



playful
architect

sustainable World



Working Manual



www.hravyarchitekt.cz

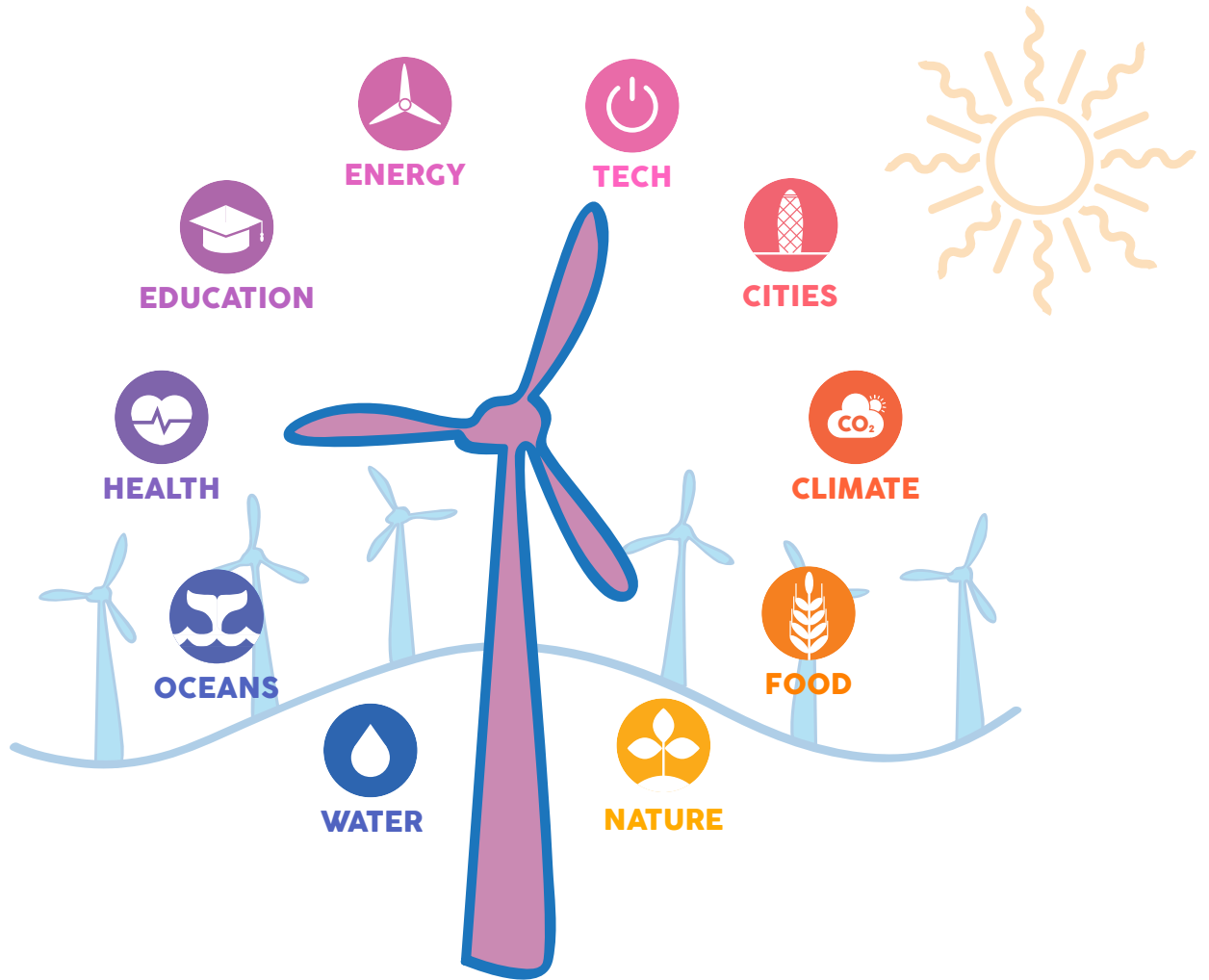


the planet earth needs us!

