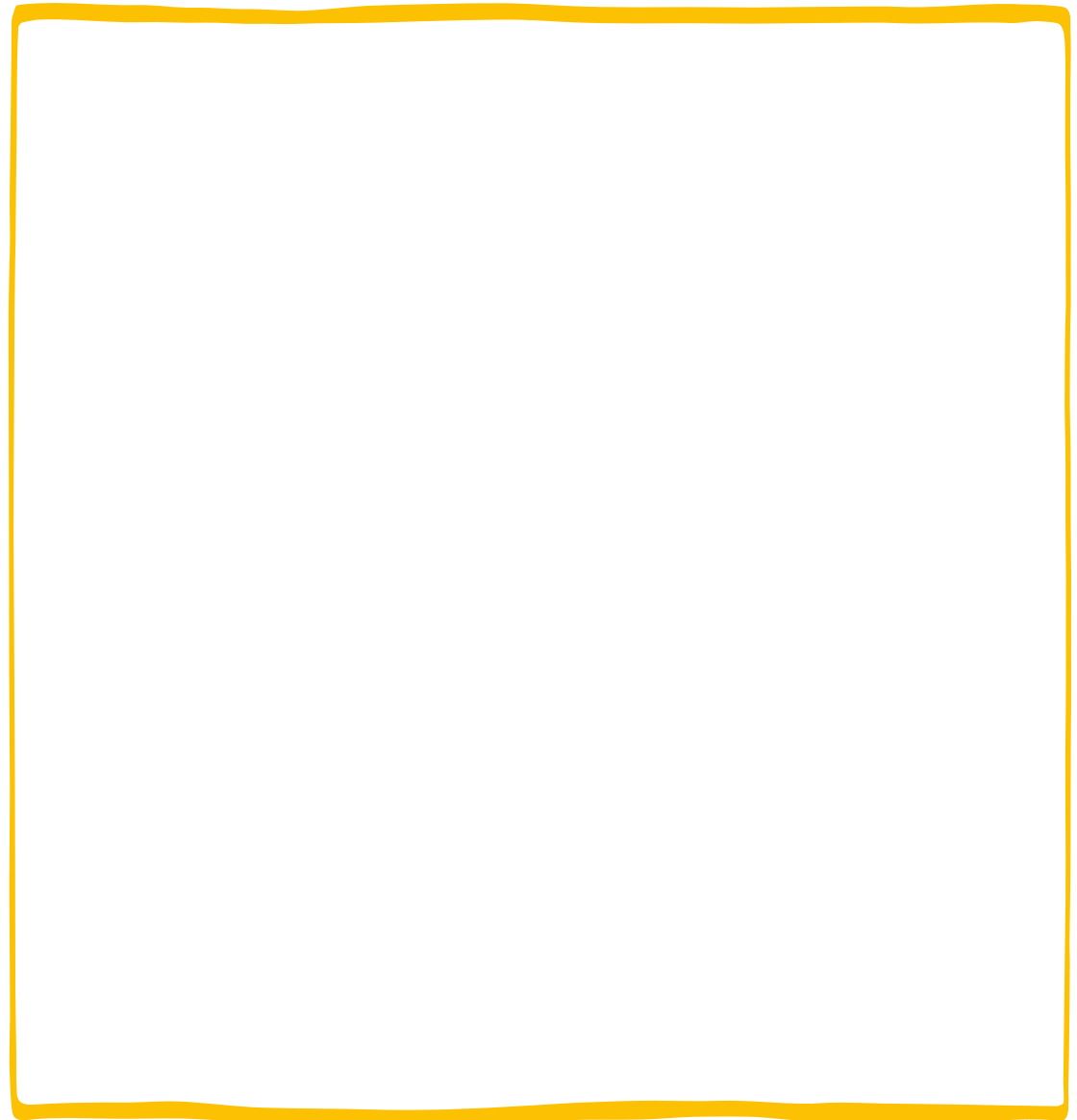
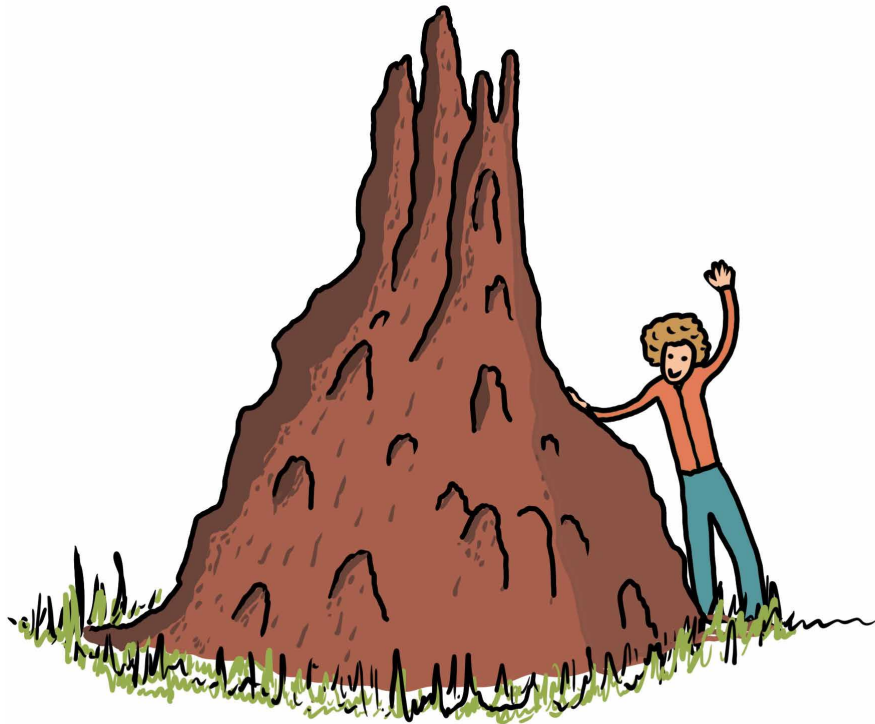


