DESIGN SKILLS FOR A CHANGING WORLD

vam.ac.uk/innovate
innovate@vam.ac.uk
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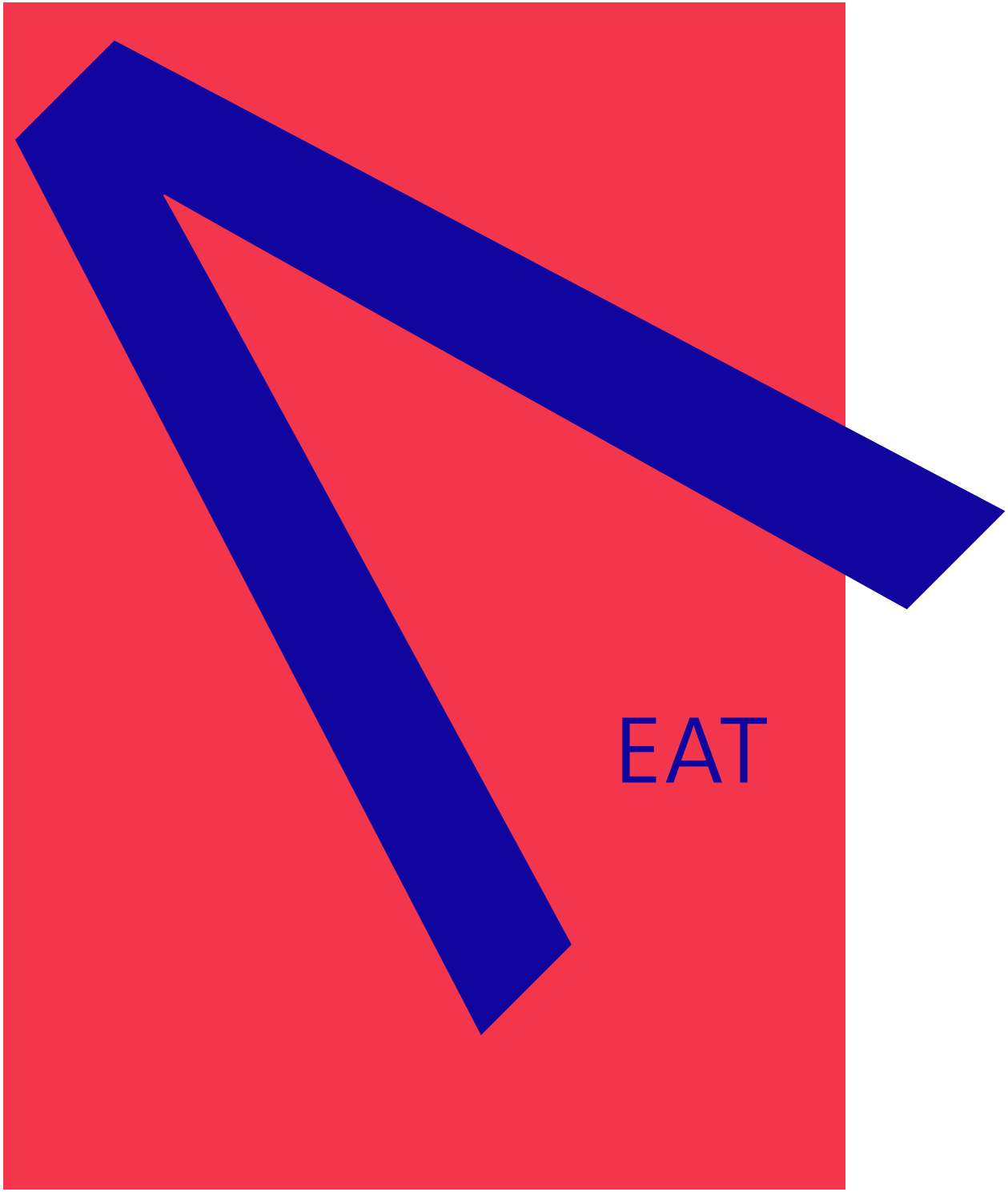


INTRODUCTION

What we eat, where and how.

Food connects us to each other, to our culture and to nature. We depend on food to survive, yet some of the biggest issues we face globally, from our health to climate change, come from how we eat.

This resource supports delivery of the EAT contextual challenge for V&A Innovate. It is suitable for Key Stage 3 and uses objects from the V&A collections to kick-start research and ideas generation.

STARTING POINTS

Investigate EAT with your students and encourage them to find an opportunity or problem they want to solve using design. Here are some areas you might want to explore:

FOOD WASTE

The basic act of eating creates 'waste' – not just the products of our digestive system, but also the by-products of growing and consuming food. In natural cycles, this organic waste is returned to the soil, providing nutrients for new life. But in today's disposable culture, we've become used to thinking of waste as something undesirable to send away, mostly to landfill or the ocean. Every year, around one third of the food produced for people gets wasted. Waste does not have to be the end of the line – it can be the beginning of the food story.

