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If you don't understand some of the words in this book mean check the back for a section on what some words mean. If that's no help, search online.

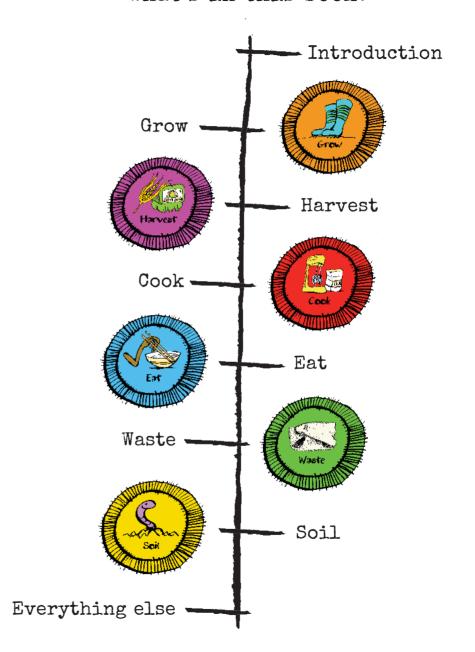
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Mission:Explore

Once you've enjoyed a byte or two of this eBook, try nibbling and scribbling in the paper version.

You can also find loads more free missions to complete and badges to earn on our website.

What's in this book?







Dear Explorer,

This book will change the way you see food forever. Do not go any further if you are afraid of going on adventures or tasting new things.

Inside Mission: Explore Food you will find 159 food-related missions. Your challenge is to complete and record each of them as best you can. On the Mission: Explore website you can collect points and earn badges for doing your missions too. Turn over the page to discover how.

By the time you have completed your unique copy of this book you will be an extreme explorer, guerrilla geographer and 100% edible.

Before you accept any missions in this book complete our Explorer Basic Training (from page 250) and make sure you have permission to carry out your plans.

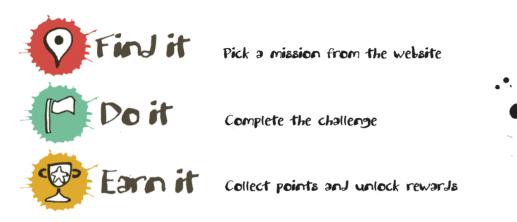
It's time to explore.

The Geography Collective



Be a member

Join thousands of Mission: Explorers on our website to discover lots more missions, win points and collect badges. Just follow these simple steps.



Join in now at www.MissionExplore.net.

Be allowed

The Internet is awesome and massive. Computers, wires, cables and connections can link you to knowledge, people and places across our planet. Like dynamite, it can be used for both good and bad. It's because some people use the World Wide Web for ugly things that we all have to be careful of when we're using it.

Get permission from a person who looks after you before using MissionExplore.net. If they have any questions ask them to take a look at this page that we've written especially for old people.

www.MissionExplore.net/old-people

You are a time traveller, space explorer, edible adventurer and food forager. Like all earthlings you not only need food to fuel your explorations, but for your very existence.

Like magical potions, everything that reaches your stomach can give you super powers. Swallow the right stuff and you can be stronger, think sharper, heal quicker and fight off deadly diseases. Put the wrong things in your body and you can end up chucking-up, weeing out of your bum or worse.

Good guerrilla geographers don't just eat food, they think about where it's come from and where it's going too. That's why in this book you will discover just as much about growing and pooing food as how to cook and eat it.

When out picking, making, sharing and disposing of your meals, remember to consider how friendly your food is. How does eating your food affect people, other animals, plants and places? What are all the costs of your harvests? And remember those old sayings that you "reap what you sow" and you "are what you eat".



How to use this book

This book is not finished. It's full of missions but not many answers. By exploring, searching, testing, experimenting, feeling, drawing, smearing, writing, photographing, sticking and sharing your findings you'll complete this book and become a food expert.

Be random

You're welcome to read this book from front to back or you can dip in and out instead. Keep track of your completed missions from page 244.

Be repetitive

Some people think that it's boring to repeat things. Repeating is practicing and by repeating missions you'll be improving your skills. Repeating is also a great way to remember things. Repeating yourself can be a little dull though, so we'd advise against saying the same thing over and again.

Be rewarded

Do enough missions from each chapter in this book and you can earn digital badges on the MissionExplore.net website.













Not all the missions in this book are online, so be sure to check on MissionExplore.net to see which ones you can win points for.

We'd prefer it if you didn't die as a result of doing missions in this book. At the start of each chapter you'll find some great survival tips, and from page 250 you'll find lots more advice about staying alive. Here are a few important ones for starters:

Just because you can put something in your mouth does not mean that it's human food. Berries, mushrooms, and venomous snakes are just a few of the things that can leave you dead as a dodo. Only pick, cook and eat stuff that you know is safe.

Wash your hands before preparing, sharing and eating food. If you don't you could get seriously sick or get something disgusting like worms. If you get an itchy bum this could be wiggly worms coming out to say hello before laying some eggs. Don't get worms... wash your hands.

In the right hands knives, boiling water, ovens and graters can help you to cook some awesome dishes. In the wrong hands they can cut, scald, burn and grate you. Always get permission before preparing or cooking food and ask if you need help.

Always read and follow instructions on food packaging and don't lick the inside of your freezer.















Grow

We all need good food. In the past all humans survived by exploring for animals to hunt and plants to nibble. If you go wild exploring you may have to do this too.

Many modern explorers grow their food before setting off or buy it from a shop. Growing food to be eaten elsewhere has allowed people to live and explore where food is hard to find, including oceans, polar regions, hot deserts and even cities.

In some extreme cases, like space travel, explorers grow food as they travel. With current technology the only way humans could mount an expedition to Mars and back would be if plants were grown onboard the spaceship.

If your explorations are closer to home it makes even more sense to grow your own food. You can then look after your crops and harvest what you need when you need it.

Growing edible animals

Like you, other animals need to eat and drink. If you were only given food, water, a box and nothing else, you would grow. You wouldn't enjoy growing and you wouldn't grow well, but you would grow.

Having light, shelter, safety, company and care are all important for chickens, dogs, pigs, fish, horses and other animals kept by people. Sadly, many of the animals that reach human plates are not treated as they should be. Check out page 24 for missions to work out how happy your meat is.

By eating animals, humans can live in some extreme places.

In the dry Saharan desert camels are one of the few large animals who have adapted to eat the rough plants and live with little water. Across the cold grasslands of the Russian tundra reindeer survive in places that people can't farm. In these extreme places people depend on animals to turn plants into protein, blood, milk, meat and furs. Without them they would have to live elsewhere.

When exploring extreme places you may depend on animals for food, drink and transportation.

Fantasy farming

By being eaten by humans, animals can live in some extreme places.

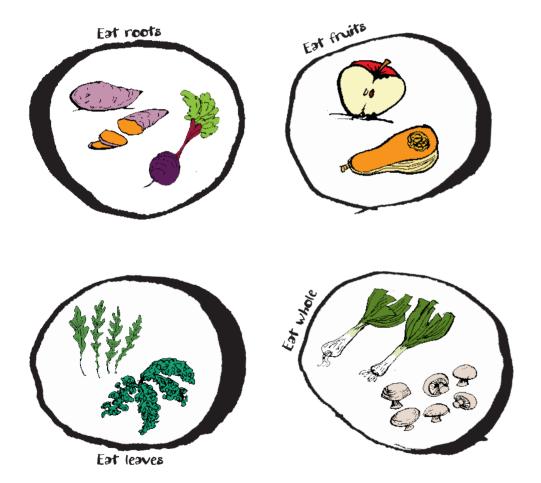
More people are eating more meat than ever before. Many animals are able to forage for food, eating plant leaves (including grasses) and stems that they find themselves. Others depend on people to feed them corn, soy, hay or pellets. These are used by many farmers to change the taste and cost of meat. Farm fodder is often transported large distances so that cows, pigs, horses, goats, sheep and chickens can be reared where they would never naturally survive.





Edible plants

Edible plants offer different things to eat. Some have tasty leaves, some have tasty roots, some have tasty fruits, some have tasty seeds and others can be gobbled up whole.



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Growing edible plants

Growing an edible plant is easy if you're in the right place at the right time.

All plants need light, water and food (called nutrients) to grow. Add more or less of these things and any plant will grow slower, faster, bigger, weaker, greener or tastier. Temperature, types of soil, wind, diseases, munching animals and scientists can all change the size, shape and colour too.

Knowing when and where to plant your plant is important. In some countries you can grow plants all year round, while others have seasons in which you must plant and harvest your crop.

When you buy seeds or plants they'll usually come with some instructions that tell you how to grow them. If it doesn't, ask some of the green-fingered people in your neighbourhood - there will be lots of people who would love to share their knowledge with you. You can also see page 258 for links and more information.

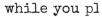


17

TI MEFOOL

Grow a pea pod

Construct a pea or bean hideout so you can snack on the walls



18



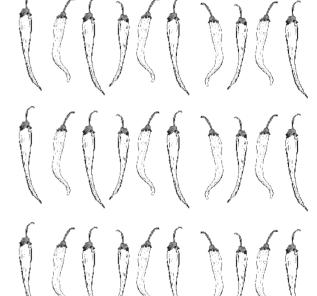
www.missionexplore.net

MEFOO2

Produce a chilly chilli

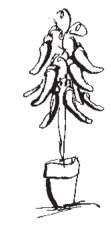
Why do chillies have to be hot? Try and grow a 'cold' chilli that won't blow your head off. Colour in these chillies to show how hot your attempts are.





Attempt 3

Attempt 2



ARNING! After handling chillies, don't touch anything (and we mean anything!) without washing your hands first!

TI MEF003

Find your plant's funny bone

Some people say talking to plants helps them to grow. Tell a plant some jokes to try and keep it happy. Does it work?

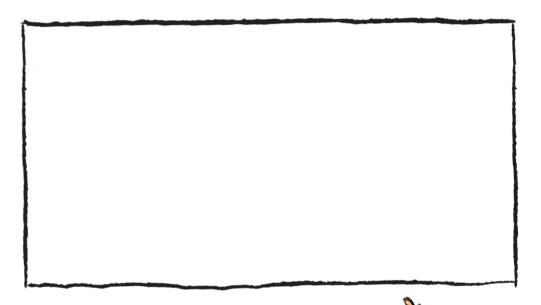
Label this Venus Flytrap with your best jokes.



MEF004

Grow a Kobe-style carrot

Plan a package to pamper a growing carrot.





MEF005

Design a scarecrow

Wildlife spotted:

MEF006

Design a friendlycrow

Wildlife spotted:





00



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MEF007

Meet your meat

Find out where your meat comes from and arrange a meeting with the farmer. Interview the farmer and the animals to discover how they are grown.

Farmer's interview notes:

Animal's interview notes:





Always get permission from the landowner before visiting a farm.



TI MEFOO8

Eat a bunch of flowers

Grow some edible flowers and make a tasty bouquet. You could freeze them in ice cubes to make your drinks look more beautiful too.

Keep notes of which flowers taste, look and smell best by pressing some samples here.



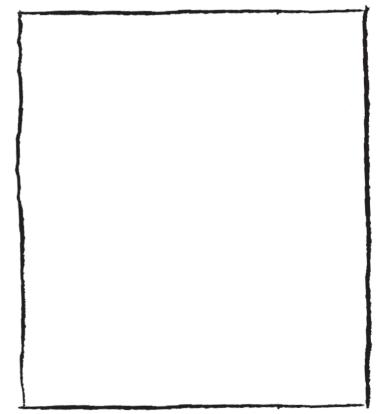


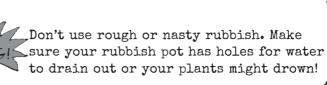
Only eat flowers if you know they are edible. Some plants will poison you! However, many are tasty and you can munch your way through nasturtiums, marigolds, violets, primroses, borage, cowslips, courgettes and daisies.

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Make rubbish plant pots

Rescue some rubbish and give it a second life as a home for your plants. Stick pictures of your rubbish planter here.

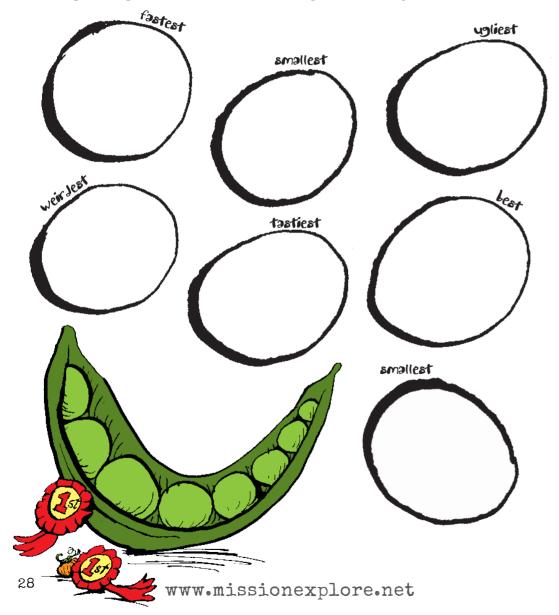






MEF010 Hold a growing olympics

Hold a growing contest. Draw or stick pictures of your winners here.



MEFOll Grow something you can't eat

10" bomeonithing you can beau

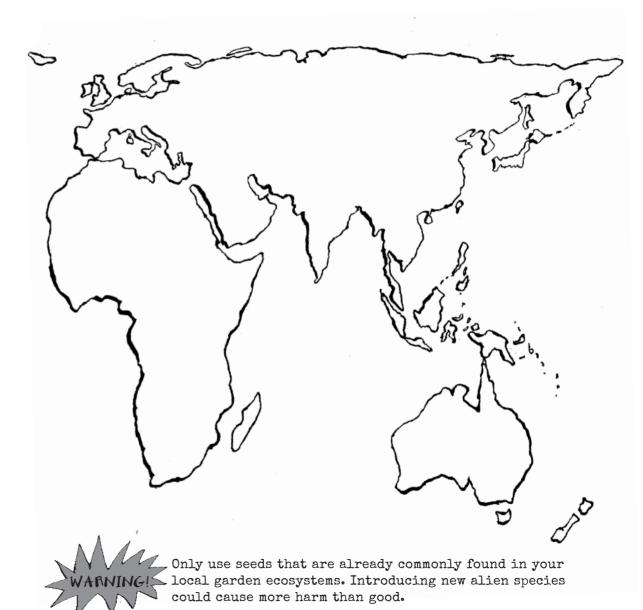
Grow something for something else.



TI MEFO12

Seed a soil map

Create an international seed map by following these (not so) simple steps! 1. Harvest a collection of as many different seeds coming from as many different places as you can. 2. Use some pebbles to copy an outline of this world map on some soil. The bigger your map is the better. 3. Plant your seeds into your soil map in the places where they're from. Wait, watch and map your results here.



TI MEFO13

Form a private army

Stop pesky pests without using chemical sprays by forming a natural army. Recruit and deploy natural predators and barriers to stop your food being destroyed.

XXX TOP SECRET XXX EXPLORER DEFENSE PLAN XXX

PHASE ONE: INVESTIGATE ANIMALS TO RECRUIT

PHASE TWO: INVESTIGATE PLANTS TO DIG IN

PHASE THREE: MAP STRATEGIC GROUND LAYOUT



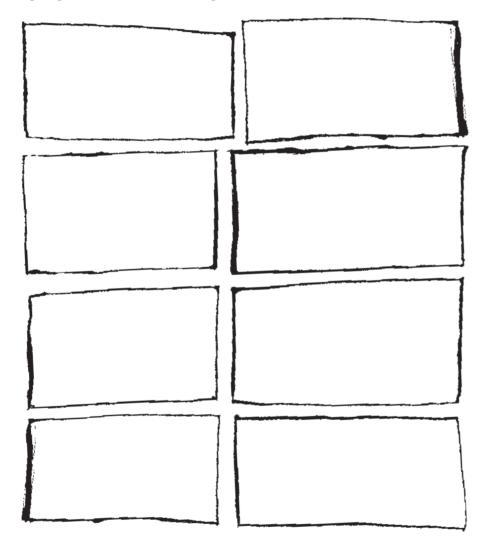


Ladybirds will defend your plants against invading aphids. Rosemary, thyme, clove and mint can all be used as barriers to ward off herbivores. Find out more using the links on page 258.

11 MEFO14 Plant life



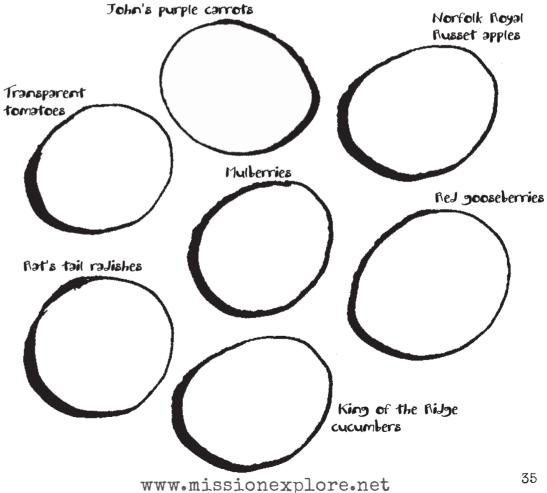
Keep a picture record of a plant's life from seed to death.



See page 241 to plan your plant's funeral.