Bespoke Hairdressing tool

Made by nature

Think about what things are made by nature: it could be insects making hives, mammals making dams and dens, fungi making huge networks that are alive! List or draw them here...

Can you imagine or research why they build these and how? For example, termites nest keeps them cool in the desert and are made of soil, saliva and dung! They can be up to 5 metres tall and like giant cities!



List or draw things made by nature

Nature Sculpture

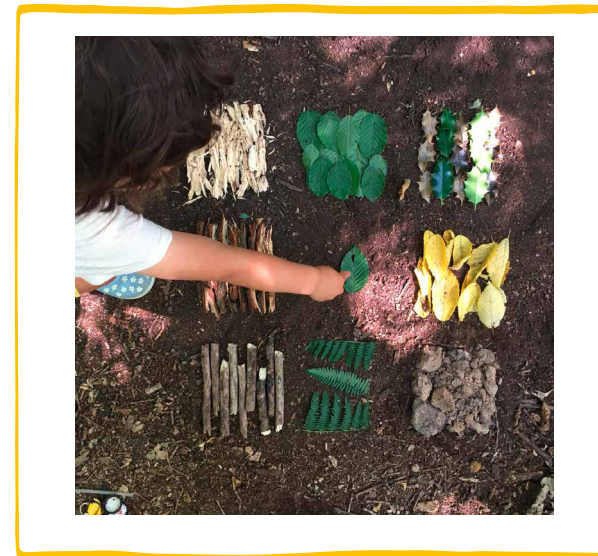
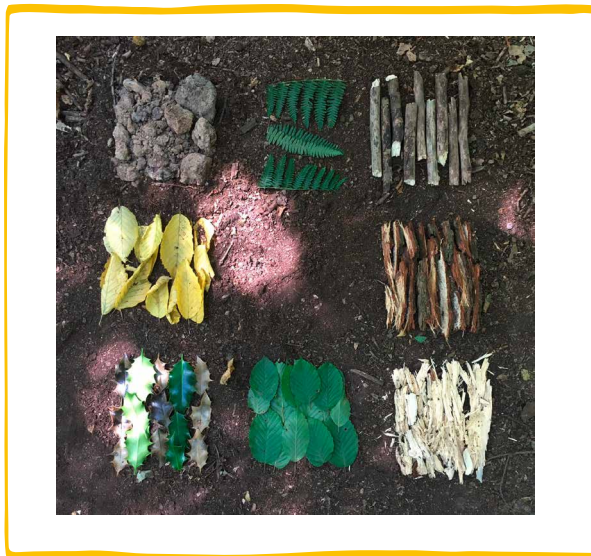
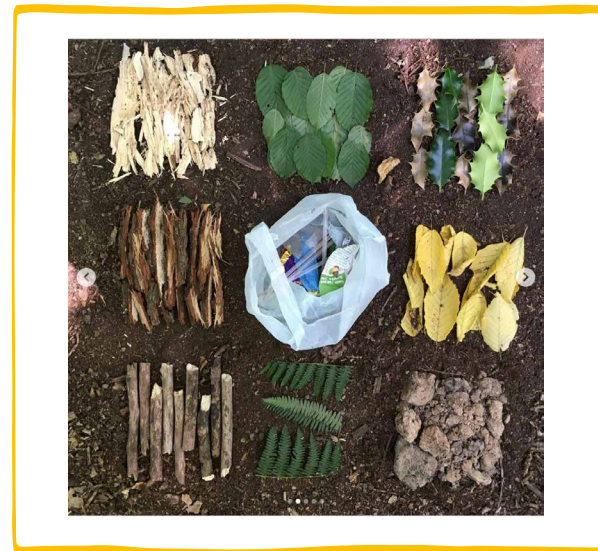