Today we are **7,500,000,000** people in this planet and that is a lot of people! That means that a lot of work is needed to provide food, houses, transportation, clean air, safe water and energy for everybody.

It also means that all the activities we do, from going to school to buying a hamburger, and even building an airport affect the health of the planet and the lives of people in many ways that we cannot imagine.

We, **the Playful Architects**, have the power to imagine how to fix the problems of our world, but before, we have to understand what the problems are!



The **United Nations** is an organization (like a club) where all the countries of the world meet from time to time to talk about the problems of the world and to think how to solve them.



The United Nations discovered that, with so many people living in the planet, we need to do common activities in a different, **sustainable** way.

They have thought of **17 goals** that can help the planet recover and allow all people to live better.

In Playful Architect, we have chosen **10 of these goals** to learn about the biggest problems in the world, and think how to fix them using **architecture, our drawing skills and our imagination!** Choose the goal you like the most and then draw how you imagine a sustainable world, with the craziest, best ideas you can think of.



Source: <https://www.un.org/sustainabledevelopment/>

Playful Architect: 10 ideas to create a Sustainable World



WATER

Ensure clean water and better sanitation for everybody



TECH

Use technological advances and innovation to live and work better



OCEANS

Protect and use oceans and coasts carefully



CITIES

Build safe, beautiful and sustainable cities and communities



HEALTH

Offer healthy, sporty and relaxed lifestyles for all ages



CLIMATE

Help to fight against climate change by using responsible products and transportation



EDUCATION

Make sure all boys and girls receive education of high quality



FOOD

Improve how we grow, distribute and consume food so there is no hunger anywhere in the world



ENERGY

Produce renewable, clean, and cheap energy and fuels



NATURE

Protect forests, ecosystems and natural resources

What's the problem?

- 30% of people don't have clean drinking water where they live
- 40% of people live in places where there is very little water to use
- Almost all the dirty water from agriculture, factories and cities go to the rivers and the sea without being cleaned up
- Flooding is the most dangerous natural disaster in the world

water



Some ideas!

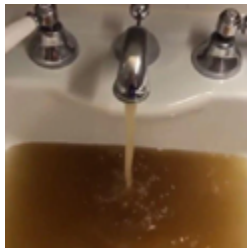
Water treatment in houses, factories and farms



Buildings and roads that let rainwater return to the ground



Roofs and fountains that collect rainwater



oceans

What's the problem?

- Half the people on the planet need the oceans as their main source of food
- In some places, we are fishing more than the ocean can renovate
- Oceans are full of plastic! Plastic waste that ends up in the sea takes thousands of years to disintegrate, killing sea animals and birds
- Oceans and coasts need to be used responsibly and carefully

Some ideas!

Special ships and floating buildings that collect plastic from the sea



Floating or underwater housing buildings



Schools and laboratories that study the oceans, their animals and plants



Parks by the sea that can control floods and waves



health



What's the problem?

- 5 million children die every year due to little or no medical care
- Only half the women receive good healthcare in poor countries
- Hospitals and clinics are concentrated in cities, leaving some towns and regions without healthcare
- Cities need better sanitation, rubbish disposal and pollution control

Some ideas!

- Building more hospitals and clinics in the countryside 
- Active health equipment and designs in cities and towns 
- Buildings that help people do sports, relax and rest quietly 





education



What's the problem?

- 57 million primary age children still don't go to any school
- Africa is the continent in most need for new and better schools
- Half the children that cannot go to school live in conflict areas
- 617 million young people are not able to read or do maths

Some ideas!

- Mobile schools that can go where they are most needed 
- Using the internet to teach remotely 
- Schools that can produce their own food and furniture 



What's the problem?

- 13% of people in the world have no electricity at all
- The production of energy is the principal cause of climate change
- Many poor people use dangerous combustibles to cook or heat their houses
- Only 17.5% of all energy produced today is renewable

energy

Some ideas!

Design and build solar and wind farms 

Buildings and houses that produce their own energy 

Power plants that turn rubbish into energy 



technology

What's the problem?

