

# International School Challenge!



Little  
Inventors  
Ingenious Ideas

SUSTAINABLE DEVELOPMENT GOALS

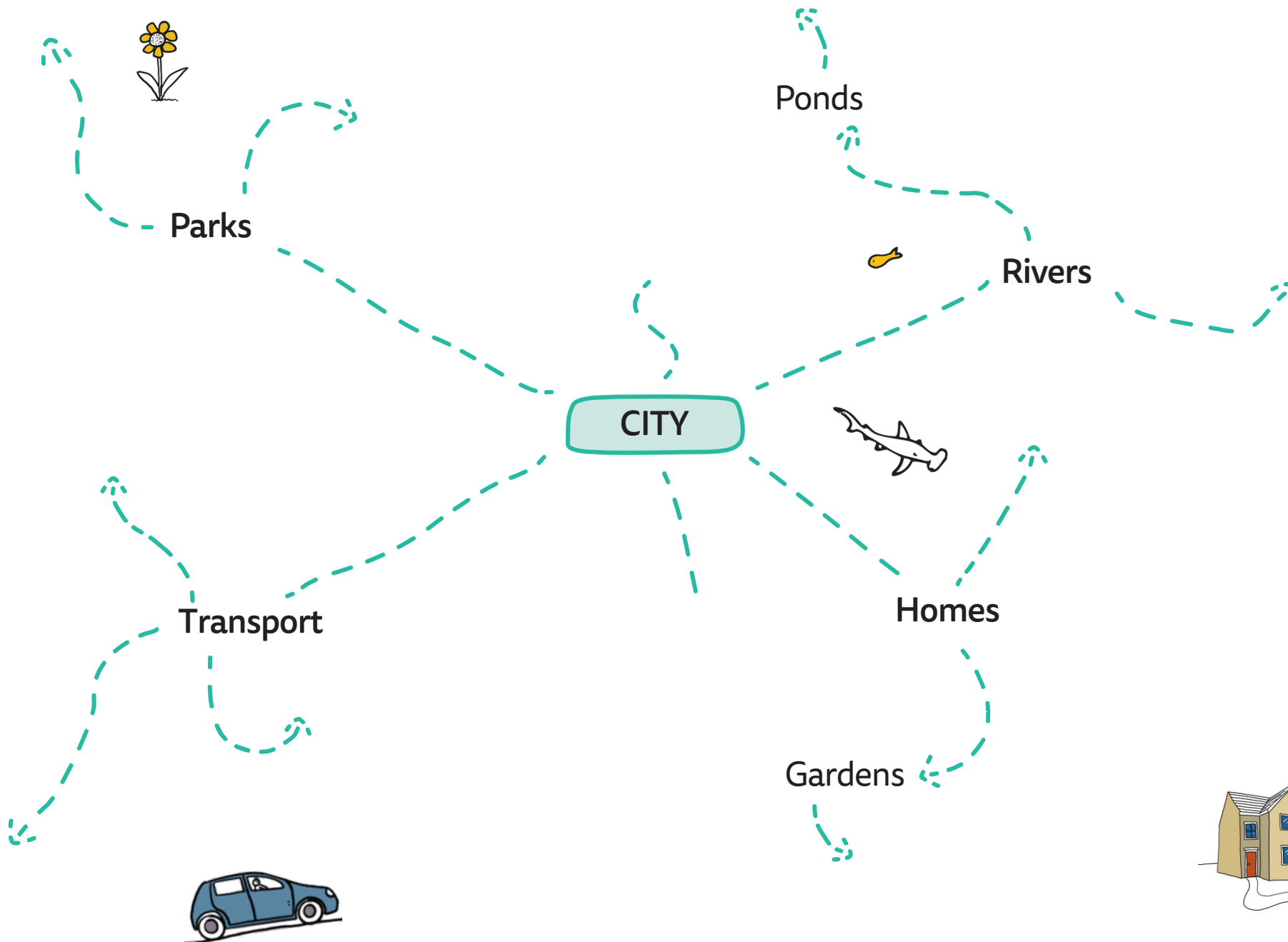
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11 SUSTAINABLE CITIES AND COMMUNITIES



ACTIVITIES

Use this mind map to think of inventive ways to make our cities and communities more sustainable. Add more features of cities and communities and draw more arrows and lines if you need to.