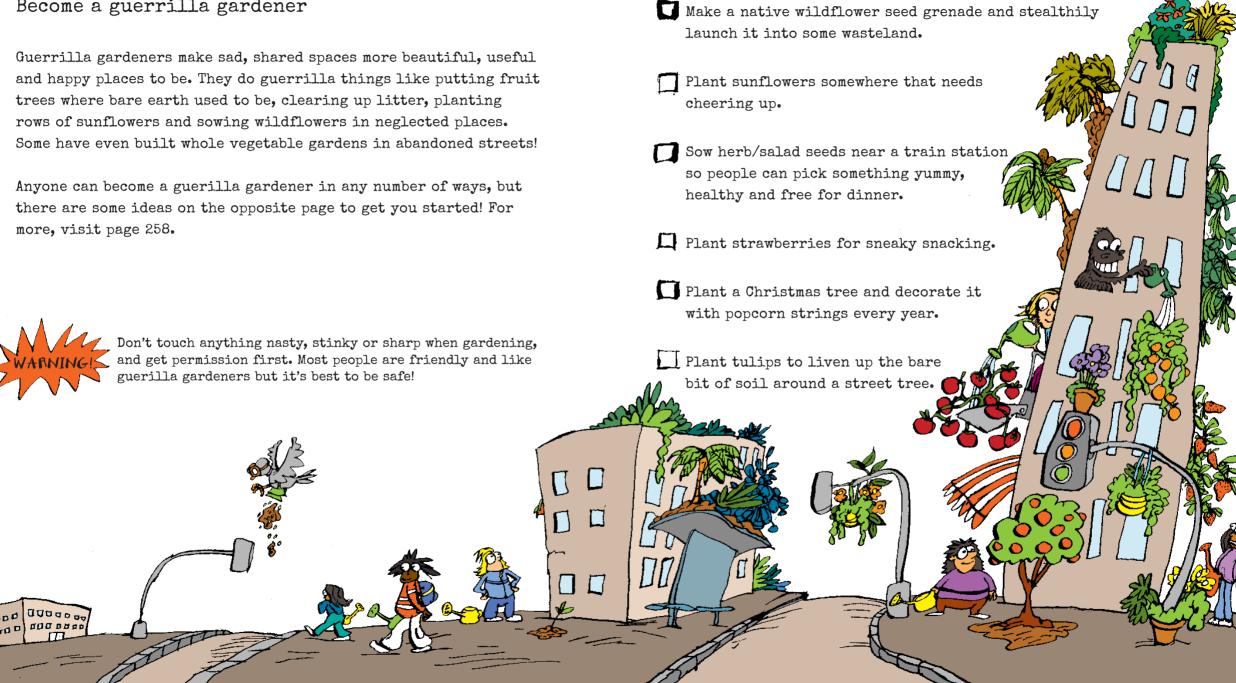
Help grow unusual species

You can help increase the numbers of unusual plants and animals by growing, buying and eating them. How many of the below can you find, eat and check off? Are they more or less tasty than your normal grub? Make leaf rubbings of specimens you've tasted from the selection of rare veg below.



TI MEFO16

Become a guerrilla gardener



Missions to complete:

11 MEFO17

Make a petal palette

Fill this page with as many different petal colours as you can.





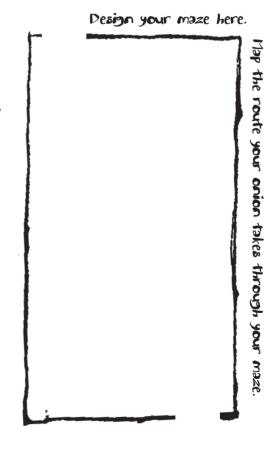
Be sensitive if you're plucking petals from live plants. Just take one petal from any one plant.

TI MEFO18

A-maze-ing onions

Challenge an onion to find its way out of a maze.

- 1. Create a cardboard maze inside a shoebox.
- 3. Make an exit hole at one end and place an old onion at the other.
- 4. Seal the box and leave it in a place where sunlight can get into the exit hole.
- 5. Observe.



TI MEFO19

Grow some bread

Grow, make, bake and eat a loaf of bread. Good bread has four ingredients: flour, water, yeast and salt. Make a loaf of bread from scratch by growing wheat, which is what flour is made of.

There are many different techniques for growing wheat and even more different types of wheat but here's some advice to get you started. See page 258 for useful links.

Prepare your ground: choose a spot that gets good sunlight and has deep, firm soil.

Rake the soil so it breaks up any big clumps of dirt, then scatter a handful (50g) of seed evenly over each square metre.

Give your plot a good watering.

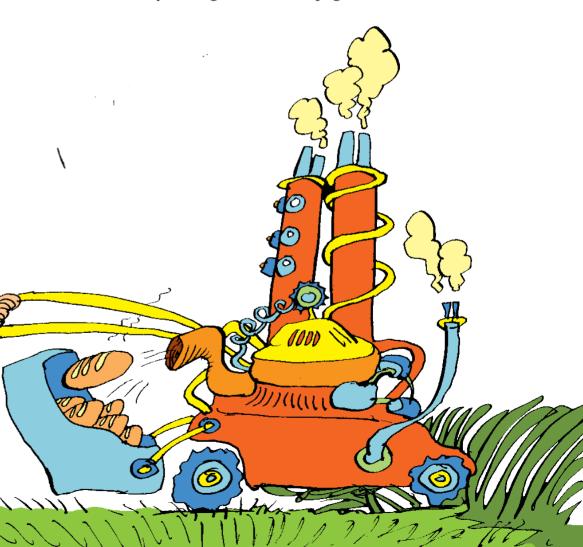
Make sure your soil is weeded and dug over properly before you sow your seeds.

Gently rake over the soil to cover the seeds so birds

don't gobble them up!

When the wheat is young, be extra careful to keep the plot well weeded and give the wheat some water if it hasn't rained. Once the wheat is established, stop watering it as it could make your crop poorly.

If you plant your wheat in March or April, it will be ready to harvest in late July or August. Turn to page 91 to learn how!



TI MEFO20

Send a cress message

Spell out a message in cress seeds. Let it grow and then give it to someone you love. Plan your message here.





Cress is a herb that's cheap and easy to grow. Sow your seeds indoors at any time of year (in soil or on damp loo paper) and it can grow over 2cm in a week. Once you've made your message, trim it down and munch it in a sandwich.

Grow a free meal

Is it possible to grow a free meal? Keep a record of the time, money and other resources you have to invest to grow your food.

Plant name	Expenses	Income	Time	Profit

Does it pay to cut corners?



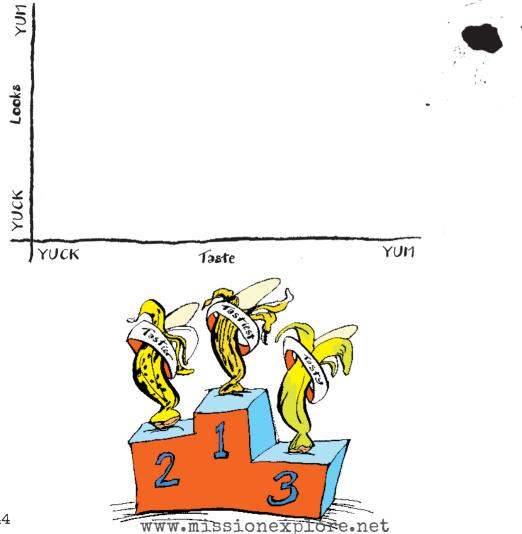


You can get free seeds by swapping them or saving them from fruit or vegetables you've eaten - chilli seeds, tomato or pepper usually work well.

TI MEF022

Inner beauty contest

Find the ugliest fruit or vegetable you can. Plot its looks and taste on the graph below, then compare to a 'perfect' supermarket one - which rates better?



TI MEF023

Bee friendly



Take these steps to help your local bees.

Make food

Plant nectar-rich wildflowers for bees. When they eat the sweet treat they'll pick up and move the pollen plants need to reproduce.

Make habitats

Create a 'bee hotel' by drilling holes into a piece of wood. Leave parts of the garden untidy with long grass, piles of sticks and good places for bees to hide.

Protect bees

Try and stop scared people from killing bees. Ask them to let them go or move away from them.

Complete this bee resort.



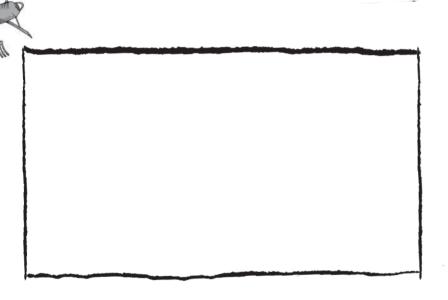
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TI MEF024

Microgarden

Plant some lettuce and herbs in a tiny place and grow a tiny salad. What's the tiniest space you can grow a tiny plant in?

Take a picture of your micro vegetable to make you look like a giant. Stick the picture below.





Some people grow 'microgreens' like this for their taste. Plant seeds about 0.5cm apart, with at least 5cm soil for roots to grow. Harvest your microgreens when they are about 2.5cm tall. This method works well with lettuce, herbs or greens.

TI MEFO25

Get sowing



Plan an elaborate meal for summer and plant seeds for all your ingredients now. Write your menu here.

~ Starter ~

~ Main Course ~

~ Dessert ~



















Harvest

A large amount of your life is spent collecting, gathering or harvesting stuff. From animals to plants, rain to wind and snot to thoughts, we all explore noses, fridges, forests or shops looking for things we can use. That makes you a harvester, even if you don't go and collect food from a field yourself.

Foragers are explorers who hunt and gather their food by exploring outdoors. By searching for and discovering fruit and other food you can be a forager too.

Be caring

Remember to be respectful when hunting or gathering food. Here are some important tips for caring when harvesting:

- Avoid hurting or damaging wildlife. Don't cause unnecessary pain or suffering.
- Plants and animals can be highly dangerous, especially if you are dangerous to them.
- Only go fishing, hunting and foraging for food if you are with someone who knows what they are doing. Never eat foraged food unless you are told that it's safe to do so by an expert.
- When harvesting from shops only buy food if you are happy with how it has been produced. Look on labels to check how it has been treated.

Hunting

Hunting is important for many people's survival, culture and a way of managing some habitats. Many people survive their whole lives having never hunted their own food, but killing and eating meat is still important to their way of life.

Hunters find, follow and trick animals by using skills including hiding, baiting, calling and stalking. They then use tickling, netting, trapping, spearing, snaring, shooting and other methods to capture and kill them.

If an animal is hunted and killed instantly this is called a 'clean kill'. When captured, if an animal isn't killed straight away, a gun, stick or knife can be used to 'complete' the kill. In abattoirs an electric shock or gas is often used to stun an animal before a knife is used to end his or her life.

Gathering

For about about 200,000 years we humans have hunted living animals, scavenged for already dead animals and gathered eggs, nuts, fruits and vegetables to survive. It was not until about 10,000 years ago that lots of humans started staying still to farm land. That means your great grandparents x 400 (roughly) were almost certainly hunter-gatherers.

If you know what you are looking for you can easily forage for a free meal in many parts of the world. Ask a local expert to take you digging, pulling, cutting, picking, twistting, bending, washing and munching.

Farming

When an animal is harvested from a farm it is usually caught, stored, transported, stored, slaughtered, stored, transported, butchered, labelled, preserved, packed, stored, transported, stored, traded, transported, stored, sold by a market and eventually bought by you or someone like you.





Getting a plant picked and prepared for your plate involves a lot of steps too. Some plants just need to be pulled, checked, packed and traded, but others take more effort. Unlike cows with their special stomachs, humans can't digest grasses very well. We can eat grass, but people either dislike the taste, are worried about dog wee on it or our bodies just can't get the nutrients we need from them. That's why we need special tricks to eat grass.

Grasses that people farm and harvest for their grain (a type of small fruit) are called cereals. These include maize (which is also called corn), sugarcane, rice and wheat. You can simply skin, boil and eat corn. With sugarcane you easily cut and suck sugar directly from it. Getting flour from wheat to make bread is more tricky though. You'll need to cut the heads off the wheat, remove the grain from the heads and then crush the grain to get your flour to make your bread. Check out page 91 to have a go yourself; it's easier than you might think.

Stop the rot

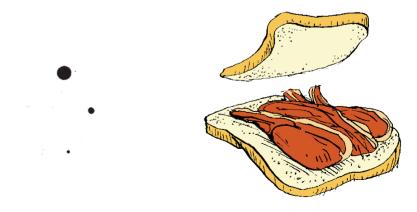
Once you've harvested your crop, if you're not going to eat it straight away, you need to stop it from rotting. Rotting is caused by bacteria, the same things that can make you smell, and by killing them off you can make food last longer and stop nasty diseases. Some crafty ways to stop the rot are on page 66.

Shopping

Most people who live in cities will never see the farms that their food comes from or know how it's been produced. For these people (including yourself?), shopping is the closest they will get to harvesting food.

When picking fruit and meat the only price on packaging is in \mathcal{L} , \$, \$ or \mathfrak{E} , but there are many hidden and secret costs that are forgotten when picking an ingredient.

Turn to page 70 for a mission to help you question what's on your plate.

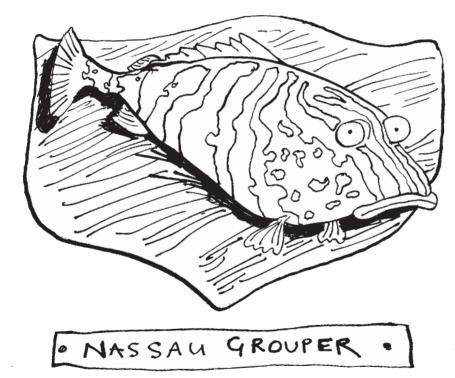


11 MEF026

Don't bite endangered fish

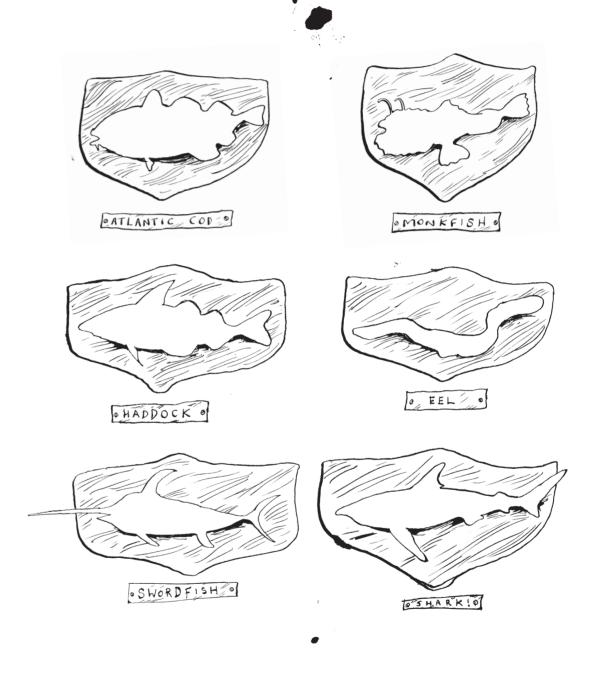
Some species of fish are being harvested and eaten so quickly that their numbers are going down. Many are endangered and even face possible extinction because we're overharvesting them.

Complete this identification chart to help you avoid munching on these increasingly rare sea creatures.





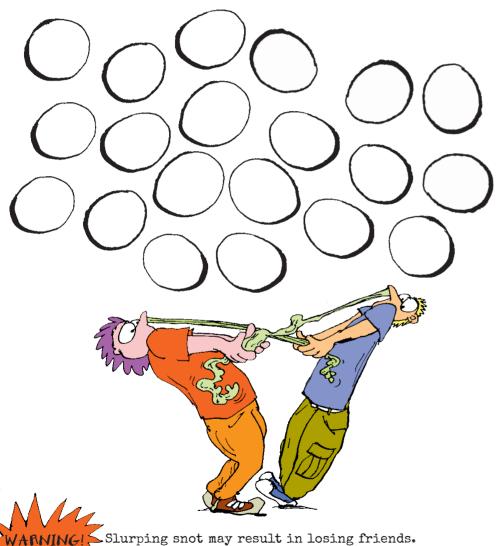
There are lots more fish that you could add to your chart. See page 258 for websites that will help you to work out which fish are safe to for you eat.



TI MEF027

Harvest some green things

Harvest and eat twenty green things. Smear samples on this page.



11 MEF028

Go freegan for a day

Try being a freegan for a day by only eating things that you can find for free. Stick imaginary till receipts for all the things you find here.

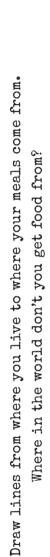




You're not a raccoon; don't eat stuff from bins!

11 MEF029

Spot where you don't get food



58



TI MEF030

Go bananas

Research all the types of transport used to get bananas across the world to reach your mouth.



Departure location

Arrival location

Type of transport





11 MEFO31

Forage for food

Exploring for food is called foraging. Become a forager and make your lunch entirely from food that you have picked. Sketch, find and eat each of these common wild foods.

	Sketch	Found	Eaten	Yuk	Yum
Nettle		口	П		
Elderflower		口	D		口
Rose hip				D	D
Wild garlic		口	п		0
Apple		口	D		П
Blackberry				D	D
Dandelion			D	口	

There are many ways to eat the wild foods you harvest, but here are some recipe ideas to start you off.

Nettle pesto - use any green pesto recipe but use young nettle tips instead of basil. Perfect with pasta.

Elderflower pancakes - use the recipe on page 107 but add the petals of elderflowers to the batter and serve with sugar and lemon. Yummy!

Fried flowers - dip young wild garlic or dandelion flowers in beaten egg then polenta and lightly fry them. Delicious with salt and lemon.

See page 104 for a recipe for apple and blackberry leather.





Eating the wrong plants can lead to puking all over yourself, bleeding out of your eyes and death. Mushrooms are especially dangerous. Only eat things if you definitely know what they are and an expert has advised you!

11 MEF032

Good hunting

All animals in the world can be hunted down, harvested and eaten. That includes you.

All of the animals below are eaten somewhere in the world. Which of these animals do you think it's good to kill and eat, bad to kill and eat or somewhere in between? Draw them in an order of your choice on the line across the page.

K o ələ Sheep				
		Tarantula	Dog	
Geese	Grouper			
		Pig		
Horse		Mongoose	CrocoJile	
Pige	eon			
Seal	!	Baloon	Cət	
	Elephant	Whale		
Flying ants				
	Squirrel	Lobster	Cockroach	
AnaconJa		Cow	CoJ	

Good

MEF033 Make a t-shirt bag



Upcycle an old t-shirt into a new bag that's perfect for foraging.



ti MEF034 Got milk?

Which of these things is it okay to drink milk from?

	Right	Questionable	Wrong	
a coconut			П	
a goat	口			
Nestlé	Д	口		
some rice				
a cat			Д	
a cow				
a human	口		口	J J Julie
a tin		Д		
a snake		O		
some almonds	Д			
Ask friends. A	re there a	any that you disa	gree on?	



Only try and milk a mammal with the help of an expert, like a farmer or a mother. Snakes don't have nipples. You can't milk them for milk, just poison. Don't try.

tt MEF035

Become a preservation professional

By preparing and packing preserved foods explorers are able to travel long distances into places where food is hard to find. It would be impossible to cross oceans, trek across many cold wildernesses or visit space without having preserved food.

It's not just extreme explorers that eat preserved food. Most food is only available at certain times of the year, unless you are shipping your food from other places. To keep this seasonal food delicious and available all year round we can preserve it when it is at its tastiest. These days, common ways to preserve food include freezing, sealing food in sterile cans or jars, or using artifical preservatives.

Here are some ways to keep your harvest yummy.

Pickling

You can pickle things in salt water (brine) or vinegar to keep them fresh for a very long time. Chillies, cucumbers, beetroot, onions, ears or any firm vegetables work best.