PACKAGING WASTE

The UK produces more than 170 million tonnes of waste every year, and much of it is food packaging. Packaging has revolutionised the way we can store and keep food fresh. But the unintended environmental consequences of packaging – particularly plastics – have become more visible, both locally and globally.

FROM FIELD TO PLATE

Many of us don't know where our food comes from. Most of us now have no interaction with the animals we consume, and it is easy to ignore the fact that we depend on other species to survive. The food we eat can travel thousands of miles to reach us, but food grown closer to home can travel thousands of miles away.

FOOD POVERTY

One third of the food produced globally is wasted, while people are going hungry. Millions of young people across the UK and billions of children across the world are facing a daily struggle to eat well.

THINK LOCAL

Encourage students to think about these global contexts at a local scale. How does EAT relate to their own lives and the lives of those in their community?

What does your local supermarket, school or local restaurant do with their leftover food and packaging?

Where does the food you eat every day come from?

ONLINE RESOURCES

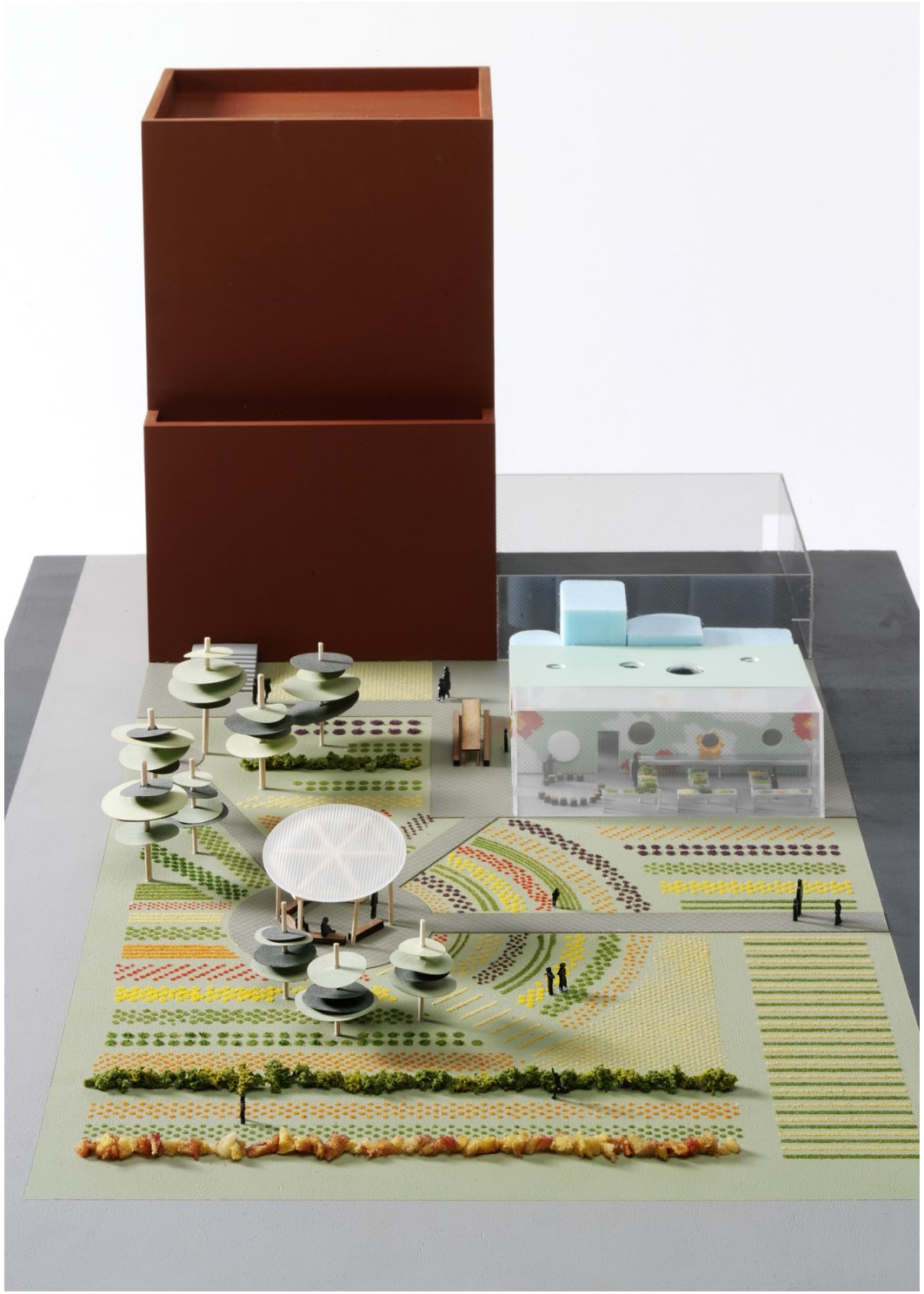
Watch materials designer Ella Bulley explore potential future uses for sugarcane.

Search over one million objects from the V&A Collections online, including ceramics, fashion, furniture, glass, metalwork, and more. collections.vam.ac.uk/

MUSEUM VISIT

EXHIBITION
Food: Bigger than the Plate, 18 May 2019 – 20 October 2019
Inviting visitors to participate, taste and debate, this bold exhibition explores current experiments at every stage of the food system.