ACTIVITY: MIND MAPPING



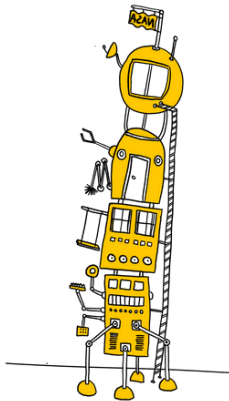


Use this profiler to capture information about the a person who lives in your community and how they could benefit from a more sustainable place to live

ACTIVITY: COMMUNITY PROFILER

Large empty rectangular box for drawing a person, with a yellow arrow pointing to it from the text below.

Draw your person here



What's special or different about your person?

Five horizontal lines for writing the answer to the first question.

What are the problems they face living in the community?

Five horizontal lines for writing the answer to the second question.

How you can help the person?

Five horizontal lines for writing the answer to the third question.

I am: \_\_\_\_\_

I live: \_\_\_\_\_

I travel to: \_\_\_\_\_

Two horizontal lines for additional information.



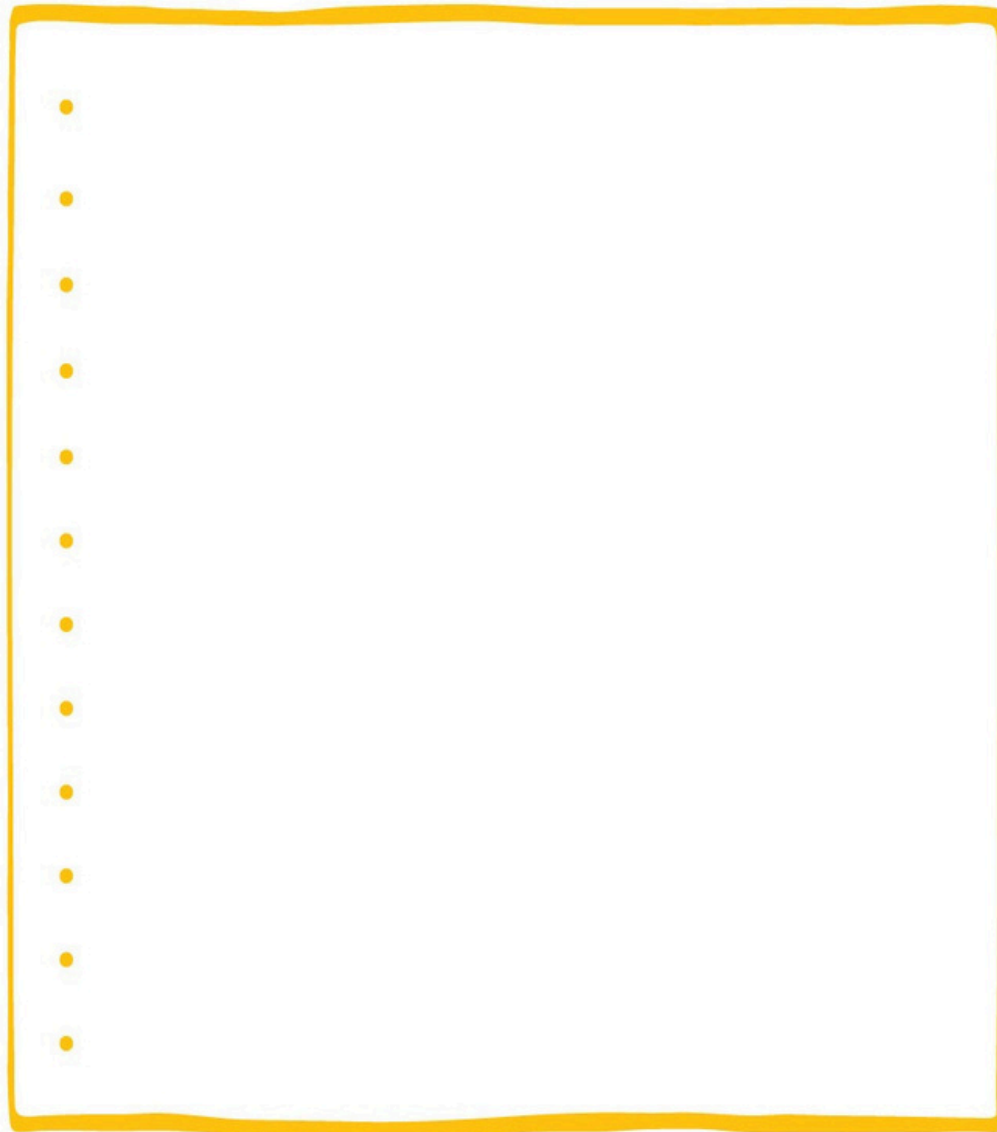
# Think of lots of different types of homes and habitats!