Now look at all the things that you've collected on your nature walk (for real or in your imagination!). Be like **Andy Goldsworthy** - the found-in-nature artist, who makes sculptures from things he finds in nature.

He doesn't always plan everything. Instead he enjoys touching, playing, bending, squishing and observing natural materials. This is what makes him have fun with things and the art comes later.

Here's an example of a load of different leaves and twigs I found. You could also use rubbish that you find.

Art often tries to make us think about things, maybe it makes you see the value of things you find differently?



Have a go at making some natural art yourself by arranging what you have found.

Transforming your nature treasures

Take another look at the materials that you have found.

What can they do?



Float?

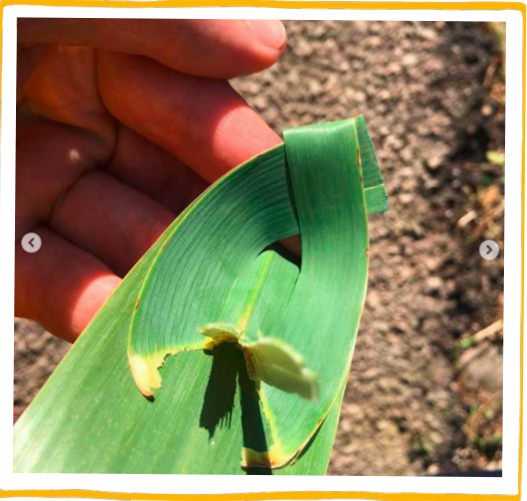
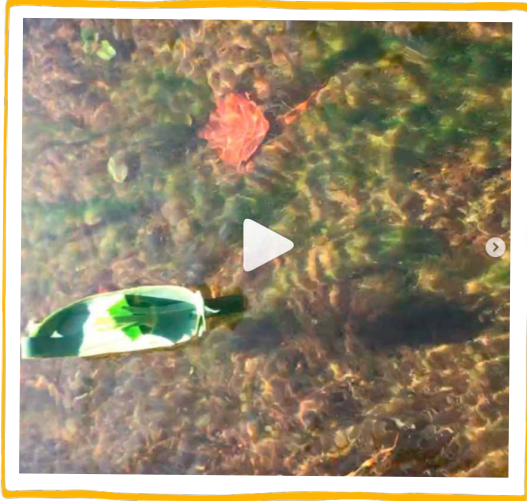
Make paint?

Hold something up?
(e.g. make a flag pole?)

A leaf can become a boat. Can you invent a boat, car or flying thing - using natural objects to help nature? Maybe a raft for to help a beetle to get across a pond.



How can you use some of the man-made items you have found?



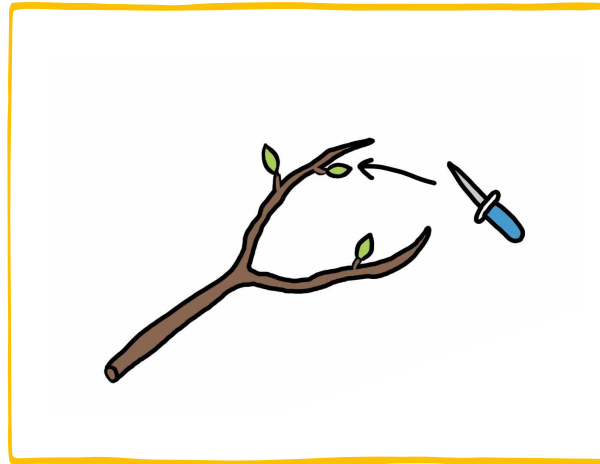
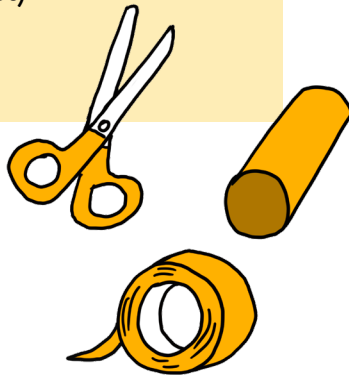
You can make nets from household recycling/rubbish - whether you're using a plastic bag or a fruit net, you can use an old coat hanger or a stick. **Follow the how to guide on the next page!**