Jam-making

A delicious and very common way to keep eating fruit all year round is to make jam. You can use all sorts of fruit - just experiment to find your favourite recipe!

Drying

Humans have been drying food naturally using the sun and wind since ancient times. You can dry meat, fish, vegetables or fruit this way. See recipe on page 121 for jerk chicken jerky or page 104 for apple and blackberry leather.

Preserving in honey

Honey lasts an extremely long time without going bad — archaeologists have found honey from Egyptian times that is still edible! Honey is usually used to preserve fruit or other things like ginger.

Fill these jars with preserved things for your next exploration.

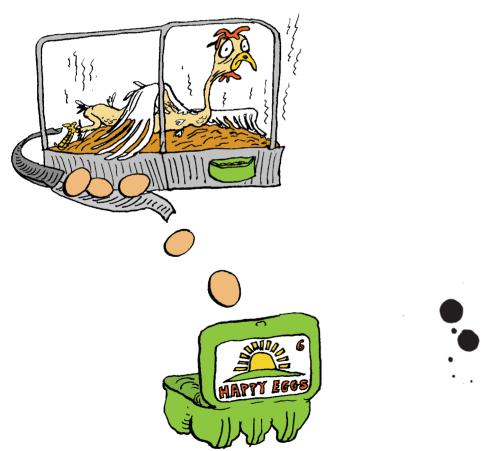


tt MEF036

Egg propaganda

Some companies use labels and adverts to make people think their food is free and friendly when it's not. Using misleading information or presenting it in a biased way to fool, influence or convince people like this is called propaganda.

Fill this page with misleading, tricky or fibbing food labels.



11 MEF037

Which comes first...

... chickens or your eggs? Find out where your eggs come from and only eat eggs from free-range birds. Don't be caught out; check the ingredients label when you eat from tins, boxes and restaurants.

Keep a record of your biggest free-range eggs by drawing around

them here.



tt MEF038

Traffic light your food

Everything you buy has an effect on someone, something and somewhere. At the shops these effects are mostly hidden.

Investigate how your food affects other people, wildlife and places by discovering the answers to these questions. Keep a traffic light record of your findings after asking the questions below.

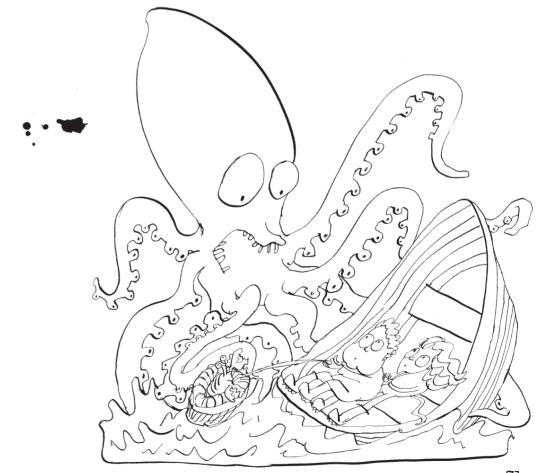
- ~ Were the people who grew your food given a living wage?
- ~ Were the animals well treated?
- ~ Is the animal or plant being over-harvested?
- ~ Was the food transported a reasonable distance?
- ~ Was the place it came from treated well?



As a guerrilla geographer you should ask questions like these to help you decide if you will buy a product or not. Labels can often help but sometimes you need to do your own investigations.

Go fishing

Add something fishy here.



TT MEF040

Eat the whole thing

Buy a free-range bird with feathers, pluck, perform an autopsy, then cook and eat as much of it as you can. Label the parts of Charlie Chicken below and rate them out of ten for taste.



TI MEFO41

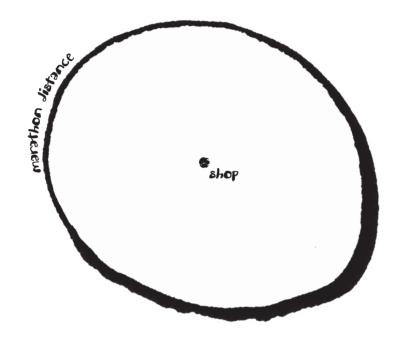
Buy direct

Buy ingredients for a meal from your local farmer's market. Write your shopping list here.



Do a marathon harvest

Only buy food that's been grown, harvested and produced within a marathon (26.218 miles or 42,195 metres) of the shop.



What foods are inside the allowed area?

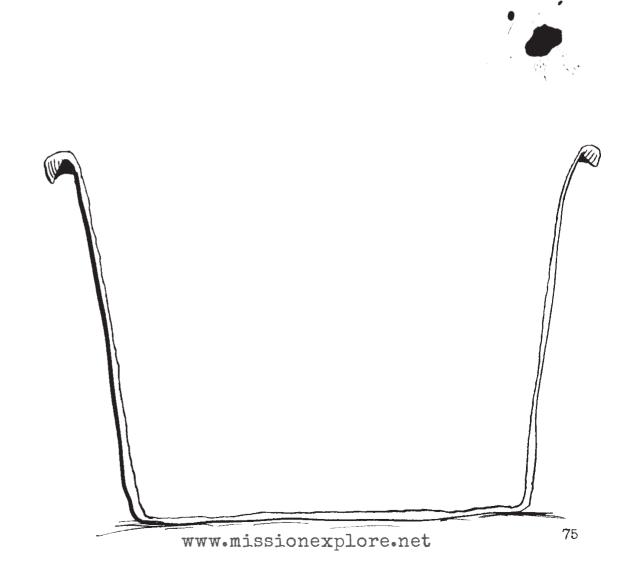
What foods are outside the allowed area?

Which shops are best for sourcing local foods?

TI MEF043

Make a disaster plan

What if a disaster strikes? Plan what you would need to survive for a month and fill this box with your supplies.



Label unseasonal food

Shops sometimes label food that's in season to tell you it's fresher and more environmentally friendly. They're not so good at labelling food that's out of season and transported a long way.

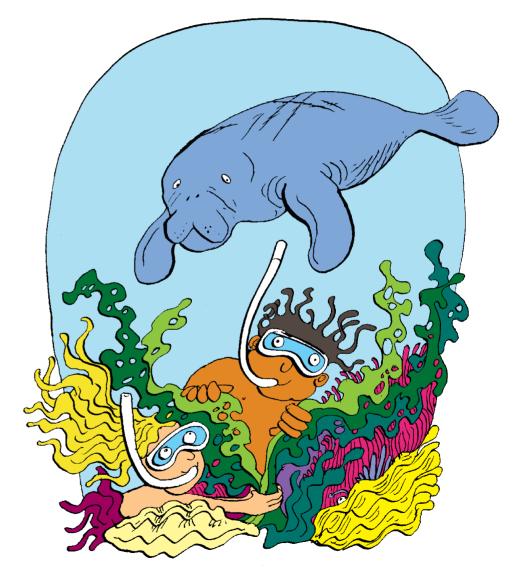
Use this space to design an 'out of season' food label below then try and persuade your local supermarket to display it on their unseasonal food.

www.missionexplore.net





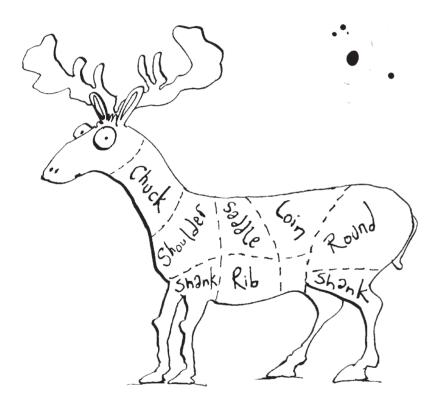
Watch another animal harvest food



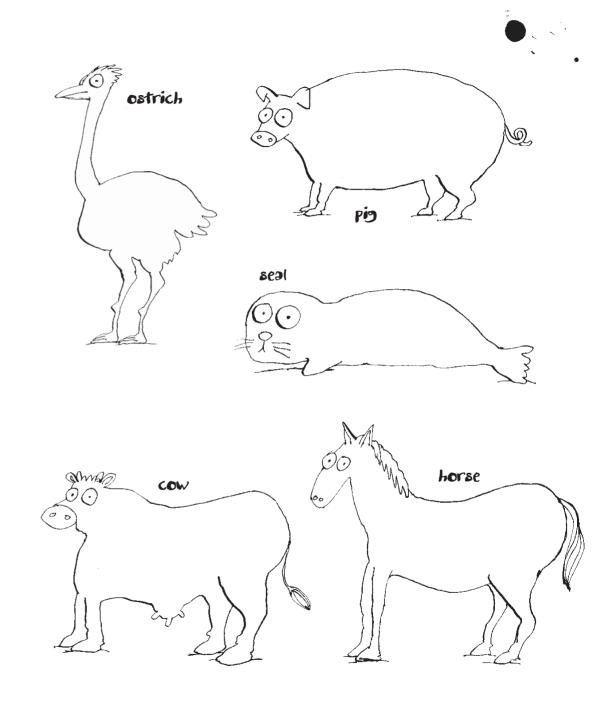
TT MEF046

Learn your cuts

Ask your local butcher about the different cuts of meat on animals. Is there a big difference in their taste, texture, smell, healthiness or appearance?



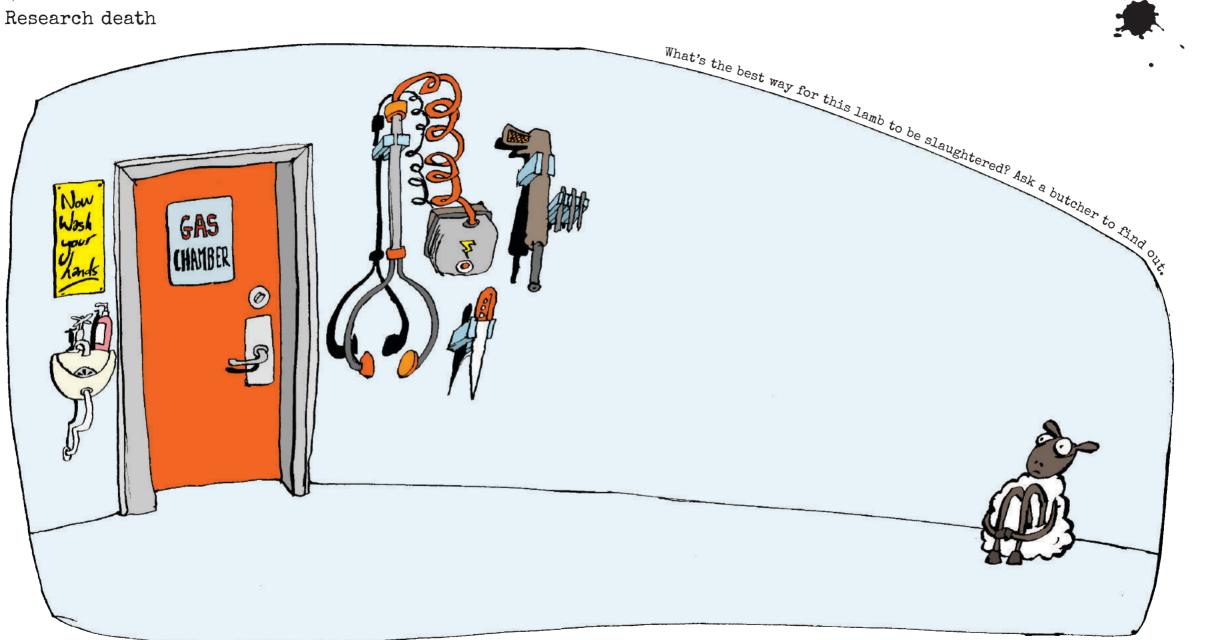
With the help of your butcher label the different parts of these other animals, just like has been done for Deary Deer above.



MEF047

Research death





tt MEF048

Hold an overharvest festival

People on Earth are harvesting fish, trees, fertile soil and other resources more quickly than they can reproduce, regrow and replenish. If we don't become smarter about what, where, when, how and how much we harvest we'll endanger the lives of wildlife and communities around the world. To raise awareness of this issue, hold an overharvest festival. Find out more about overharvesting and ecological debt on page 260.

Use this planner to help you organise your event.

~ Event name ~

~ Date ~

~ Overharvested foods to celebrate ~

~ Games ~

~ Performances ~



This mission is about living sustainably and finding a balance. You could invent games to play where contestants must balance in some way, or avoid going too far.

www.missionexplore.net

MEF049

Delicious dilemmas

Is it better to eat just...

sprouts for a week

crisps

fair trade food

people friendly food

plants

spaghetti

food direct from a farmer

everything

garlic for a week

chocolate

local food

environmentally friendly food

meat

fish

food from a supermarket

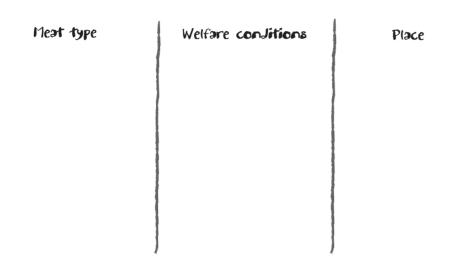
anything

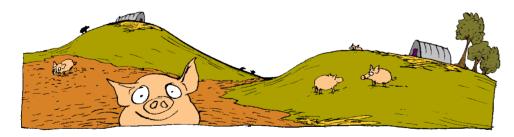


tt MEF050

Where in the world do your pigs come from?

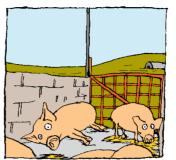
Eat pork? Visit your local supermarket to find out where it gets its pig meat from. Record what you can find out about the place where it was reared.





Free-range

Free-rangers live outside, have freedom to explore outdoors and sleep in straw filled huts. In the United Kingdom about 4% of pigs are reared in this way.

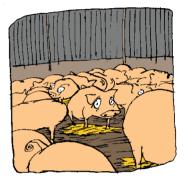


Outdoor-bred

Sow (mother pigs) give birth outdoors but are transported indoors along with their piglets after a few weeks.

Indoor straw

65% of British pigs spend their whole lives indoors in crates, pens and other systems with straw inside.



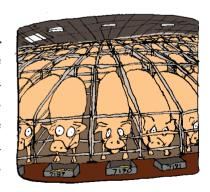
Indoor slats

These pigs live their whole lives indoors, on slats and without straw to play with.



Sow stall

Mother pigs are kept in a small stall while pregnant, then put in a crate to give birth to and suckle their piglets before slaughter. Sows can spend five years in cages where they eat, poo and sleep. This is illegal in the UK, but practiced around the world.





If you are in the UK, look out for the Freedom Food label to avoid eating animals that have been treated badly. Don't eat pork? Adapt this mission to research another animal. 85

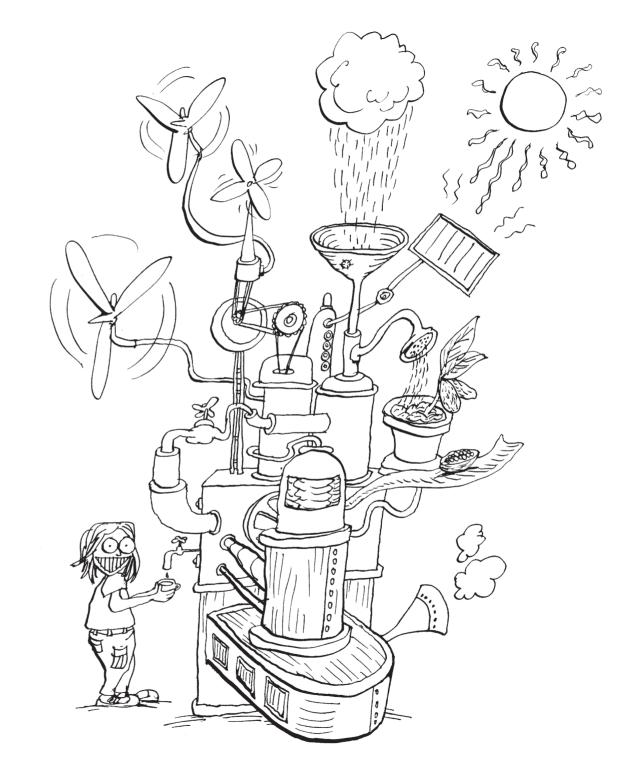
MEFO51

Harvest the elements

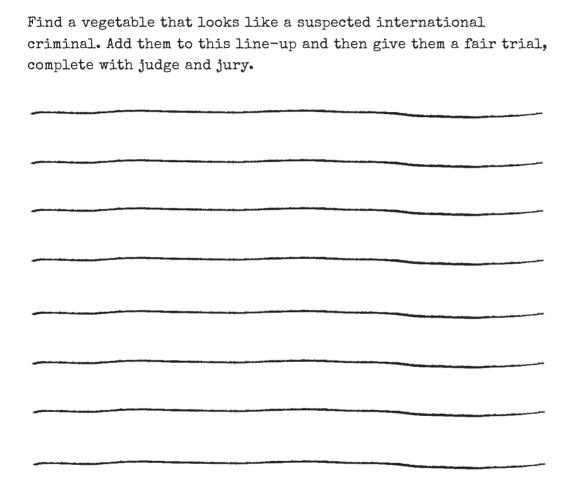
Design a machine that can cook food by harvesting wind, rain and solar power.







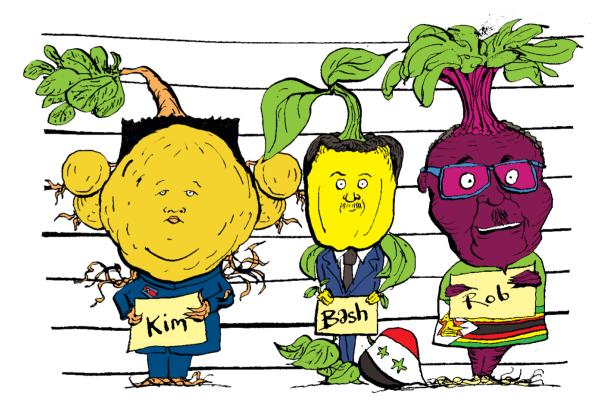
Interrogate a vegetable





Punishment or compensation:





MEF053 Culinary cartography

Draw a map of where your local free food supplies are.



MEF054 Harvest bread

Completed mission MEF019? It's time to harvest. To turn your wheat into flour you have to cut it, dry it, thresh it, winnow it and mill

it. Find out how below then turn to page 138 for a bread recipe.



Stand your wheat upright and tie it into bundles a few inches thick. Store these bundles somewhere dry where rodents or bugs won't be able to nibble them.