Enjoy our vibrant exhibitions programme and take advantage of the concessionary ticket rate for educational groups - £3 per student and teacher. Booking essential (a minimum of two weeks' notice is required). Find out more here.



Edible Schoolyard: Public School 216, Brooklyn, New York, USA, WORKac Architects, 2014 © Victoria and Albert Museum, London

> WHAT IF SCHOOL PLAYGROUNDS WERE EDIBLE?

EDIBLE SCHOOLYARD

DESIGNED BY WORKAC ARCHITECTS, 2014

The Edible Schoolyard Project in New York uses gardening and food preparation to teach students the connections between food, health, and the environment. WORKac Architects turned a carpark into an organic garden with a kitchen classroom, a rainwater collection wall, and a greenhouse to allow food to be grown throughout the year, despite the cold weather in New York. The Edible Schoolyard Project believes in a future where all children are empowered to make healthy food choices for themselves, their communities and their environments.

> ACTIVITY <

Is there a space in your school or local area that could be improved? Could the space encourage people to learn more about food, or to grow and share food as a community?

Speak to your fellow students, school staff or local residents to get their opinion.

Brainstorm design ideas to meet the needs of the people you have spoken to. Show these ideas through sketches, simple prototypes and models. Think about how you would like the new design to benefit your fellow students or local community.

WOBO Bottle, John Habraken, 1963 © Victoria and Albert Museum, London. Given by Heineken Collection Foundation.

> WHAT IF PACKAGING WAS DESIGNED TO HAVE A SECOND LIFE?

WOBO BOTTLE

DESIGNED BY JOHN HABRAKAN, 1963

On a visit to the Antilles islands in the Caribbean, Alfred Heineken noticed that the beaches were littered with bottles and that there was a lack of affordable building materials, which meant poor living conditions for many people. To solve both problems, Heineken asked the architect John Habrakan to design a bottle that would also serve as a building material. Habrakan designed a bottle with flat sides, two of which have rows of bumps which act as a grip for the mortar when bottles are stacked on top of one another. The short neck was designed so that it could slot into a concave hole at the base of another bottle. These bottles are seen as pioneering examples of industrialised recycling and simple reuse of materials.

> ACTIVITY <

Make a list of the packaging you throw away or recycle every week. In teams, spend two minutes thinking of as many uses as possible for the packaging you would normally throw away.

Swap your ideas with another group and see how many unusual and unique potential uses there are for things you normally throw away.

Rapid-prototype your favourite ideas using packaging and any other materials you have available.

MittiCool Clay Refrigerator, designed by Mansukhbhai Prajapati, 2005, made by Mitticool Pvt. Ltd., 2016

>WHAT IF FRIDGES DIDN'T NEED ELECTRICITY?

MITTICOOL CLAY REFRIGERATOR

DESIGNED BY MANSUKHBHAI PRAJAPATI, 2005

This fridge addresses one of the most urgent problems today: the fact that 1.3 billion people still live without access to electricity. Its designer, entrepreneur Mansukhbhai Prajapati, was concerned with the problem of food spoilage in rural Indian communities, where people could neither afford an electric refrigerator, nor acquire access to a usable power source.

The MittiCool Fridge uses an age-old technique called 'evaporative cooling', which requires no electricity to run. The top of the fridge is filled with water, and then contents are cooled via the evaporation of the water through the unglazed, porous clay. The Mitticool Fridge shows how sometimes the best solution to a complex problem can be found in low-tech traditions from the past.

>ACTIVITY<

How do you store food at home or at school? How much food goes off and is thrown away every day, week, or month?

Are there any low-tech changes you could make to products, systems or services to improve how we store food and reduce waste?

Research the 'Internet of Things' and smart kitchen appliances. How could we use new technologies or materials to improve how we store our food?

Liftware, Anupam Pathak, 2013 © Victoria and Albert Museum, London

> WHAT IF WE COULD CODE CUTLERY TO MAKE IT WORK FOR EVERYONE?

LIFTWARE

DESIGNED BY ANUPAM PATHAK, 2013

Liftware is a stabilising handle intended for people suffering from essential tremors (ET) and Parkinson's disease. Essential tremors and Parkinson's affect 10 million people worldwide and for those affected, using a utensil without spilling its contents is almost impossible.

Liftware enables those affected to eat more easily. It contains a motion sensor and a small on-board computer that helps distinguish hand tremors from general hand movements. The device then directs two motors inside the base unit to move an attached utensil in the opposite direction of the tremor. This helps the user more easily bring the utensil to their mouth without spillage. The object is an example of an innovative design product that directly benefits the lives and well-being of its users.

> ACTIVITY <

Think about how you prepare, cook and eat. List the equipment and tools you use. List what parts of your body you use. Act it out. Storyboard it.

Could any action be made simpler or easier for you or another user? How could introducing technology like sensors or microcontrollers benefit different users at each stage of preparing, cooking and eating food?