Let's make a fishing net!

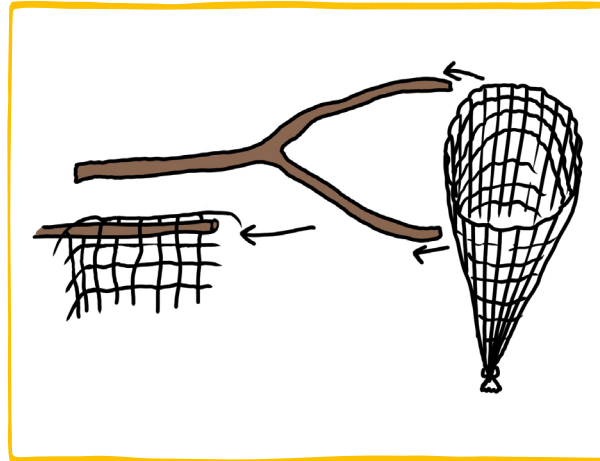
With a few simple materials you can make your very own fishing net. Follow these instructions and see what you can create!

You will need:

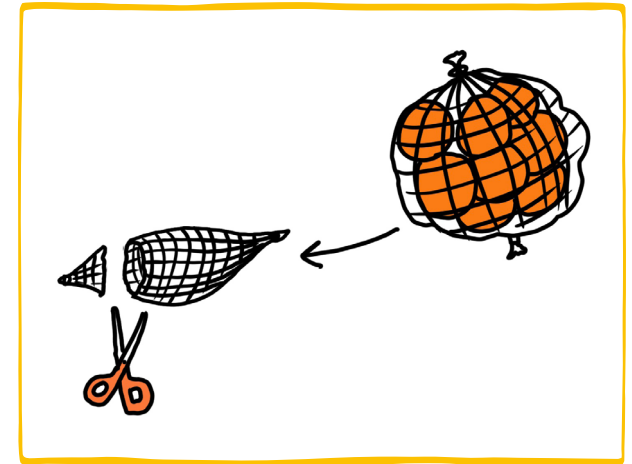
- A knife (and an adult to help you use it)
- A fruit net (like you oranges come in at the supermarket)
- Scissors



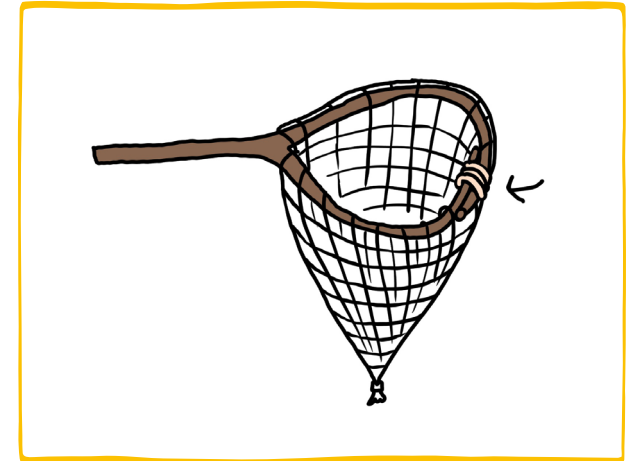
1. Use a bush, craft or scouts knife, if you have one. Saw off a regenerative/fast growing tree like willow, poplar, redwood, birch, holly or ideally find a bit of windfall or dead branch.



3. Thread the net onto your branch



2. Remove the end of the net



6. Bend into shape. Push into a circle, over the twigs if possible.

How can you help nature?

Now that you have your collection of nature and man-made things, can you think of what might need help?

For example, a net can be used for pond dipping to catch animals and wildlife (be gentle!), but also to help clean rubbish, excess algae and debris out of ponds to make them better for the things living in it.