People and animals live in all sorts of homes all over the world. Some have lots of space, some are high up or underground to keep away from danger, some need to stay warm or cool.

Write down or draw as many different types of homes as you can think of. Think about what shapes and features (like doors, rooms, stairs, chimneys or windows) do they have? Why?

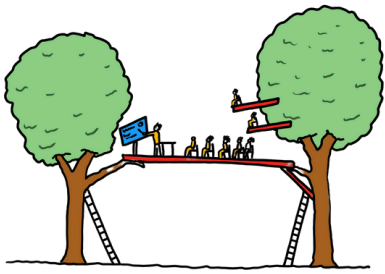
To get you started, you could think about:

- Whose home is it? (maybe a worm, a firefighter or a giraffe...)
- What kind of place is it? (maybe a city, somewhere in a jungle, up a mountain, on a cloud, under the sea...)



Write your list of homes here!





What if we could totally reinvent where we live? Imagine there are no roads and no buildings and we could create a new town or city from scratch.

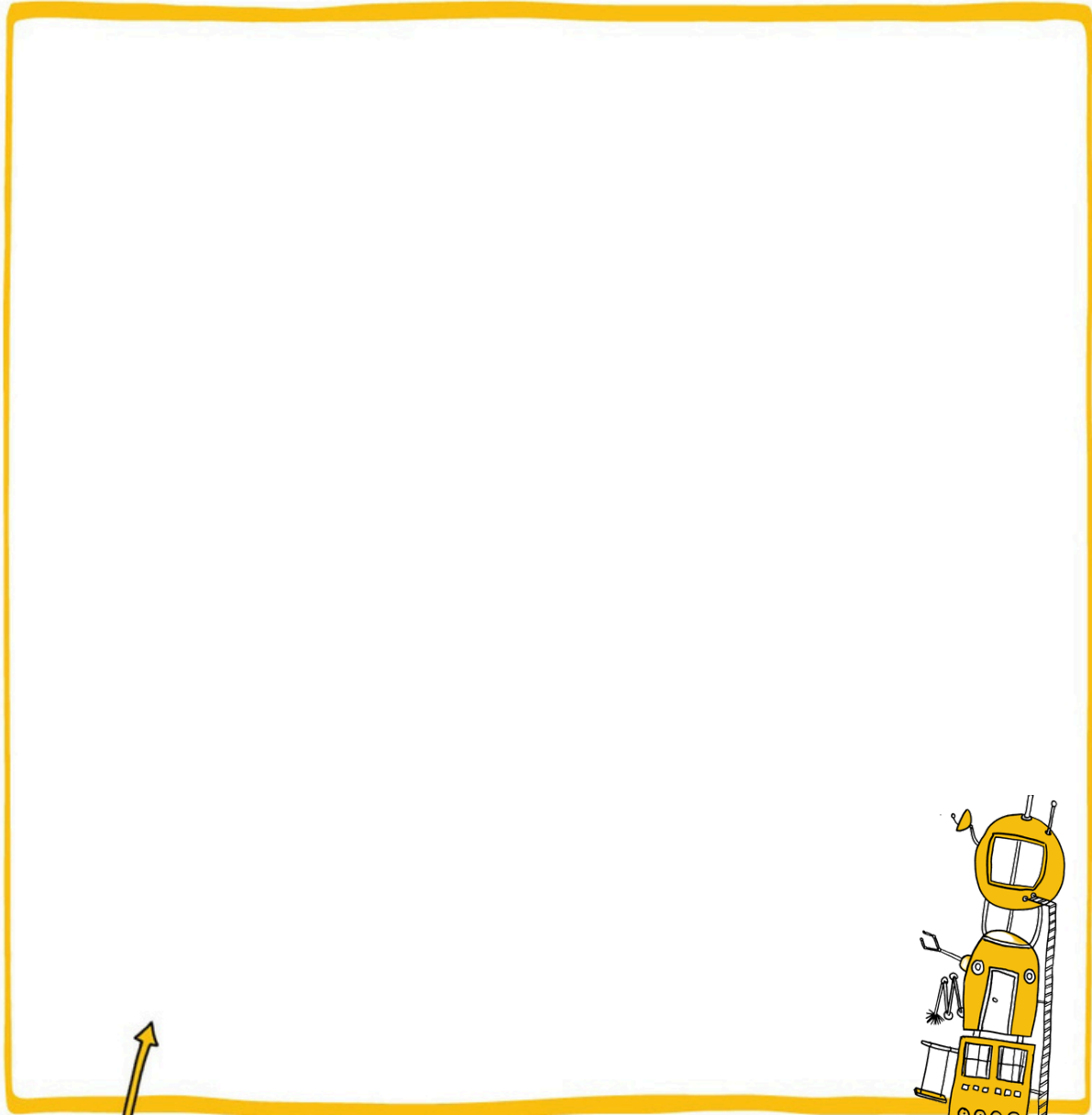
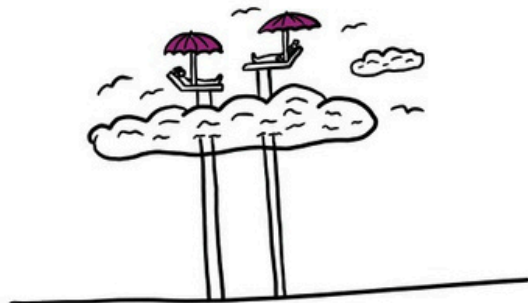
What would your place be called?