Winnowing separates the wheat from the chaff and small bits of straw. Pour the wheat from one container to another in a stiff breeze. This blows away the chaff leaving just wheat for milling.

Test if your wheat is ready by rolling the 'ear' between your hands to free the berries inside. Squish one between your thumbnail and forefinger. If you can't, harvest the wheat using garden shears.

When ripened into a nice golden colour, thresh by smashing a handful of wheat about inside a barrel until the grain falls off the stalks.



Home milling is difficult but there are community milling days in many places. See page 258 to find one near you.















Cook

Being able to cook is an essential skill, not just for you, but the entire human race. Heating and mixing food has allowed our species to live in places and in numbers that would otherwise be impossible. By changing the temperatures and mixtures of meats, plants and waters we can change their chemical compositions and molecular positions. This kitchen chemistry alters tastes and can shift ingredients from being harmful to being useful.

In this chapter you'll discover dishes that will help you explore and impress your friends. You'll also find some missions that explore food itself. For any dish you'll need ingredients, a little scientific knowledge, some equipment, a recipe and a place to cook.

Ingredients

To cook anything you need to have ingredients: the bits of plants and animals that you can chop, grate, slice, heat and whizz into your final dish. The aim is to mix and change your ingredients so that they taste, look, smell, feel and even sound better. Picking good ingredients is the first step to making a good meal.

Recipe

A recipe is a list of instructions that show you how to make a dish. It will usually tell you how much of which ingredients you need, how to prepare them and how long to cook them for. If you have a recipe to follow, most things are fairly easy to cook. If you taste something good, try and get the recipe off the cook so you can try to make it yourself.

Science experiments



Each time you cook you experiment. As well as changing flavours and textures, you can change the state of your ingredients. By using heat you can turn a solid into a liquid, and by cooling you can turn a liquid into a solid.

Controlling how your food changes state can be really useful for explorers. Used in the right way, boiling, freezing and drying can make food last longer.

You are what you eat

Like all other food, your body is packed with ingredients that include edible minerals and molecules. Your main challenge in life is to renew these ingredients so that your body can not just survive, but grow and thrive. If you eat the right balance of ingredients then your body will be nourished with the fuel it needs. If you eat too much or too little of any ingredient you will be more likely to suffer from diseases, have weight problems or not have the energy you need to explore.



Making heat

Being able to make heat, especially fire, is arguably the most important thing that people have ever learnt to do. Making fire has given people the ability not only to cook food but keep warm, see at night, fight off wolves, clear forests for agriculture, make metals, power vehicles, create electricity and much more. With the help of an adult you can use fire as a tool too.

Making fire

Campfires are a great way to cook when out exploring. Made in the right way a fire can be used to grill vegetables, boil rice, bake fish and melt chocolate over bananas. Made in the wrong way it can be dangerous and spread wildfire. Many campsites and parks have strict rules about using fire for cooking. Get trained before making fires and always get permission before starting one.

Like you, fire requires air to breath, fuel to burn and heat to survive. Every fire needs a mix of these three things:

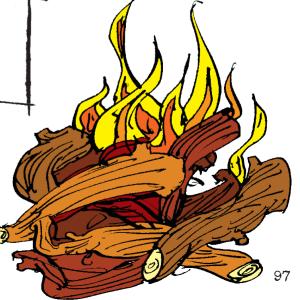
- ~ Heat to start the fire
- ~ Fuel including dry wood, gas and oil
- ~ Gas, especially oxygen that's found in air

To have a good fire you need to balance these three things. Too much and your fire could become dangerously out of control. Too little and it will go out. There are lots of different ways to make a fire, but here is a general guide.

Wood fires

- 1. Find some dry wood and a space away from bushes, tents or anything else flammable.
 - 3. Twist three sheets of dry newspaper into balls and place them in the centre of your fireplace.
- 5. Lean some medium pieces of dry wood over the paper and kindling. Make sure your wood will not collapse once the kindling and paper has burnt.
- 7. Once the paper is alight lean down and blow gently through the fire to help it burn. Add fuel to keep your fire alive.
- 8. Once you're done, let your fire burn out. To cool it down quickly, spread the wood fuel out in the fireplace.

- 2. Clear a space for your fire, leaving a few feet where there is nothing that can burst into flames.
- 4. Make a pyramid of small dry sticks (kindling) above the paper by leaning them against one another. Leave gaps for oxygen to get in.
- 6. Light the paper with matches, a lighter, a magnifying glass, sticks or flint.



Gas fires

Gas cookers burn gas. Gas ovens at home use either piped natural gas or bottled gases like propane. Gas ovens are often easy to control, allowing you to use precise temperatures.

When out exploring, a mobile gas cooker can be a great option. Dry wood is not always available and in some campsites burning wood is not allowed. Camping gas is light and can be packed away easily.



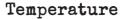
Gas can explode you! If you leave the gas 'on' it can fill a tent or room with flammable gases. If someone turns on a light or makes a spark... BOOM! Make sure you turn gas off once you've finished with it. Never use a gas cooker inside a tent. Always get permission before using gas.

Electric cookers

Electric cookers use electricity to make heat. The electricity might have been made by windfarms or other cool technologies, but it's mostly made by fires creating heat that turn wheels that rub special machines that then create electric power.

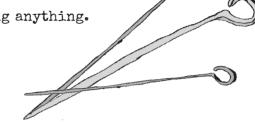
Car bonnets

If it's a hot day you can cook on a bonnet of a car or even a flat rock. Metal and rocks can get very warm in the sun and given enough time you could cook an egg, a pancake and many other things like this.



These questions are crucial to cooking anything.

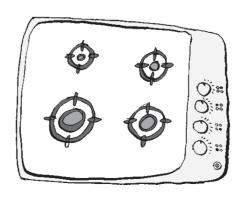
- 1. How should I heat it?
- 2. How hot should it be?
- 3. How long should I heat it?



The first question, 'how should I heat it?', is asking if the food should be grilled, roasted, boiled, fried or something else. Turn to page 143 for inspiration. By experimenting with different temperatures, ingredients and methods you can make different dishes. That's what cooking is.

Guerrilla cooking

Go guerrilla in your cooking by twisting where, when, how, what or who you cook with. Just ask yourself 'what if I made this bigger, smaller, stranger or for more people?' and then 'so what? Would the effects be good or bad?'





Don't cook yourself



If you've not already done so, at some point in your life you will cut, burn, scald, scrape, poison and stab yourself while cooking. The questions you need to ask yourself are when, how badly and what you can do to minimise the length of time you scream and bleed. These simple tricks will help you to survive making a meal.

- 1. Get permission before cooking.
- 2. Don't spread diseases; wash your hands.
- 3. Remove jewellery, wear an apron, roll up your sleeves and tie back hair to keep food clean.



- 4. Before starting, make sure your equipment and where you are cooking is clean. If you are exploring outdoors it is much harder to keep your food and equipment clean, but just as important.
- 5. Follow instructions. Some things need to be cooked in special ways or they can poison you.
 - 6. Avoid being clumsy. If you're passing a knife to someone, give them the handle. If you're cooking on a hob, make sure pot handles can't be bashed. If you're cooking in an oven, always use oven gloves. Always think about what you are doing.

Burnt yourself or cut your arm off? Turn to page 254 for first aid advice.

Save energy

When putting a log on an open fire it is easy to see how much fuel is being used and how much is left. When burning gas or using an electric oven it's less obvious. Saving energy is good for the environment and saves money. When living outdoors or on an expedition saving fuel can also save lives. Here are three great tips for keeping your energy use low.

- 1. Use a lid.
- 2. Use a lid.
- 3. Use a lid.

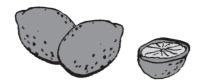


By cooking at the right temperature and for the right length of time you'll not only save energy, but your food will taste better and not burn or boil over. You can speed the process up by using clever equipment like pressure cookers and steamers.

The environment

Currently, there are over 7 billion human beings on planet Earth. Our population is growing and becoming wealthier and, as a result, is cooking and eating more food. The desire to farm more animals and plants has led to the removal of forests and turned grasslands into deserts. Burning of fuels including gas, coal and oil is affecting our weather and climate too. For many people, places and wildlife around the world this is having disastrous effects on their lives. Minimise your negative effects by using as little energy as you can. Simply using a lid on your cooking pots is a good start.

MEF055 Cook in acid



Make ceviche, a South American dish that's 'cooked' in citrus juice. Try dipping tortilla chips in this vegetarian version or chunk it up with some very fresh sustainable fish.

4 or more limes

1 medium onion

2 tomatoes

4 cucumber

Tortilla chips, to serve

Extras:

Sweet or chilli pepper

Coriander

Mushrooms

Fish, squid, crab or even lobster

1. Chop the onion finely and place in a mixing bowl. Chop everything else into pieces small enough to fit 3 or 4 on a single tortilla chip.

3. Squeeze the lime juice over your vegetables so that they are completely covered.

5. Give it a final stir then _ serve with the tortillas.

2. Put any waste in your compost.

4. Cover and leave in the fridge for 3 to 4 hours. The acid in the lime will slowly 'cook' the vegetables and fish.

Serving suggestion: munch on a beach at sunset.



Normal heating processes usually prevent fish from making people sick. Seafood 'cooked' in this way can be poisonous. Make sure that any seafood you use is very fresh.

TI MEF056

Invent a cheese



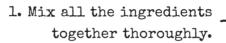
Make and name a new cheese that's inspired by where you live, your shoes or a cat. You can adapt this recipe by using your own unique mixture of herbs, flavours and spices instead of thyme and lemon.

1 kilo full fat organic yoghurt

1 tsp salt

2 tsps fresh thyme leaves

Zest of one lemon



3. Leave for two days, then chuck away the whey (the liquid in the bowl).

5. Put your balls into a sterilised container and cover with olive oil to keep them fresh for up to two weeks.

2. Pour the mixture into a cheesecloth or a double layer of muslin, tie the top and hang over a bowl or bucket in the fridge.

4. Take the curds (the solid stuff in the cheesecloth) and roll them into 3 cm balls using oiled hands.

Serving suggestion: claim Protected Geographical Status for your new cheese from the European Union. If successful, this will mean that people from other places will not be allowed to copy you.

tt MEF057

Cook without an oven

Cook some apple and blackberry roll ups to take with you on a micro expedition. No ovens allowed!

500g cooking apples 500g blackberries 100ml water 200g caster sugar





- 1. Peel and core the apples.
- 3. Cool the mixture slightly and blend until smooth.
- 5. Cover with a clean tea towel and put this in a warm place (like an airing cupboard) for 24 hours or until completely dry but slightly tacky.

- 2. Put the apples, blackberries, water and sugar in a pan. Simmer and stir for twenty minutes.
- 4. Line a baking tray with baking parchment and spread the mixture out thinly no thicker than a £1 coin!
- 6. Dust with icing sugar, then cut into strips, roll into coils & store in an airtight container. They will last for a month in the fridge.

Serving suggestion: chomp on these fruity wheels on a journey to the end of a line.

MEF058

Cut country cookies

Make and bake cookies that look like countries.

100g butter or margarine, softened 100g soft brown sugar 100g self-raising flour ½ tsp vanilla extract

70g oats

1 egg

Extras - raisins, chocolate chips, chopped nuts...

- 1. Set your oven to 170°C/ 350°F/gas mark 4.
- 3. Stir in the flour, oats and extras (if using) to form a soft dough. Add some more flour if it's too sloppy.
- 6. Bake for around 15 minutes and let the biscuits cool for 5 minutes before tucking in.

- 2. Cream the butter and sugar in a bowl, then mix in the eggs and vanilla extract.
- 4. Shape the cookie dough like real or imaginary countries and place them on a lined baking sheet with room to spread out when they are in the oven.

Serving suggestion: use your cookies to demonstrate continental drift.

11 MEF059

Reconstruct a deconstructed salad

1. Find a salad that someone has carefully constructed for you.

2. Deconstruct the salad putting each ingredient into separate piles.

3. Now reconstruct the salad however you like.

4. Eat.

Before sketch:



After sketch:

106

Suggestion: try doing this with a chicken. See page 72.

11 MEF060

Create Micro(nesia) pancakes



Make lots of micro pancakes. Move your island pancakes around so that they look like a map of an island chain, nation or region. Go extreme and recreate the whole of Micronesia in the Pacific Ocean.

½ tsp white wine vinegar

150ml milk

110g plain flour

1 tbsp sugar

½ tsp bicarbonate of soda

1 egg

Butter or oil

2. Put the flour, sugar and bicarb of soda in a bowl.

4. Heat a non-stick pan on a medium heat and add a little butter or oil, tipping the pan to coat it evenly. Spoon blobs of batter into the pan, leaving space in between.

6. Serve warm with the topping of your choice like jam, honey, marmite, golden syrup, balsamic vinegar, etc.

1. Add the vinegar to the milk in a jug and let stand for 10 minutes.

3. Mix the egg with the vinegary milk, and then slowly whisk this mixture into the dry ingredients to form a smooth batter.

5. Cook for a minute or until bubbles start appearing, then using a spatula flip them over and cook for another 30 seconds or until golden brown on both sides.



You can experiment with the size of your pancakes depending on how much batter you spoon into the pan. What's the smallest micro pancake you can make?

ti MEFO61

Make fairly friendly energy bars

Make these energy bars as fair and friendly as you can.



100g sunflower seeds

50g flaked almonds

100g butter

100g demerara sugar

3 tbsp honey

100g raisins

1 tsp cinnamon

1 tsp nutmeg

Zest of one orange

1. Heat the oven to 150°C/300°F/gas mark 3, then butter and line the base of a 18 x 25cm tin.

3. Mix the butter, sugar and honey in a pan and stir until the butter melts.

5. Squish this all into the tin and bake for 30 minutes.

2. Mix the oats, seeds and almonds together and toast in the oven for 10 minutes.

4. Stir the butter mixture and all the other the ingredients into the oats mixture.

6. Wait until cool then cut into 12 bars.





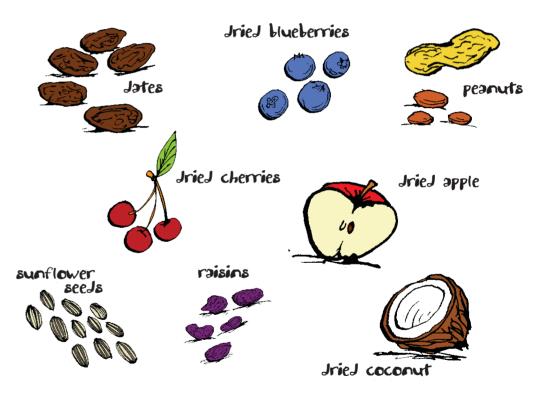
You are dependent on lots of different places in the world to make these international energy bars. Do research to discover the ingredients that are most friendly to people, places and wildlife.

11 MEF062

Pack portable provisions

Make this trail mix to keep you going on your explorations.

Take 100g of chopped dried fruit, 50g of nuts, 50g of seeds and mix well. You're finished! Keep in an airtight container and your trail mix will last up to a month.





Trail mix can be made with all sorts of delicious things: use the ingredients above or any dried fruits, nuts, seeds, cereal, pretzels or even chocolate chips. Try out different combinations and use your imagination to find the most delicious mix to take on your missions.

Be a crisp taste tester

Use carrots, beetroot, sweet potato and regular potato to make crisps. Give each crisp marks for ease, taste and crunch. Are they better than your favourite brand?

1. Heat the oven to 180°C/350°F/gas mark 4 and peel your chosen veg while you're waiting.

2. Slice your veggies as thinly as you can using a mandolin or the slicer on a cheese grater.

3. Chuck your veggie strips in a bowl and drizzle some olive oil over them, mixing it all up with your hands.

4. Lay the strips neatly on a baking sheet (so they don't overlap much) and sprinkle over plenty of salt and pepper plus a sprinkle of cinnamon.

5. Cook for 15 minutes, then turn your crisps over and cook for 15 more minutes (or until they look like crisps).

6. Once cooled, store your crisps in an airtight container where they will keep for up to three days.

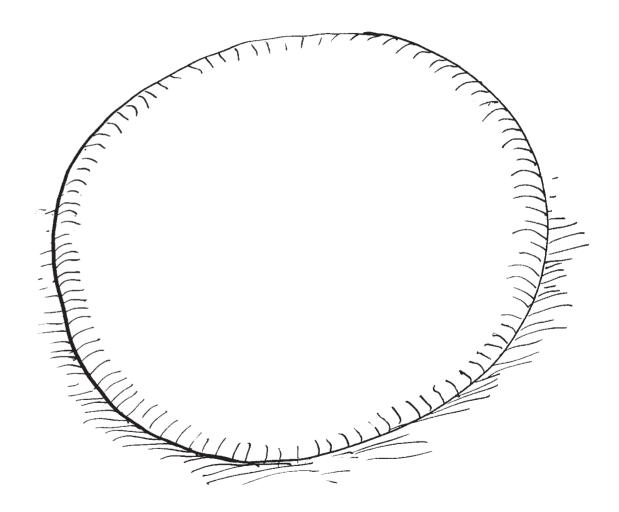


Serving suggestion: hold a sampling event for your friends.

11 MEF064

Be the creator of a pizza planet

Decorate this pizza like planet earth, then make, cook and eat it.



Serving suggestion: go extreme and animate your pizza to make it look like the earth rotating.

tt MEF065

Conduct a psychosoup traffic light experiment

Cook these three different soups for some friends. Which of the soups attract or scare the most people. Is it the ingredients or the colours that make people desire or fear each of these soups?

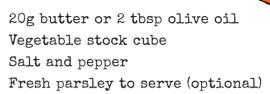




Psychogeography is the study of how places make people feel. Psychosoupography is a term we've invented that means how people feel about soups. A soup is a place, so it's a very specialised sub-discipline of psychogeography. Why not make up your own word or subject too?

MEF065a Squash soup (orange soup)

1 large onion, chopped
1 butternut squash, peeled and
chopped into smallish chunks
1 clove garlic, crushed
5 sprigs fresh thyme

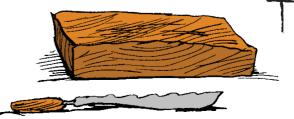


2. Add the onions and thyme and cook for 5 minutes, until the onions start to look transparent. Add the garlic and cook for 2 minutes.

4. Boil a kettle and pour hot water over the veggies until they are just covered. Crumble the stock over the top and stir well.

6. Take the pan off the heat and cool slightly before blending until smooth.

- 1. Add the butter or oil to a large pan and heat gently.
- 3. Add the squash and some salt and pepper, then stir and leave to sweat on a low heat with the pan lid on for 10 minutes.
- 5. Simmer for around 20 minutes or until the pumpkin is tender. Add more water if you think it's looking a bit dry. Fish out the thyme.
- 7. Ladle the soup into serving bowls and sprinkle parsley on top before serving.