You may want to help small things like insects or worms, or bigger things like trees and lakes.

It's up to you!



I want to help:

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The problem is:

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What I can use:

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What it will change:

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My Nature Invention

Create an invention using things found in nature to help nature.

.....
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First name

Age

School

Town/city

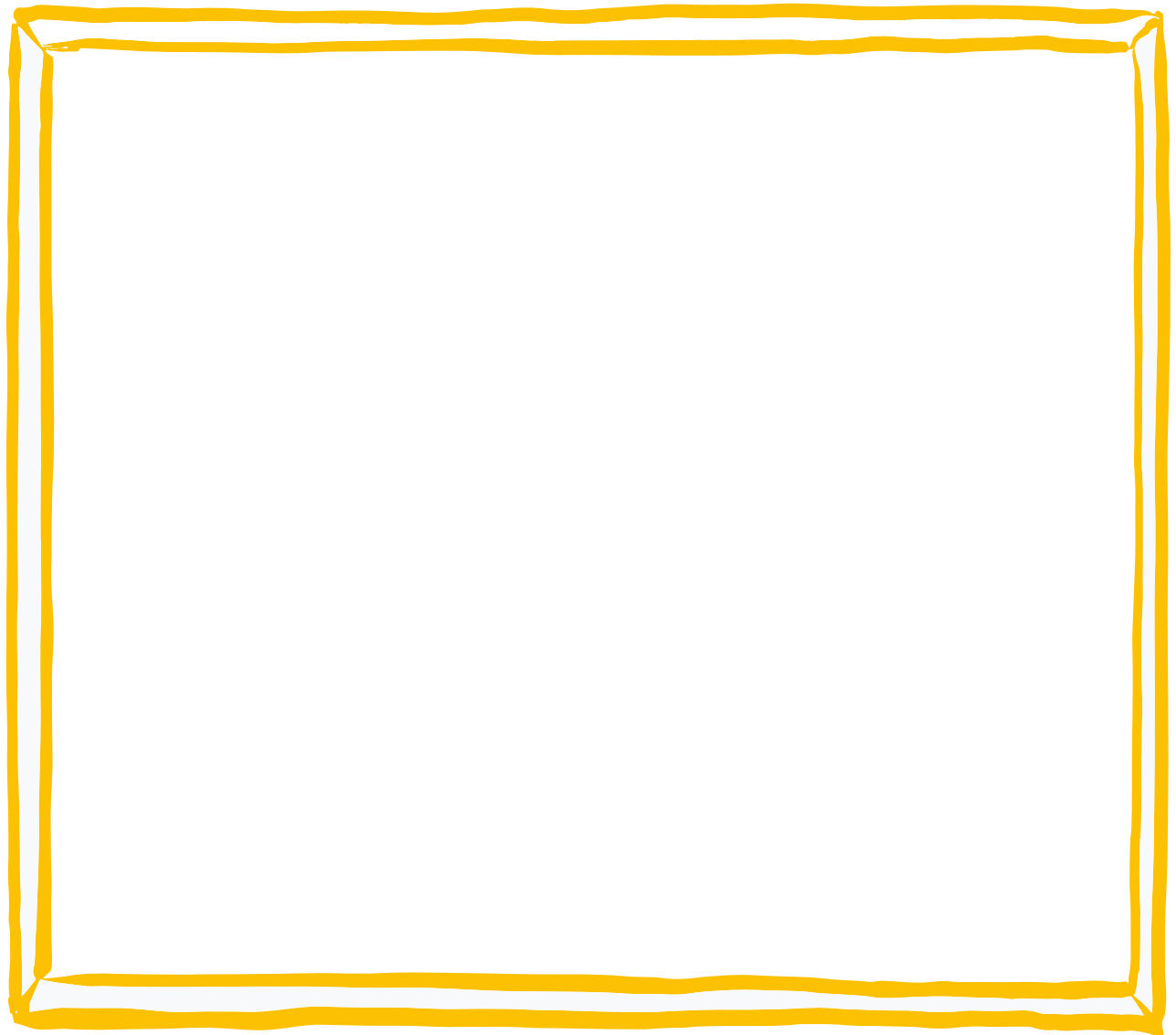
Tell us more!

(who your invention is for, what it does, how it works!)

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Draw your invention here! *Use a black pen, add colours and labels*

Name it!
↙



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