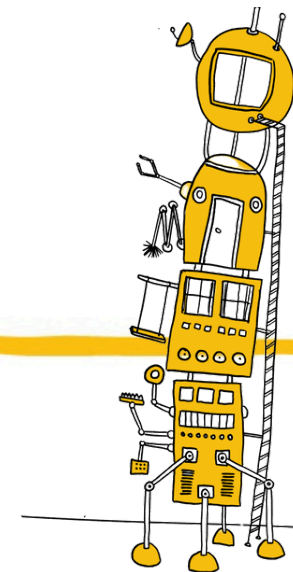
Who would live there? How would you travel around the area?

Can the buildings move, do you swim from place to place, do you ride on the back of an ant? Could people live in the clouds or underground?

**Draw your dream place and add labels to tell us more...**



Draw your dream place to live here!



Write a story about an invention that makes our cities and communities more sustainable. 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?

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

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Middle: What is the problem that needs solving?

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

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# ACTIVITY: WHAT'S THE STORY?

Cut up the cards and pick one to get started.

Invent a children's playground that generates green energy	Design a streetlight that saves energy by only turning on when needed	Design a house made from things you can find on the beach
Invent a method of transport using butterflies and caterpillars	Invent a 'pocket park' kit that turns small, unused spaces into tiny parks or green spaces where people can relax, socialise or exercise	Invent an item of clothing that harnesses green energy to power all your devices
Invent a new building material from recycled or natural materials that can make homes and buildings more sustainable.	Invent a way to use a volcano to heat a city	Invent a way to rescue animals from wildfires
Design a way that can transport people around a city without polluting the air	Invent a mobile phone powered by green energy	Invent a "rain garden" planter that can soak up rainwater to prevent flooding in cities

ACTIVITY: MINI CHALLENGE CARDS

Thinking up a short story can help to come up with new invention ideas. Stories have a beginning, a middle and an end.

1. At the beginning there's a problem. Who has the problem and what are they finding difficult or annoying to do?
2. In the middle, think about a way to solve the problem in a fun, practical, clever or totally bonkers way!
3. Then at the end show how the problem was solved and how your invention is used.



**1** The Problem! The invention solution! Using my invention!

I can't reach the book I want!

Books

The book shelves slide out to make steps

book shelf on button

That's better!

**2** The Problem! The invention solution! Using my invention!

The dog doesn't like the rain

umbrella dog collar

The dog is happy with his Dogbrella!