MEF065b Broccoli soup (green soup)

1 medium onion, finely chopped
1 tbsp olive oil
1 garlic clove, crushed
300g broccoli, cut into florets

Vegetable stock cube Salt and pepper Crème fraîche to serve (optional)

- 1. Heat the oil in a large saucepan and sauté onions for 5 minutes, or until they look transparent. Add the garlic and cook for 2 minutes.
- 3. Boil a kettle and pour hot water over the veggies until they are just covered. Crumble the stock over the top and stir well.
 - 5. Remove from the heat and cool slightly before blending to a puree.

- 2. Add the broccoli and some salt and pepper, before stirring and leaving to sweat on a low heat with the pan lid on for 10 minutes.
- 4. Bring to the boil, reduce the heat and simmer gently for around 15 minutes, until the broccoli is tender.
- 6. Taste and add more seasoning if needed. Ladle the soup into serving bowls serve with crème fraîche.

Tomato soup (red soup)

1 onion, chopped

1 large carrot, chopped

1 large potato, peeled & chopped

1 red pepper, chopped

1 tin of chopped tomatoes

2 garlic cloves, crushed

Vegetable stock cube

800ml water

1 tsp sugar

1 tbsp tomato puree

Cream to serve (optional)

- 2. Add the carrot, potato and red pepper and cook for a further 5 minutes.
- 4. Simmer for 20 minutes or until the veggies are tender.
- 6. Taste and add more seasoning if needed. Serve with crusty bread and a swirl of cream if you fancy.

- 1. Heat the oil in a large saucepan and sauté onions for 5 minutes, or until they look transparent.
- 3. Add the tinned tomatoes, garlic, sugar, tomato puree, stock and water and bring to the boil.
- 5. Take off the heat and cool slightly before pureeing in a blender.



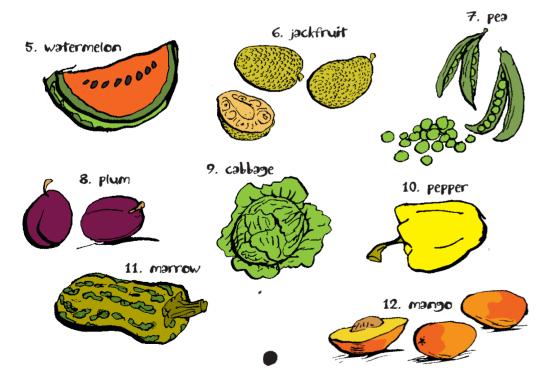


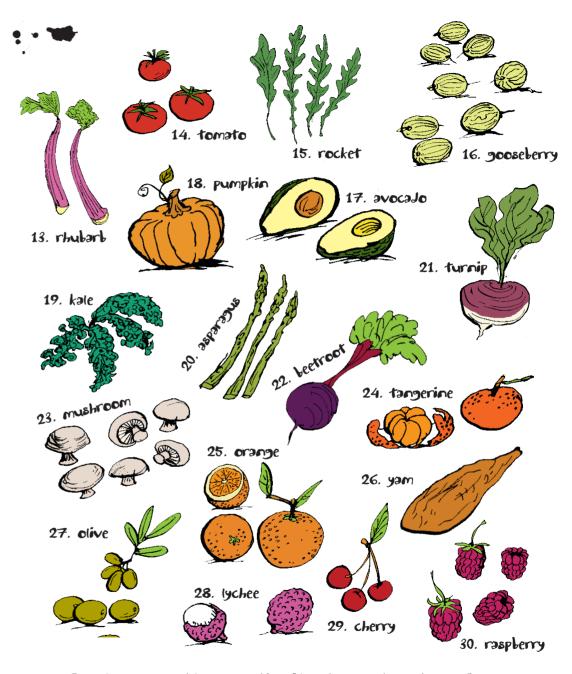
Play 5-in-a-day

Play 5-in-a-day by following these simple rules. You need 5 dice.

- 1. Roll 5 dice. You'll get a number between 5 and 30.
- 2. Record which of the fruit and vegetables on this page matches your number.
- 3. Reap (collect) it from wherever you can.

Do this 5 times until you have 5 different ingredients. Cook and eat them by the end of the day.



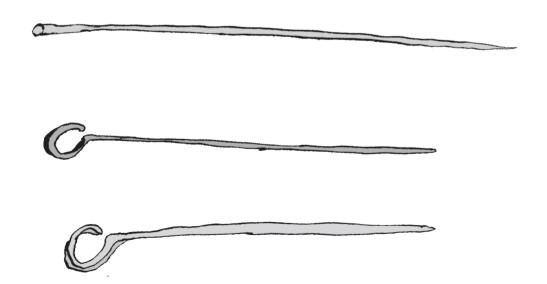


Serving suggestion: use the dice to create extra rules for this game.

Cook like a caveman

One day one of our most distant ancestors decided to nibble on an animal that had died in a fire or some meat that had fallen into one. After tasting cooked meat for the first time they decided it tasted pretty good and set about repeating the 'accident'. At first they probably used their bare hands, burning themselves a few times in the process. Then one of them would have had the brainwave to use a stick as a tool to spear some meat, skewering it to be hung over the the fire. After a number of experiments that involved a mixture of burning and undercooking the meat, they perfected the art and made the first perfect kebab.

Stack these sticks with skewered meat, fruit, vegetables, marshmallows and other treats.



Make your kebabs by following these steps.

1 clove garlic, crushed
6 sprigs fresh thyme

1 tbsp brown sugar

3 tbsps balsamic vinegar A good glug of olive oil Some salt and pepper

2. Using wooden skewers?

Soak them for 5 minutes before stacking them with food. This will stop your food burning onto the sticks.

1. Mix all the ingredients together then marinade your meat and vegetables in the delicious flavours for an hour or more.

3. Hang over a fire, grill or bake for 5-10 minutes until cooked.

Change your ingredients to make international varieties of kebabs. Try making a:

Chinese Chuanr

🗍 Indian Tunda Kabab

Pakistani Seekh Kebab

Armenian Shish Kebab



11 MEF068

50g raisins

120

Spice up your snacking



Adapt this summer spicy hot snack to reflect spring, autumn, winter, dry and wet seasons.

2 tbsps oil	100g cornflakes
1 tsp mustard seeds	Two pinches salt
1 tsp turmeric	2 tsp sugar
6 curry leaves	1 tsp fennel seeds
50g peanuts	1 tsp chilli powder
50g pumpkin seeds	1 tbsp lemon juice

- 1. Heat the oil in a wok and cook the mustard seeds until they start popping.
- 3. Stir in the fennel seeds, chilli powder and lemon juice.
- 5. Once cooled, store your mix in an airtight container where it will stay fresh for two weeks.



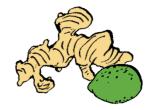
- 2. Add the turmeric, curry leaves, peanuts, pumpkin seeds and raisins, then stir and cook for about a minute.
- 4. Take the pan off the heat then mix in the cornflakes, salt and sugar.



This spicy snack has loads of variations and different names: chevda, Bombay mix, Punjabi mix or chanachur.

www.missionexplore.net

MEF069 Don't be a jerk



Make this Jamaican jerk chicken jerky to take as a snack on your next exploration, but don't be a jerk... use a free-range bird.

500g chicken breast Juice and zest of 2 limes 1 chopped chilli with seeds

1 tbsp honey

1. Slice the chicken breast into 0.5cm thick slices, removing any excess fat.

3. Pat the chicken strips dry and space them out on a wire rack so they are not touching each other.

5. Once cooled, store your jerk chicken jerky in an airtight container in the fridge, where they will last up to 3 weeks.

1 tbsp fresh thyme leaves

1 tbsp fresh grated ginger

2 tbsp oil



2. Put the chicken into a container and add the rest of the ingredients. Mix well and leave in the fridge overnight.

4. Put the rack in an oven at its lowest setting, ideally 80°C/140°F/gas mark ½. Cook until dry but not brittle - usually 3 to 5 hours.



Serving suggestion: devour these chicken snacks while ranging free in a suburban jungle.

Bake the most profitable cake



Raise money for charity (or yourself) by mixing, baking, decorating and selling cakes. Earn as much money as you can without dropping the quality of your produce.

How much does it cost? (Expenses)

How much do your cakes sell for?

Ingredients

Energy

Your time

Hidden costs

(Income)

= profit/loss Income - Expenses



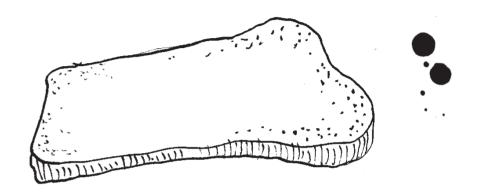
You can change your ingredients or charge more for the product to increase your profit margin.

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11 MEFO71

Strata Sandwiches

Add tasty layers to this enormous sandwich. After finishing your design move to the making and eating phases.





11 MEF072

Turn cream to ice



½ cup sugar

½ cup milk

½ cup whipping cream

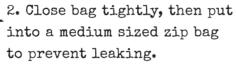
½ tsp vanilla essence

For the shaking:

4 cups ice

4 cup salt

1. Put the sugar, milk, cream and vanilla essence in a small zip lock bag.



3. Put the ice and salt into a large zip bag.

4. Add the smaller bags, seal and shake for about 20 minutes, or until ice cream is solid.



Wear warm woolly gloves. You might have to add more ice if the first lot melts before your ice cream is icy. This mission is best carried out with a group of shakers.

11 MEF073

Make a meal for you and a horse

Go on a horseback expedition to find a ______. Turn some oats into these flapjacks to boost your energy levels and take some raw ones for your horse to graze on too. Don't have a horse? Ride a giraffe instead.

150g butter

75g soft brown sugar

3 tbsp golden syrup

250g porridge oats

Extras:

Dried cranberries

Raisins

Crushed nuts

2. Grease and line a 20cm square tin with baking parchment.

3. Heat the sugar, butter and golden syrup in a saucepan until the sugar has dissolved. Then stir in the oats.

4. Empty your mixture into the tin and spread it out.

5. Bake for 25 minutes, or until going golden around the edges.

6. Remove from the oven and cool for 10 minutes before taking out and cutting into pieces.

1. Preheat the oven to 170°C/350°F/gas mark 4.



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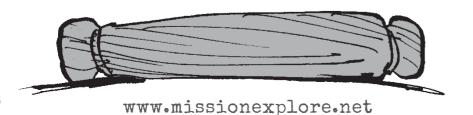
11 MEF074

Culinary art collector

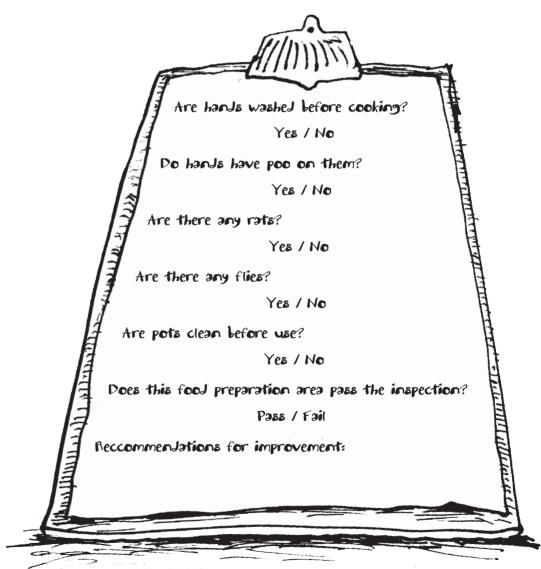
Explore your community's culinary arts by discovering its very best cooks. Meet with restaurant chefs and old cooks and ask for a master class in one of their favourite dishes.

Stick or record the recipes here.



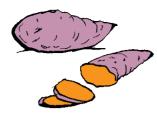


Rate how clean and hygienic your kitchen or woodland is.



tt MEF076

Become a potato head



Find and cook 10 varieties of potato from 10 different places in 10 different ways for 10 different people in 10 different locations.

Try roasting, steaming, chipping, frying, boiling, sautéing, baking, casseroling, stewing, mashing, making cakes or....

Keep track of your varieties of potatoes here.







Go extreme: find and cook 100 varieties of potato from 100 different places in 100 different ways for 100 different people in 100 different locations.

11 MEF077

Create ginger beer monsters

Homemade ginger beer is a living thing! Make a bubbly, delicious monster to drink.

Step one:

300ml tepid, filtered water Large pinch dried yeast 1 heaped tbsp powdered ginger

1 heaped tbsp sugar

Step two:

51 water 600g brown sugar

Juice and zest of four lemons

- l. Pour the water into a clean
 jar. Add all the other step one
 ingredients and mix. Cover
 the open jar with muslin.
- 3. On the seventh day, strain your monster into a jar through some clean muslin.
 - 5. Mix in the liquid from your strained monster.
- 7. When you see bubbles on the sides of the bottles (5-7 days), chill and glug.

- 2. Each day for 7 days stir in 1 tsp of ginger and 1 tsp of sugar. Your monster is alive when it get slightly frothy.
- 4. In a large saucepan, mix all the step two ingredients. Heat gently & stir until the sugar JUST dissolves.
- 6. Put into clean plastic bottles. Don't put the caps on too tightly and don't use glass bottles they might explode!

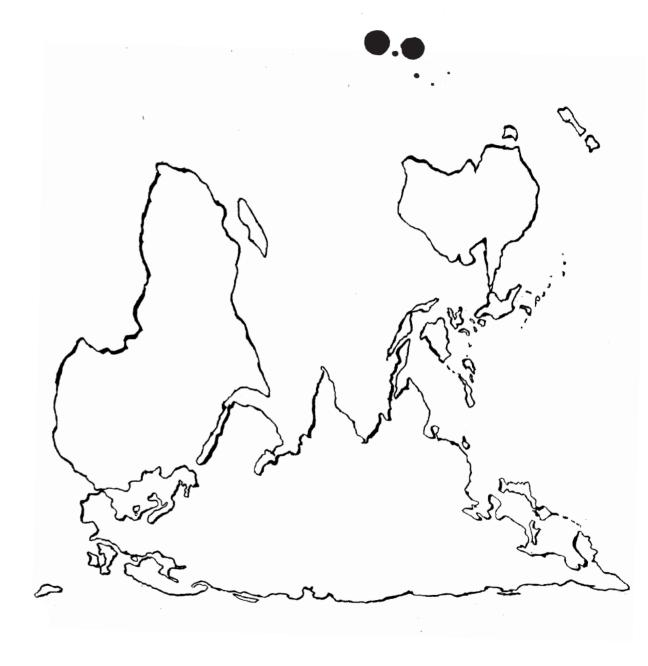
Serving suggestion: drink while munching ceviche (see page 102).

11 MEF078

Map your recipes

Where in the world aren't your recipes from? Colour in the origins of your cooking until the whole of this map is covered.





tt MEF079

Preserve grapes...

...make raisins to take on your explorations.

One bunch of seedless grapes

Remove all the stems from the grapes and wash them, then gently pat dry.

Cover the dish wih some clean cheesecloth or other material that will stop any bugs or dirt getting in.

After five days you will start to see a difference.

When your raisins are ready,
put them in an airtight
container where they will
last a month.



Arrange the grapes on a large dish so they are not touching each other

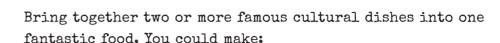
Find a warm place in your house that gets lots of sunlight and put your dish there - then wait!

Take a taste test to see if they are dry enough to be raisins, and if not, wait for another two days.

Serving suggestion: eat your raisins on the go, use them in the oat bar recipe on page 125, or the trail mix on page 109.

11 MEF080

Create a cultural mash-up



- ~ Indian masala + Cornish pasty = masala pasty
- ~ Arabic coffee + Chinese spring roll = Arab spring roll
- ~ Japanese sushi + Mexican burrito = sushi burrito
- ~ Ghanian fufu + French onion soup = French onion fufu

Write your mashed-up recipe here.







11 MEFO81

Design a menu

Create a three course menu that's good for the taste buds, mind, body and environment.

Design your dishes so they:

- ~ are tasty,
- ~ are healthy,
- ~ are fair and friendly for the growers,
- ~ are as friendly as possible to animals and plants,
- ~ have ingredients that have travelled the least possible distance,
- ~ and need the least amount of energy to be cooked.

Plan your menu below. Can you persuade a local restaurant to stock your inventions?

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TI MEF082

Make the oldest edible fruit salad

Explorers have long used tinned rations to keep food fresh and healthy. As well as soups, puddings, fish, meat, beans, peas and jams, you can get lots of different tinned fruits from your local shops. Find the oldest tins of edible fruit you can to make this elderly fruit salad.

You will need a tin of peaches, pears, melons, clementines, pineapples or anything else. Remember, tomatoes are fruit too...

2. Open your first tin and add pour its contents into the bowl. Remove and drink any fruit juice or sugary syrup.

3. Repeat step 2 until you have all the fruits you need in the serving bowl.

1. Get a large serving bowl.

Packing suggestion: you should add tinned fruit to your disaster box on page 75 and could add it to your backpack on page 167 too.



Don't eat anything that smells dodgy, looks manky or has passed an 'eat by' date. In the UK you can eat food that's passed its BBE (best before date).

Build a salad city

Use these ingredients to make a salad city. You could:

- ~ thread celery strings through tomatoes to make cable cars;
- ~ shave carrots to make roads;
- ~ landscape parks with lettuce leaves.



Serving suggestion: demolish with friends then gentrify with a posh fruit pudding.

TI MEF084

Ketchup mash-up

Can you beat the brands by creating a superior sauce? Try this basic recipe or develop your own top secret blend of herbs and spices.

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800g tomato puree

60ml cider vinegar

110g dark brown sugar

½ tsp dry mustard

½ tsp salt

½ tsp garlic powder

½ tsp cumin

½ tsp smoked paprika

2. Bring to a boil, whisking occasionally, and cook for 10-15 minutes, until thickened to desired consistency.

3. Let cool before serving.

Store in the fridge.



Bake your own bread



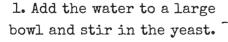
Humans have been baking bread for at least 30,000 years and there are countless variations of this magical mixture of flour and water found all around the world. Become part of this everevolving food culture by baking a loaf of real bread from scratch.

This recipe is a European yeast leavened bread, meaning it uses teeny tiny microorganisms to make the bread fluffy. After waking these beasties up and giving them something to eat, you stir them into ingredients, let them do their work, then bake.