- Developing countries need better roads, communications, electricity and technology
- Small and medium manufacturing companies are the best job creators, but they need support
- 16% of people have no access to the internet
- Agro-industries have a big potential to help poor countries

Some ideas!

Innovative transportation and communication ideas 

Building technology parks near schools and universities 

Help schools to install modern learning systems 

Use technology to build smarter, cleaner buildings 



What's the problem?

- Half the people in the world live in cities - and more are moving
- Cities are growing the fastest in poor and developing countries
- Cities consume the most energy and produce the most waste
- Fast and uncontrolled urbanization causes pollution, over-uses fresh water and damages the environment, public health and heritage



cities



Some ideas!

- Create smart cities where everything is connected 
- Building green architecture and sustainable communities 
- Preserve, renovate and use architectural heritage 




climate

What's the problem?

- The world has become a lot warmer in the last 100 years; snow and ice are less and oceans are bigger
- We are producing 50% more carbon dioxide (CO₂) since 1990
- Climate change provokes glacier shrinking, extreme storms, flooding and severe draughts
- Sea levels will rise up to 63 cm by the year 2100, which means many coastal cities will disappear or move inland



Some ideas!

- Build special protections in the cities against flooding, hurricanes and other disasters 
- Make buildings carbon-neutral (meaning their construction and use don't affect climate) 
- Build with local materials that regulate temperatures and help buildings use less energy 

food



What's the problem?

- 💧 Hunger is a big problem in the world today: almost 10% of the world population is hungry
- 💧 66 million children go to school hungry everyday, most of them in southern Asia and Africa
- 💧 Small farms provide 80% of all the food in developing countries
- 💧 Agriculture provides work for almost half of humanity

Some ideas!

Sustainable crops, fish, beehive and herbs farms 

Food growing inside the cities, buildings and houses 

Markets selling only local food produce 



nature

What's the problem?

- 💧 1/4 of the world population depends on forests for their subsistence
- 💧 In the last 5 years we have lost more than 3 million hectares of forests around the world
- 💧 Illegal hunting and sales of wildlife impact nearly 7,000 species of animals and plants
- 💧 22% of world animals are in risk of extinction in the near future

Some ideas!

Build more and better botanical gardens, wildlife shelters and zoos to protect animals 

Create more national parks, protected areas and nature learning centers in the wild 

Use local and sustainable natural materials in construction 

Design green architecture that integrates and mixes with nature 



I chose my goal! now what?

Let's see what you can draw! Imagine what kind of building, house, city, or incredible idea will help us reach the goal you have chosen. Take an **A3 paper** and paint with anything you want: pencils, crayons, watercolors, oil colors, charcoal, fingerpaint, chalk... even collages and computer drawing!



My drawing is ready!

Good job! Eveybody's works are unique and amazing, but some of them are truly special! See the works of your classmates and everyone together choose the **6 best ones**. These 6 drawings will represent your school in Playful Architect.

Where are the winning drawings going?

The winning drawings from your school will be sent to Prague to join the drawings of many other schools from around the world n the **Sustainable World exhibition**, which will be in Prague Castle in the Czech Republic. The exhibition will then travel around the world to be seen by hundreds of children just like you!



Can I use my mobile phone while working?

Absolutely yes! We would like to see you and your friends working, so you can **take photos of each other while drawing**, and ask your teachers to choose the best ones to share with us and with other students. We will make a video with all the photos we receive to be played in the exhibition!

sustainable World

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A collage of architectural images and the Playful Architect logo. The logo is in the top left corner, featuring the word "playful" in multi-colored lowercase letters and "architect" in multi-colored lowercase letters. The collage includes: a circular white building with a green roof; a circular structure with a complex blue and white internal structure; a circular white building on a dark surface; a modern building with a curved roof and large windows; a building with a green facade; a modern building with a large overhang; a modern building with a large overhang; a modern building with a large overhang; a modern building with a large overhang; a modern building with a large overhang; a modern building with a large overhang.

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