Solve these problems

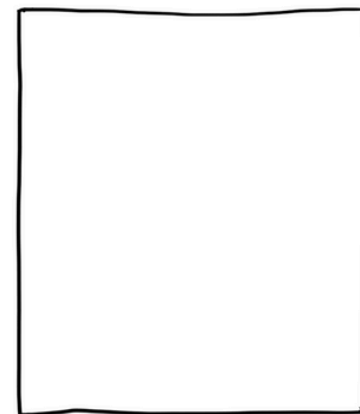
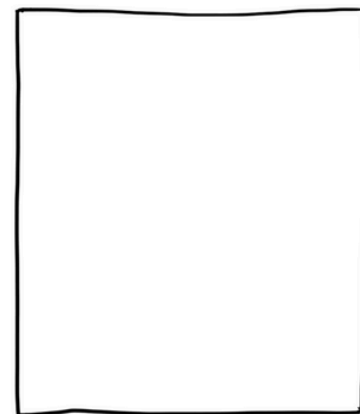
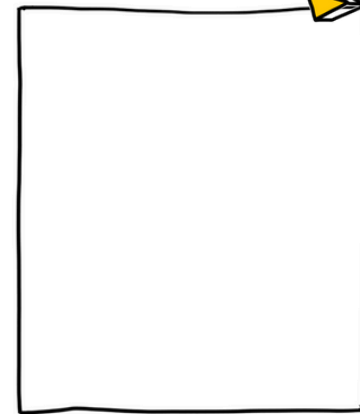
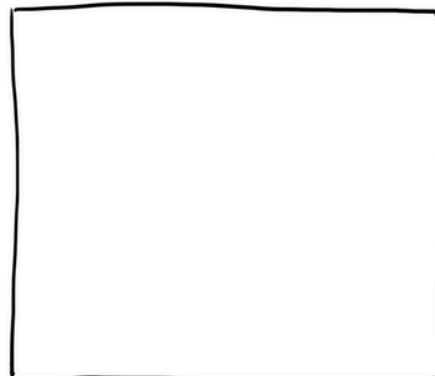
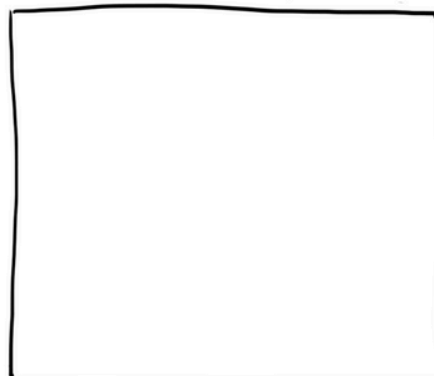
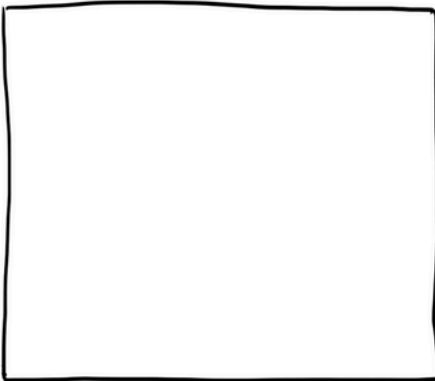
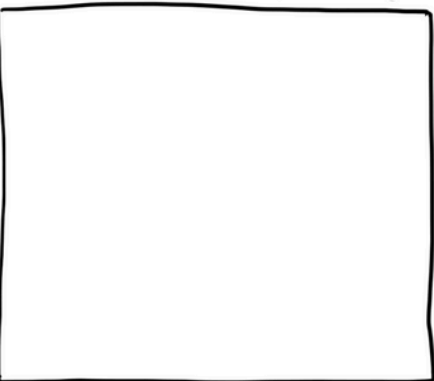
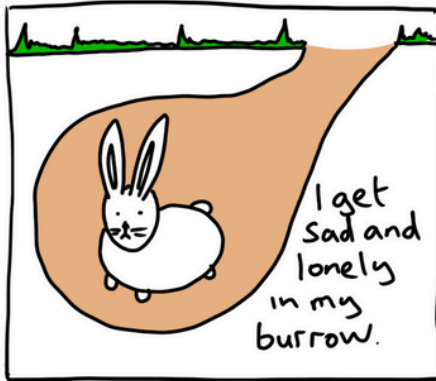
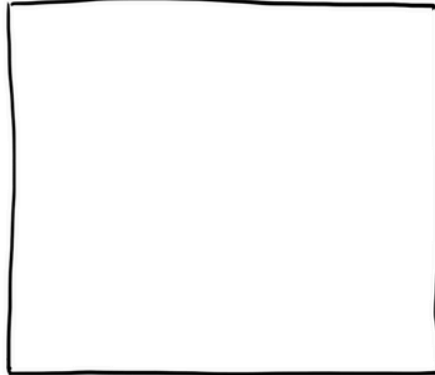
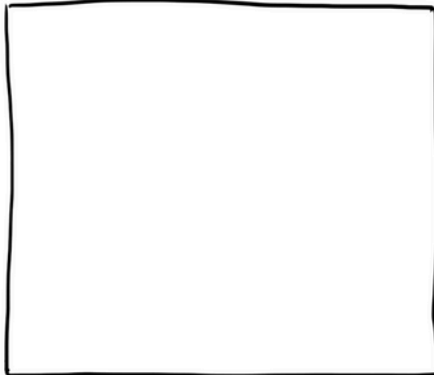


Now make up your own!



The Problem!

The invention solution! Using my invention!



ACTIVITY: PROBLEM DETECTION COMIC PT2



What can you invent to help make our cities and communities more sustainable?

**Invention name**

First name ..... Age .....

School .....

Town/city .....

Country .....

**Tell us more!**  
(Who it is for, what it does, how it works)

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