There are many different recipes you can try, but here's a simple one to get you started. Good luck!

Wake up your beasties

375ml warm water (hot tap hot) 1 tsp easy-blend yeast 275g strong white flour



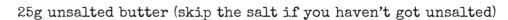


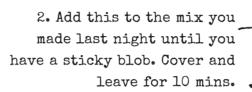
2. Stir in the flour, cover with a tea towel and wait until the next morning.

Stir them in

1 tsp salt

300g strong white flour





1. Mix the salt and flour in a bowl, then rub in butter until it vanishes.

4. Leave covered in the bowl for another half hour. Rub butter all over the inside of a loaf tin or similar ovenproof dish, then dust

3. Knead for 1 minute every 10 minutes for half an hour. Leave covered in the bowl between kneads. Rub your hands and worktop with cooking oil to prevent sticking.

5. Take the dough ball out of the bowl. Punch it flat, roll into a log and place in your ovenproof dish seam down.

Carry out the mission on page 75 whilst you wait for $l\frac{1}{2}$ hours.

with flour.

Bake a loaf

1. Turn the oven to 210°C/415°F/ gas mark 6½ 20 mins before you start to bake.

2. Put the loaf in the oven for 20 mins, then turn the oven down to 190°C/375°F/gas mark 5.

4. After 25 minutes, turn the oven off and tip the loaf onto a wire rack. Cool for 10 minutes.

5. Cut a slice off and munch with butter.

MEF086

Whizz up frozen fruit smoothies

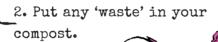


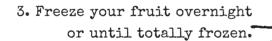
Refresh yourself between explorations with this frozen fruit treat. how many can you label?

Fruit Extras: Cinnamon Cocoa Frozen yoghurt



1. Prepare the fruit that you would like in your smoothie, removing any stones, skins, seeds and any other unwanted bits and pieces.





4. Use a blender to whizz up your frozen fruit. You can add spices, cocoa, frozen yoghurt and other lovely things too.



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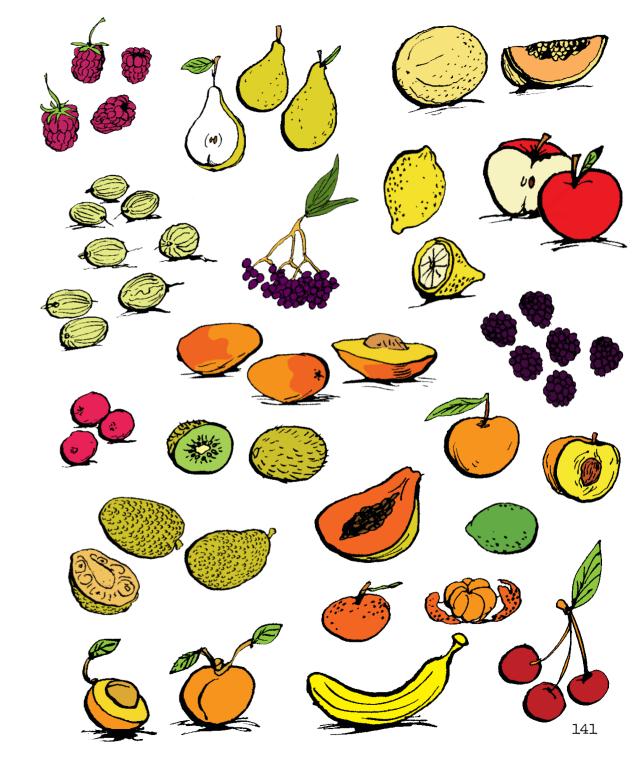












11 MEF087

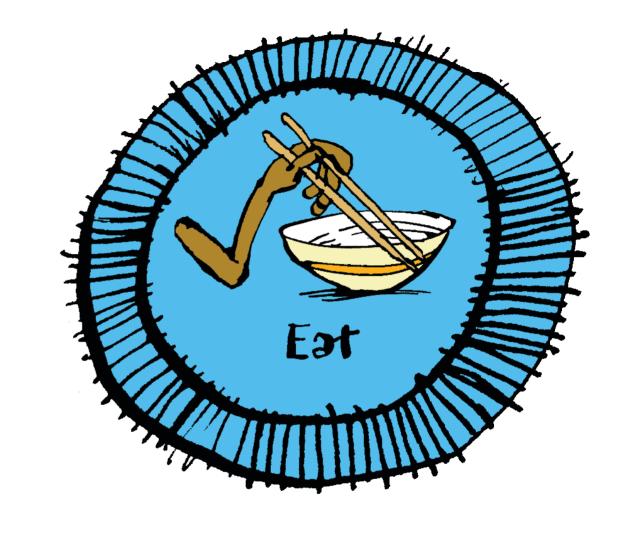
Draw a cooking tree

Create a family tree and collect a recipe from each person in it. You may even be able to get recipes that were used by people who have now died if you ask the right people the right questions.

Draw your tree here.

















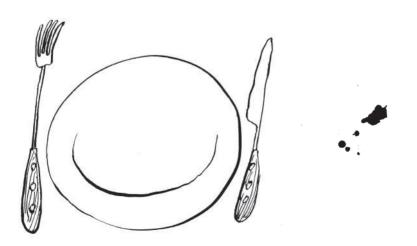
Eat

After growing, harvesting and cooking your food, it's time to eat it.

Eating is something that many of us on Earth are fortunate enough to do on a daily basis, sometimes more than once. Some people even eat when they aren't hungry.

There is more than enough food in the world for everyone to eat, but it's not shared fairly. At the same time as some people die because they've not had enough to eat, others are dying because they've had too much to eat. Food is not shared fairly for lots of reasons, but usually it comes down to where you live and how much money you have.

Sharing is important. In groups of any size, from 2 to 7 million, sharing food fairly will mean more energy, strength and happiness. When exploring, sharing what you're eating will help to keep your team strong.



How to eat

There are lots of different ways to eat.

Many parents in the world chew, swallow and store meals before puking them into the mouths of their children. Birds, wolves and other creatures do this for their young all the time, but it's far less common to see human parents doing this.



If you don't fancy someone spewing a half-digested meal into your mouth, there are lots of other ways to get grub into your gut. Historically people would just use their hands, perhaps keeping their right hand for eating and the left for cleaning their bottoms. Utensils are more recent inventions and are a great way to cut and transport bite-sized pieces of food. If you've not already done so, try using a knife, spoon, fork, spork, skewer or pair of chopsticks.

Eating is not always easy though. We don't feel like eating if we're ill or full and if we don't like the taste of something, it can be hard to down a dish. Some people have illnesses which mean they can't eat certain foods or find it difficult to eat anything at all.

Eat then excrete

Unless you're trying to give a deadly bite to a spider that's trying to give a deadly bite to you, it's usually easy to eat food. The trick is to separate nutritious molecules and minerals from ones that do nothing for you. Luckily your body is highly skilled at sorting the stuff that helps to keep you alive from the stuff that needs to be excreted into a loo.



Picking foods that are high in nutritious molecules and low in the ones that do little or nothing for you is a a massive step toward your belly being more healthy.

Draw a map of yourself in this box to show how your meal enters, is transported and distributed around, then exits your body.

What to eat

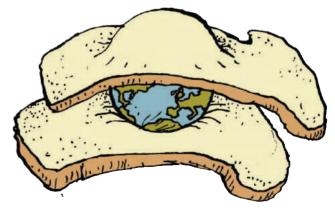
Before eating always consider these things.

Your taste: you taste things not just with your tongue, but also your other senses. When biting into your food think about how it smells. sounds and feels too.

Your body: you can change your body by putting different foods into it. Eat the right amount of good food and you'll be stronger, faster, fitter and brainier. Visit page 264 to find out how much of different things you should be absorbing into your body.

Your effect: every single thing you eat has an effect on someone, something and somewhere else in the world. Is your effect more positive than negative?

And remember, you are food too. From crocodiles to mosquitos there are millions of animals that would like to have a piece of you. As you read this there are microscopic animals nibbling you. We would like to thank you on their behalf for being so generous.



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149

Live below the line

Spend 5 days living on a budget of just £1 a day.

Plan your meals here.

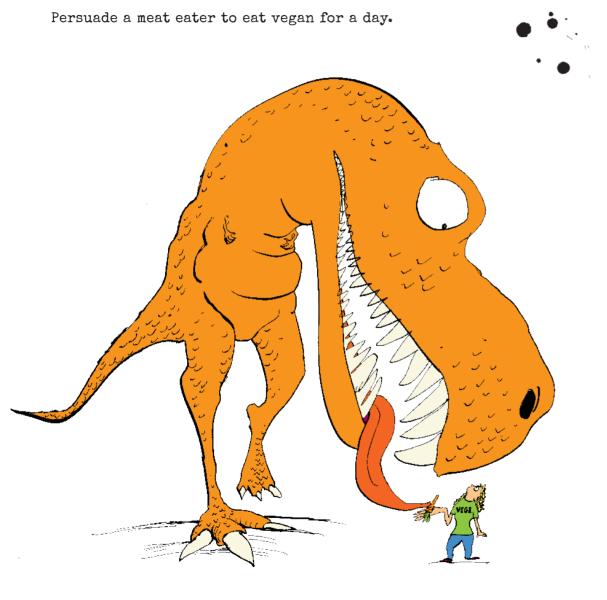




1.4 billion people live in extreme poverty, surviving on the equivalent of less than £1 each day. To find out more and support the Living Below the Line poverty campaign turn to page 258. Eat dinner using all these different utensils.

MEFO91

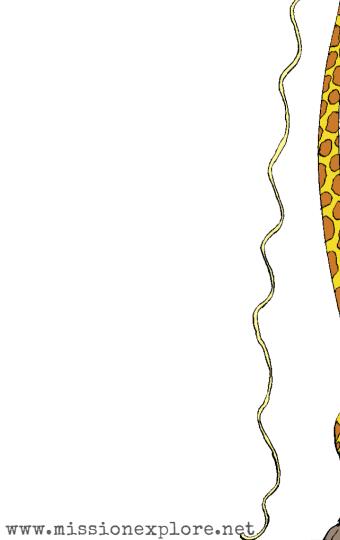
Suggest some salad



11 MEF092

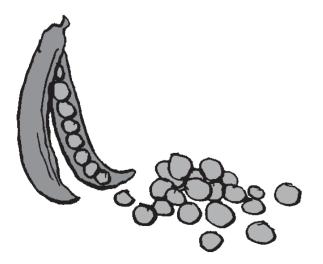
Eat your height in spaghetti

Measure and record all the spaghetti you eat. What have you eaten the height of? Draw it to scale below.



Spread peas

Share a packet of peas with as many people as possible. List who they went to below.





Eat your words

Ask someone to eat their own words (on sugar paper).



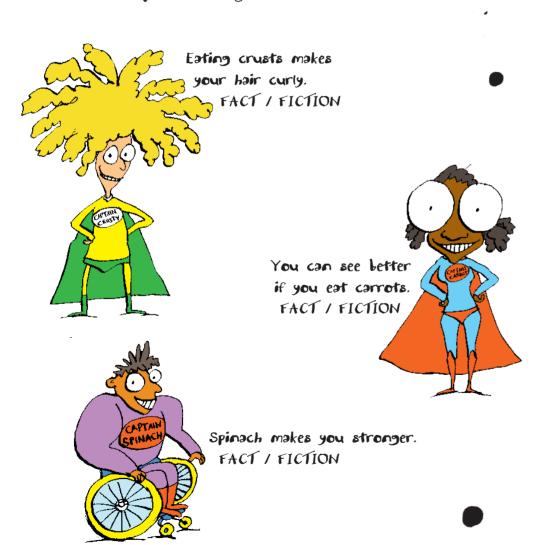


Use icing or special edible inks to spell out your words. Normal inks can make you sick.

MEF095

Myth bust

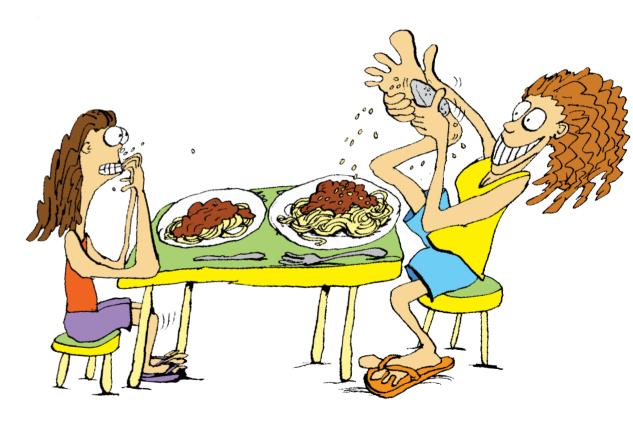
Conduct experiments to find out if these food sayings are fact or fiction. Record your findings below.



MEF096
Go cannibal



Convince someone you love to go cannibal and eat part of themself.





Don't be greedy and eat too much! Avoid anything vital like your eyes or brain.

MEF097 Gobble, nosh and chow down

Eat in all these different ways. Which is best?

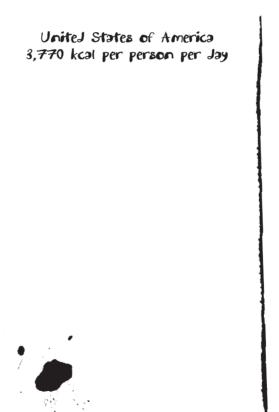
masticate	stack e	guz	zle	cons	ume
devo	our	pig out		polish o	off
inhale	feast		nosh	breakfast	lunch
scarf down		snack		DI GARIAD V	demolish
	put awa	ı y	scoff		dine
nibble	bite	chow	down	chomp	
eat				sip	gobble
banquet	tuck i	nto	feed		trough
			ingest	munch	
graze	quaf	f chew		feast	ruminate
wolf down				g	orge
			belch		
	slurp				swallow
	onnomnom				
158					

MEF098

Compare global calories

Our bodies need energy to think and move properly. The amount of energy that's in food can be measured in calories and these are often listed on food that you buy. People from some countries eat, on average, far more calories than people from others.

Use this page to draw the amount of food eaten by people in a day from these two different countries.



Eritrea 1,590 kcal per person per Jay

Get as far as you can on a banana

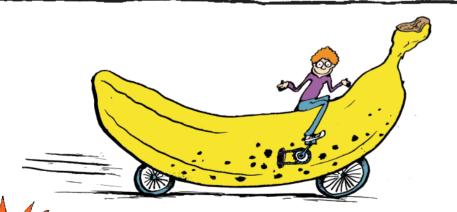


How much energy does a banana give you? Go for a walk after eating no bananas, one banana, then two bananas for three breakfasts. How far can you get before you feel hungry and your energy levels sink?

This is not a very precise experiment, but make it more accurate by trying to eat the same amount of food and taking the same amount of exercise each day.

no breakfast one banana

two bananas



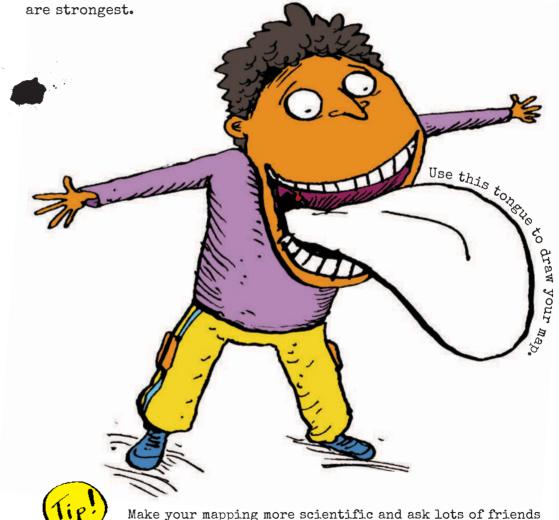
Eat when you get hungry or you'll fall over.

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11 MEF100

Map your taste

Explore your tongue with sweet, sour, bitter, salty and umami (savoury) tastes. Try to create a map of where the different tastes



to do this experiment. Do your taste buds agree?

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Eat international

Eat a dish cooked by someone from each of these places and write in what you ate. Are they typical national dishes?

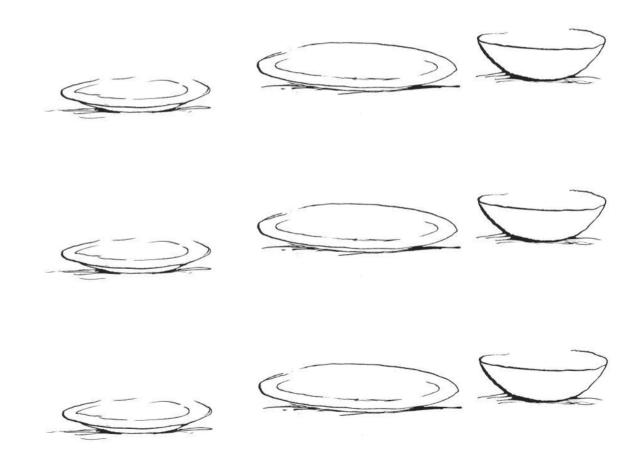
Origin of person	Name of dish	Origin of dish
France		
Mauritius		(
Ethiopia		•
Japan		
Mexico		
Greece		
Iran		
Jamaica		
Vietnam		
• Poland		
Wales		
Bangladesh		
Russia		

11 MEF102

Eat opposite

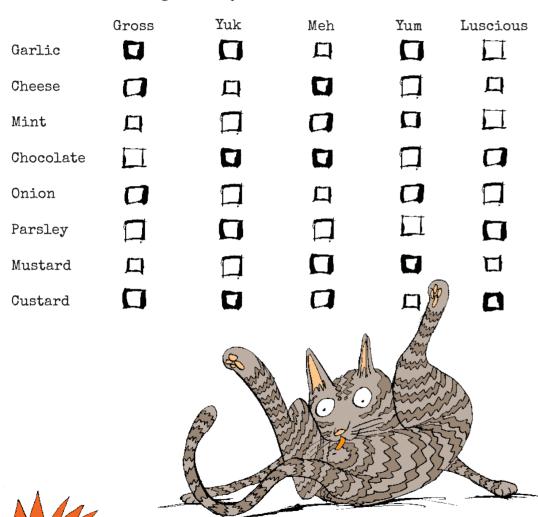


Reverse eat for a day: eat dinner before lunch before breakfast and pudding before main course before starter. Sketch in your upside down, wrong way round, inside out meals below.



Fragrant or foul?

Which of these things makes your breath smell the best/worst?



You are not a cat. Licking dirty bums will make you sick.

11 MEF104

Feed the neighbours

Feed members of your community and ask one of your clients to write a review here.





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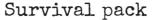
Have a disgusting month

Train yourself to eat things that you don't like. Pick three things that you currently don't like and come up with a plan to turn your bad senses good.

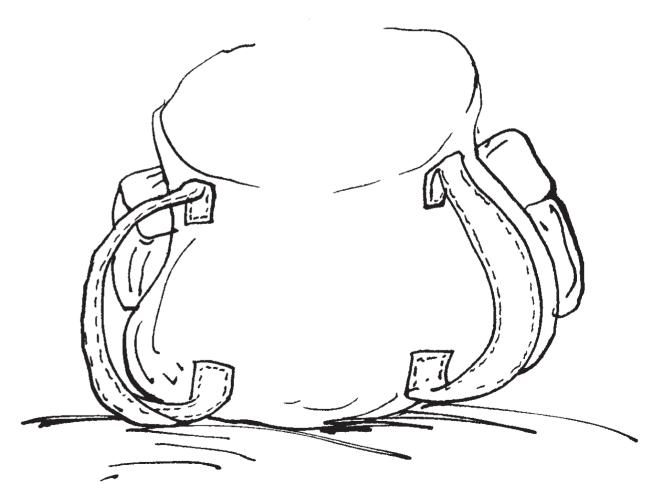
Keep a record of your efforts here.

	FooJ 1	FooJ 2	FooJ 3
Week one			
Week two			
Week three			
Week four			

TI MEF106



Imagine a disaster has struck and you are forced to flee to another country as a refugee. Fill this bag with food for your survival.



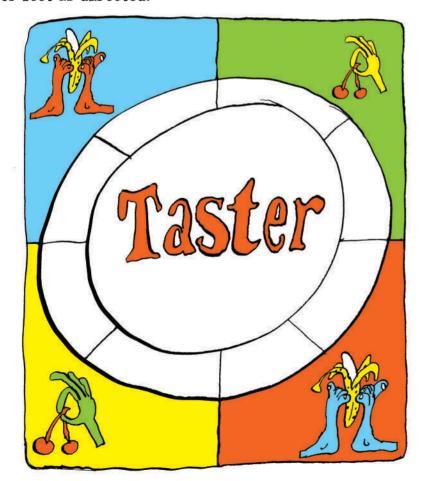
www.missionexplore.net

Play taster!



Here's how to play a game of taster. You'll need a bunch of delicious and disgusting foods to nibble.

- 1. Fill the empty segments with different tastes.
- 2. Someone spins a homemade spinner in the middle of the board.
- 3. When the spinner stops, taste whatever it's pointing at with your hands or feet as directed.



MEF108 Sing for your supper

Compose a salad by asking for one free leaf or ingredient from lots of different shops in exchange for a dance, a poem, a song or a thank you letter. Make a note of your generous donors and the performances you gave below.





Experiment with diets

Try these different diets. Which do you think is best?



Vegetarian

- ~ No meat
- ~ No animal ingredients including gelatin

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Ital

- ~ Only eat natural, unprocessed food
- ~ Avoid meat and don't eat pork
- ~ Avoid fish over 12 inches in length

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Fruitarian

~ Only fruit, nuts and seeds that have fallen naturally from a plant without killing or harming it

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Pescatarianism

~ No meat, but seafood is allowed

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Halal

~ Only eat food that is allowed under Islamic Law. Most animals other than fish must be slaughtered using a method called Dhabihah ~ No eating of pork, blood or found animals

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Vegan

~ No meat, fish or animal products, including eggs, milk and honey Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Kashrut

- ~ Only eat kosher food that is allowed by the laws of Halakha
- ~ No carnivorous mammals
- ~ No mammals that either don't chew the cud or have cloven hooves
- ~ No birds of prey, reptiles or water animals without fins and scales

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Kangatarianism

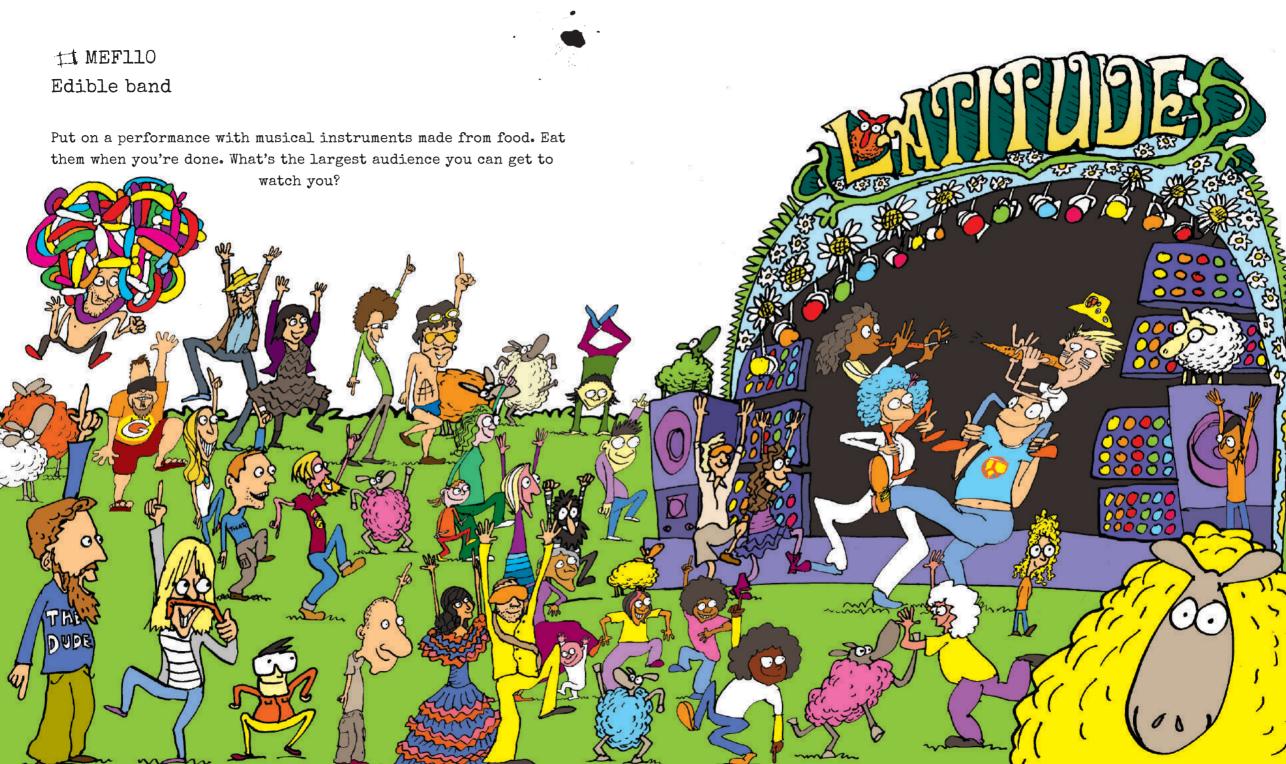
~ No meat, except kangaroo

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10

Raw foodism

~ No cooked or processed food

Friendly? /10 Delicious? /10 Nutritious? /10 Easy? /10



Senseless snacking

Experiment with a friend. Ask them to eat these different things while blocking one or more of their senses. Can they guess what they really are?

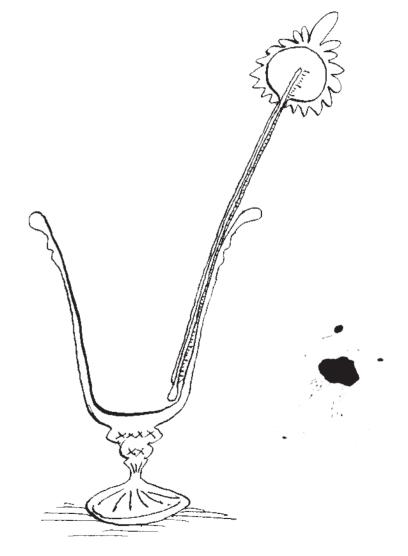
- Teat a raisin when told it's a scab
- ☐ Bite an apple while smelling an onion
- Suck a lychee when told it's an eyeball
- ☐ Slurp some snot-coloured jelly through a straw
- ☐ Nibble bits of cold rice when told they are maggots



TI MEF112

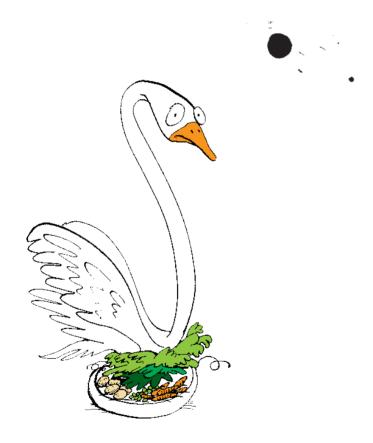
Vary the temperature

Eat the same food at different degrees. Which is best? Fill this glass with your multi-temperature eating experiment.



Set a posh place setting...

...for the Queen of the Commonwealth Realms. Draw in all the knives, forks, spoons, glasses and anything else she will need to dine appropriately.





Queen Elizabeth II owns all wild British swans so don't cook one without her written permission. You can write to her at: Her Majesty The Queen, Buckingham Palace, London, SWIA 1AA, The United Kingdom.

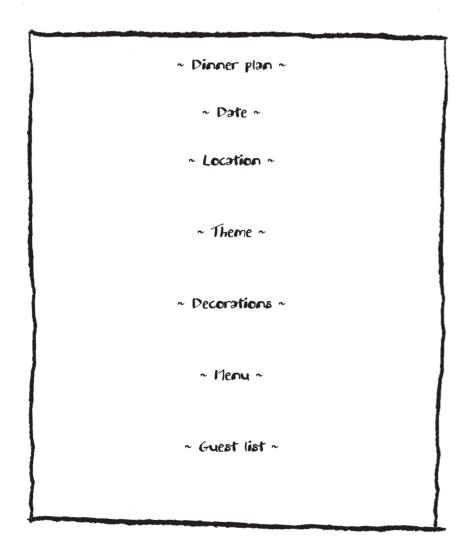
Extreme dining

Imagine the most extreme place for an extremely extreme dinner party. Draw these people into it.



Hold an picnic

Plan the most bizarrely impressive picnic you possibly can.



TI MEF116

Around the world in 80 cheeses

Taste 80 cheeses from 80 different parts of the world. Keep a note of your favourite cheeses and where they are from below.

















Waste

Waste includes all the food we don't eat and all the packaging we don't reuse. As geographers we think 'waste' is often a rubbish word because 'waste' can be so useful to people.

Between growing, harvesting, shopping, cooking and eating there are lots of opportunities for food to end up somewhere other than stomachs. Each year about 1.3 billion tons of food is lost or wasted. That's about 1/3 or 33% of all food produced. You can also think of it as 1 in every 3 apples, pears, carrots, fish and peas not being gobbled up as the farmer intended.

Wasters

Food waste is all the edible stuff bought by shops and shoppers that ends up getting chucked out. Shops don't know how much food people are going to buy on any single day; they have to predict the future and guess how much food to have in stock. Too little food and they'll make less money. Too much food and it ends up wasted. They can't sell old food either because it can become unsafe, rot and carry diseases that could kill you or make you puke on your shoes.

The amount of food waste humans make could be reduced if shops and shoppers only bought what they needed and were less prejudiced against food that looks a little 'different'.



Landfillers

If you just throw food waste in your normal bin it will probably end up in a hole in the ground, also known as a landfill. Landfills are massive piles of rubbish that attract rats and other disease-carrying creatures. When the food waste rots in a landfill it can create methane which has a big effect on climate change. If you're interested, you can probably book a tour at your local landfill site. Just give them a call and ask.

Reduce, reuse, recycle and upcycle

Packaging is used to protect and advertise many different foods. Some unprotected foods damage easily and would go to waste without something to defend them against bumps and bruises. Other foods could have far less packaging than they do.

It's good to avoid buying heavily packaged foods. When you do buy packaging, reuse, recycle or upcycle as much of it as you can into new and beautiful things. Turn to page 27 or page 189 for ideas.

Waste water

Either at home or when exploring in the wild you should try and use as little water as possible. This will save money, resources and help to reduce negative impacts on the environment. Always use environmentally friendly washing-up liquid.

Losers

Food loss sounds very careless, but it's all those bits of plants and animals that humans don't tend to eat: stuff like husks, stalks, bones and hooves. Farmers can use this 'loss' to make other things including fuel and animal feed. When growing your own food you can use plant loss to help you grow more plants (see Composters).

Food is often lost because of things that we can't control very easily. Too much rain, too little rain, too much heat, too little heat, too much acid in the soil, snails, crickets, moles and many other things can all make you 'lose' a crop.

Composters

Got any leftovers? Piling them into a compost bin can turn waste into free food for your soil. Not only that, but when your green waste is composted at home it doesn't go to a landfill and give off methane gases that contribute to climate change. Turn to page 204 to learn how.

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Poo

When you flush wee and poo out of a loo it doesn't just vanish. In many parts of the world poo and wee waste flows into streams, rivers and the sea. In large quantities this can have disastrous effects. In rich parts of the world it will usually make its way down sewers to sewage works where it's sieved, filtered, skimmed, processed by bacteria, stirred, aired, flowed, dried and composted before being sprayed over farmland to make soils more fertile.

Wild pooing

When exploring you might need a poo when there is no loo in sight. Here are some good tips for going to the loo outdoors.

- 1. Wear clothes that you can easily open.
- 2. Find a private place. Ask a friend to watch for other people.
- 3. If you can, poo into some tissue and then put your it into a tied bag or small box. When you get to a loo you can put your poo into it and flush it away. Now wash your hands.
- 4. If you can't take your poo away with you, dig a hole 20cm into the ground and poo into that. Find a place with soil and plants to help it decompose. You can wipe your bum with leaves, but don't pick anything poisonous. Take loo roll away in a bag to flush away later.



Use everything, waste nothing

Use, reuse, recycle, upcycle and compost everything.



TI MEF118

Turn a poo into a pumpkin

Plant a pumpkin seed in some poo, or some droppings mixed with soil. Draw your pumpkin seedling into the poo splat below.





Only plant your pumpkin in poo that comes from a herbivore, like cows, rabbits or guinea pigs. Don't touch poo with your bare hands - it is full of manky stuff and will make you sick. Carnivore poo can make you very ill.

Wash up in the rain

Be a human dishwasher next time it rains.





Don't use washing-up liquid that will poison the soil and make sure you have a suitable drain for your waste sludge! This mission works best when you've had a salad or sandwiches and don't have lots of sloppy animal products to deal with. Not to be attempted around lightening!

Dance the robot

Make a giant robot out of recycled stuff then go somewhere public and show off your dance moves.

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Design your robot here.





Where has your bum been?

Mark all the places on this map where you've deposited a poo.





No map is 100% accurate. Can you spot anything missing or wrong with this one?



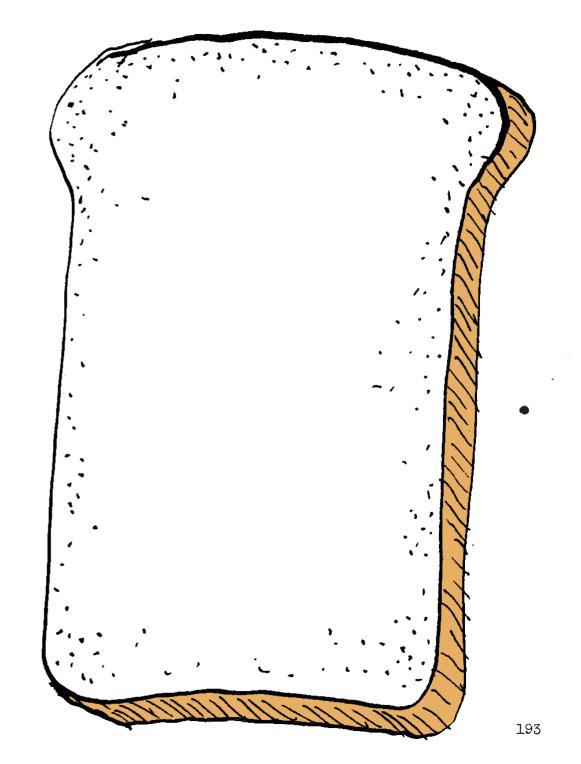
MEF122 Mould mapping

Leave a piece of bread on the windowsill and draw the mould pattern that develops over the week.



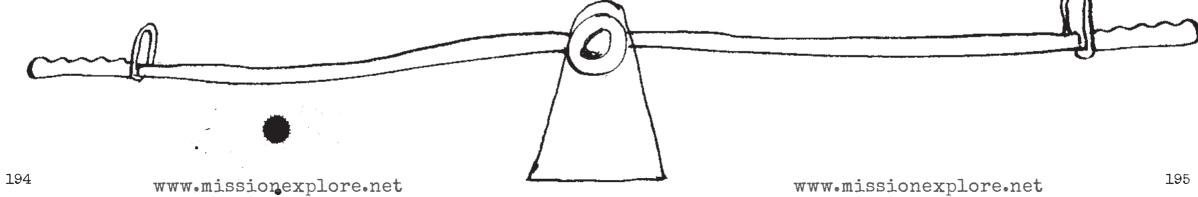


Don't touch or eat mould.



Rubbish human

Weigh all your waste for a day (you'll have to estimate your poo and wee). How long does it take to weigh the same as you? Draw yourself and your pile of waste.



Ditch your packaging

Encourage supermarkets to use less packaging by asking to leave all the bits you don't need at the till before taking your food home.

Keep a diary of how people respond to your actions here.





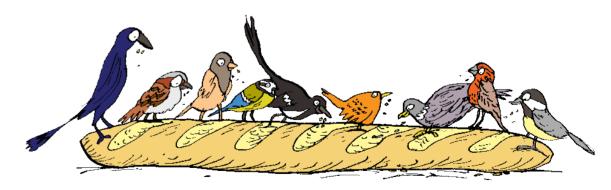
Some supermarkets encourage customers to do this so they can understand how to reduce their packaging costs.

Crumb banquet for birds

Persuade a baker to give you some left-over bread and organise a banquet for some birds.

Draw and label the birds that eat from your bird table here.







White bread is too low in nutrients for birds. Give them seeded and wholemeal bread to keep them healthy.

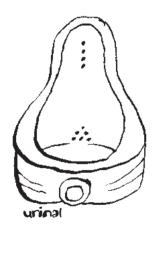
MEF126

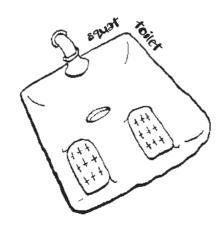
Explore the world of loos

Draw someone using each of these different toilets.

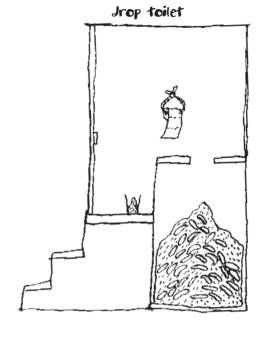
















Eat leftovers

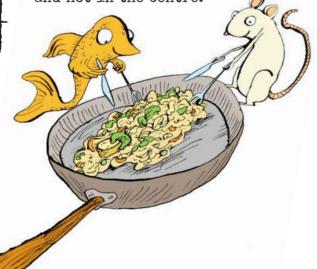
Make something out of your leftovers. Here's a recipe for bubble and squeak, a delicious leftovers dish.

25g butter
1 onion, finely chopped
400g leftover mashed potato
200g cooked cabbage or greens,
sliced or shredded

Any other cooked leftover vegetables like carrots, peas, mushrooms or sweetcorn Salt and black pepper

- 1. Melt the butter in a large frying pan and add the chopped onion.
- 3. Stir everything together and make into individual patties.
 - 5. Serve with tomato sauce and a fried egg for a delicious lunch or dinner.

- 2. Fry gently until soft, then add to a bowl with the other ingredients.
- 4. Fry these patties for 4-5 minutes on each side or until brown on the edges and hot in the centre.



MEF128 Make a chocolate poo

Eat it in public.





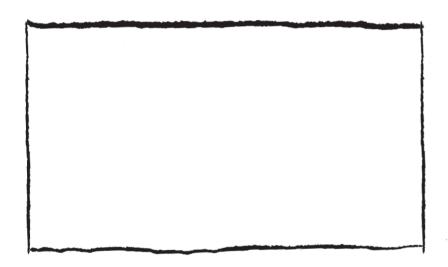
Try melting down some chocolate and adding some nuts and sweet corn. Shape it into a poo before eating fresh.

Poo protest

Chalk white police investigation lines around dog poos you find on the street to:

- ~ stop people from walking in them,
- ~ and protest against disgusting poo litter.

Stick a picture of your actions here.





Never touch dog poo. It can make you very sick and if it goes in your eyes you can go blind!

Ignore best before

Cook a dinner for a group of friends entirely from food that's gone past its 'best before' date.

Write your recipe here.







Many foods around the world have a 'best-before' date. Food eaten after this date will not normally poison you, but it may not be at it's 'best'. This is very different from a 'use-by' date which acts as a warning. Eat food past it's use-by date and your life could come to a very pukey end.

Cook your soil a meal

Composting decomposes unwanted waste, turning it into food for your soil. Feed your soil well, it will feed your plants well and they will then feed you well. Here's how to cook your soil a meal.

The pot

This is your compost bin. It could be a homemade fenced area in your garden, but it's best to use a Darlek-shaped bin that has no gaps and a lid to cover it. The easier it is to get to the more likely you'll keep filling it up.

The stove

Put your compost bin on bare soil and in the sun if you can. The

heat will help your ingredients to 'cook', decompose and mix more quickly.

The ingredients

You can compost anything that used to be alive. Unless you're an expert with special kit it's a good idea to avoid animal or dairy products and food that's been cooked. This can go into a food bin if you have one.

Good ingredients from your kitchen to pour into the top of your compost include:

- ~ leftover fruit
- ~ leftover vegetables
- ~ washed seaweed
- ~ tea bags and coffee grounds
- ~ toenail clippings and hair
- ~ clean, crushed egg shells

You can also add leaves, clippings from plants, sawdust and cardboard.



- 1. Tip your ingredients onto your compost heap as they become available.
- 3. Keep adding your waste ingredients. Mix and mash them up before putting them in to help speed things up.
- 5. Remove any unwanted big bits then spread on your growing beds.

- 2. Add some (tiger) worms to help speed things up.
- 4. Repeat until until dark brown soil-like stuff appears at the bottom of the compost. This could take up to a year depending on your ingredients, worms and how hot it is.



Tortimo

Strength

Best overall

Toilet roll test



110

/10

/80

Test-drive a variety of toilet papers on your bottom and rate them using the critera below.

rate them using the critera	below.		10.11
	Type 1	Type 2	Type 3
Number of squares required	/10	/10	/10
Absorbency	/10	/10	/10

rex rai e	/10	/10	/10
Ethics	/10	/10	/10
Price	/10	/10	/10
Beauty	/10	/10	/10
Fragrance	/10	/10	/10

110

110

/10

/80



/10

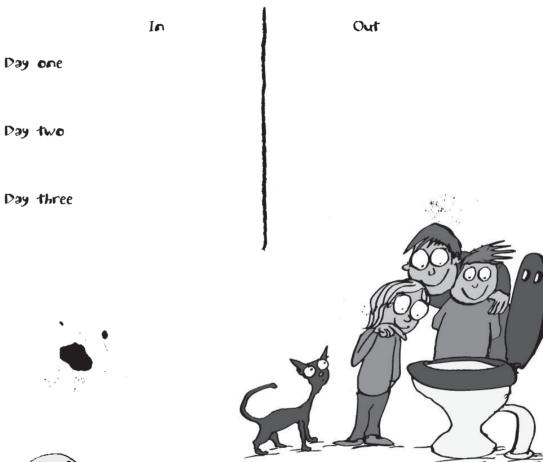
/80

You need to do poos that are the same size and consistency to make this a fair experiment. Good luck with that!



Keep a poo diary

Keep a record of what you eat, drink and poo. How does what goes in change what comes out? Draw your ins and outs below.





Experiment by chowing down on beetroot, edible glitter, sweet corn, liquorice, spinach and asparagus.

Be a hero

Save the life of an animal by going litter picking. Keep a record of what you recycle here.





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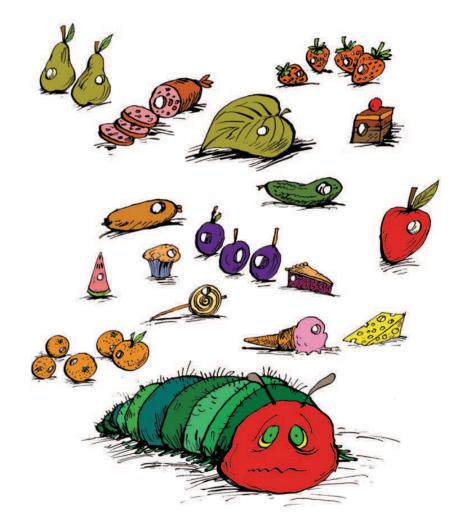
Did you know that animals can be trapped in litter? Put on some thick gloves and become a hero by collecting and recycling litter.

11 MEF135

Run a rotten race

Time how long it takes for different waste to waste away.

Photograph it from the same position every day to create a timelapse animation.

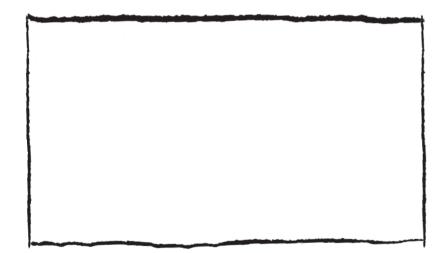


Discover gum constellations

Find a path that's covered in spots of old gum. Use chalk to mark any constellations that you can find.

People have long used star constellations to navigate from one place to another. Make a map of your gum constellations and be one of the few people in the world who can navigate and share routes by spotting distinctive gum patterns.

Add photographs of your chalked constellations and mapping here.





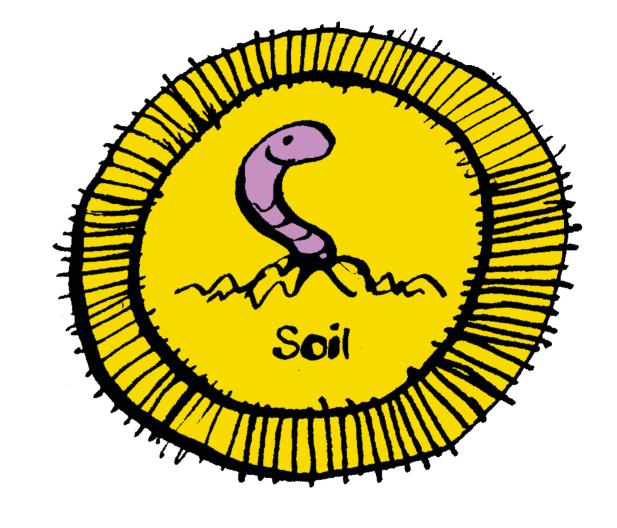
Marking gum with chalk is a great way to stop people stepping in it and to protest against those who litter streets (see page 202). Don't touch old gum.

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Don't waste yourself

What would you like to happen after you die? Answer these questions to record your wishes.

- 1. What should happen to your body?
- Buried in a wooden coffin
- ☐ Buried in a cardboard coffin with a tree planted on top
- T Cremated
- T Frozen
- Left out for wild animals
- Burned on a pyre
- 2. Would you like to be an organ donor?
 - T Yes
 - I No
 - Yes, but only these parts:
- 3. Where should the ceremony or celebration be?
- 4. Who would you like to be there?
- 5. What words would you like said?
- 6. What music or songs would you like to be played?











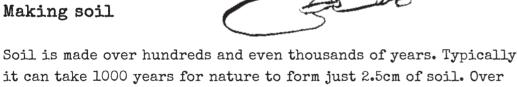




Our planet is essentially a big rock spinning around in space. A relatively small amount of our planet has been crushed into a thin layer of soil that the entire human race is dependent on for survival.

For centuries explorers have travelled the world to discover and research soils. Their main quest has been to understand how to best use soils to grow food and feed people. To this day these explorers continue to conduct challenging experiments and complete soilbased missions. They've checked for creatures, tested for acids, observed salts, collected colours, filtered chemicals, smelt gases and felt textures. As a result of this important research we now know how to have the best mud fights, baths and slides. We also have a better idea of how to look after and make the most of soil.

Making soil



it can take 1000 years for nature to form just 2.5cm of soil. Over this time rocks are broken down by wind, rain, ice, heat, gravity, plants, animals and the occasional asteroid strike. These small pieces of solid rock are then jumbled up with dead and alive plants and animals, liquid water and gases, like oxygen, carbon dioxide and water. Together, this is soil. Soil is not the same everywhere in the world and in some places people are forced to farm poor soils. Poor soil is low in nutrients so it's hard for people to grow food to feed themselves.

Care for soil



There are lots of ways that soil can be damaged. Damaged soil can take years to heal and during that time it may be hard or even impossible to grow plants in it. Here are some ways to help keep your soil happy.

- ~ Give your soil a rest once in a while. Change the type of plant you put in it so that can recharge and fight off diseases.
- ~ Don't use fake fertilisers: add organic stuff from your compost instead. You could even grow clover or beans that take vital nitrogen from the air and put it into the soil.
- ~ Don't use harsh chemicals to kill weeds or pests. See page 32 for an alternative way to keep your crops safe.
- ~ Stop your lovely soil from washing or blowing away by using mulches or planting ground cover instead of leaving it open to the elements.
- ~ Hedgerows make good windbreaks and provide vital places for birds and beasties to live - they will help control your pest population too!

Feeding soil

Whether you have poor soil or good soil that could do with a turbo boost there are things you can do to help it do its job better. Give your soil a meal (see page 228) and add compost (see page 204), organic fertilisers or herbivore poo (see page 187) to boost how many nutrients are available for your plants to soak up.



Conduct a soil operation

The more you understand about your soil the better you will be at growing food. If you gather together a spade, fork and soil tester kit you can conduct an operation to dissect soil and work out what it's like inside. Your findings can help you to decide which kinds of plants you should be planting.

You can check what kind of soil a plant likes by looking up instructions or asking another grower. These experiments will help you decide if you should plant the plant or not. Try them in different places to see different results.

Texture test

Is your soil made up of small bits of sand (1-2mm across), little particles of silt (0.05-0.002mm across) or miniscule ickle bits of clay that are smaller than 0.002 millimeters across? To find out. you don't need a ridiculously small ruler. Try and roll a bit of moist soil into a ball in your hand. If you can do this easily the soil is mostly on the clay end of the scale. If you can't roll a ball and the soil feels gritty, you've got sand in your hands.

The smaller the particles of rock the more water and nutrients it can hold, but the heavier it is to dig and the harder it is for plants to get their roots into. The bigger the particles of rock the quicker water drains away and the faster nutrients are washed away too. The ideal soil is usually a good mixture of small (clay) and big (sand) particles. Called loam, these soils hold nutrients, decaying plants and water well, but also let plants and worms push themselves through.

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Acid test

Some plants love to grow in acid soils, some prefer something neutral and others only grow in alkaline ground. To find out what kind of soil you have you'll need some special soil tester kit for this experiment. You can borrow or buy one from a local garden centre, gardener or school.

Your soil includes chemicals that make it acidic, alkaline or neutral. Follow the instructions on your soil testing kit by sticking a probe in the ground or shaking a soily test tube. You'll then get a result that reads between pHO and pH14. Any score below pH7 and you've an acid soil (lemon juice is pH2), anything above is alkaline (soapy water is pH12) and anything bang on pH7 is neutral (like distilled water).

Get dirty

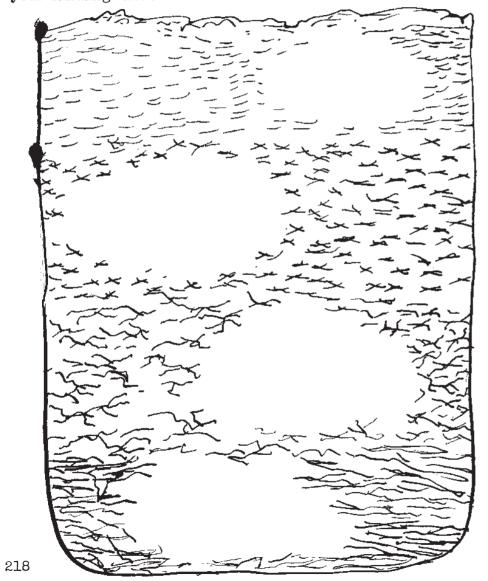
Most good explorers get filthy dirty once and a while. This is a good thing and you should not let anyone tell you otherwise (unless you'll get in trouble for being cheeky). Mud can be good for your skin, boost your immune system, feel good, make excellent camouflage and be awesome to slide down. Just don't get it in your eyes or mouth.



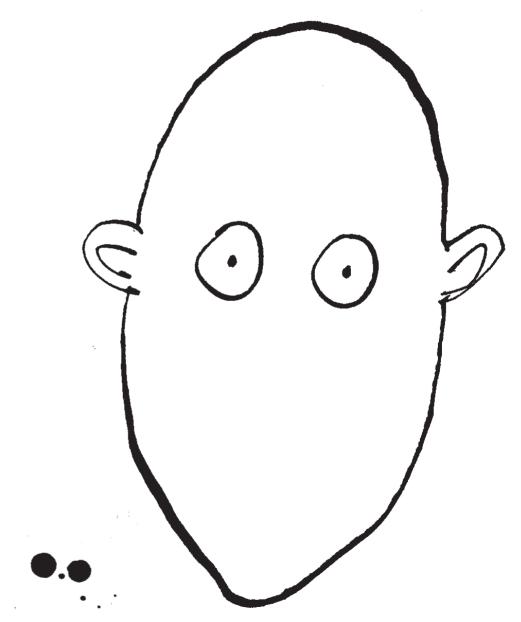
217

MEF138 Unearth a history

Research the history of the patch of ground under your feet. Draw your findings here.



MEF139 Make a mud mask



TI MEF140

Eat dirt

Serve a flower pot of dirt for your family.

l small new flower pot
Cookies (see page 105 for a great recipe)
Honeycomb
Chocolate beans
Gummy worms
Chocolate custard
Hard toffee



1. Wash a new flower pot very well. Add a layer of bedrock (hard toffee).



3. Mix in some pebbles (chocolate beans) and stones (honeycomb).



5. Stir in some mud (chocolate custard).

2. Break up the cookies into smaller pieces so that it looks soil like and tip them into your flower pot.

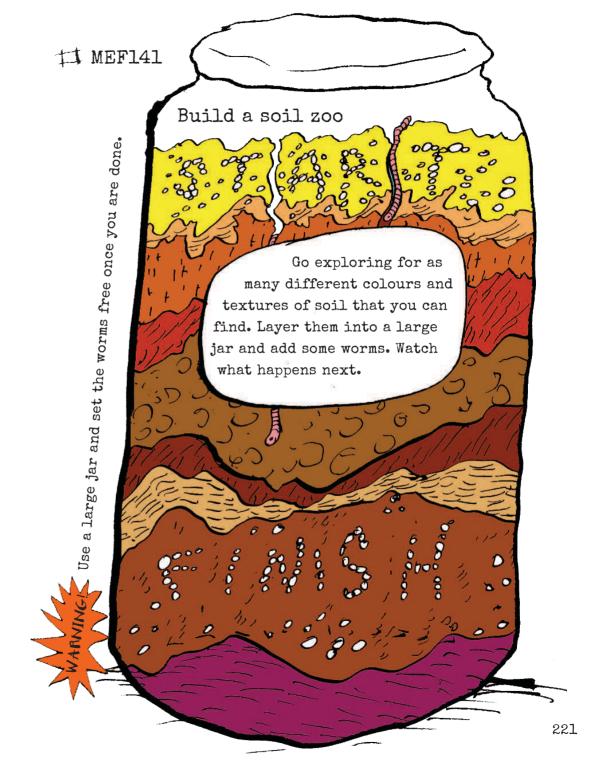


4. Set your (gummy) worms free in the pot.



6. Gobble.





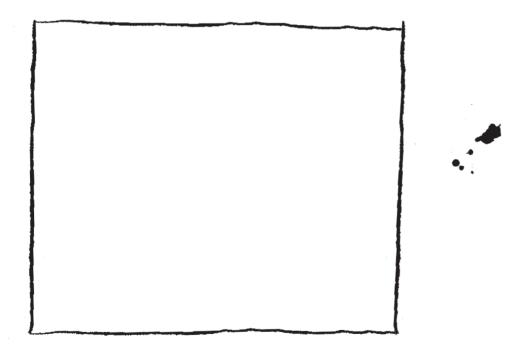
MEF142

Dirty art

Collect as many soil samples as you possibly can from different places, including gardens, garden centres, woods, fields or root vegetables in supermarkets.

Use your soil samples to create some dirty art.

Stick a picture of your work here.

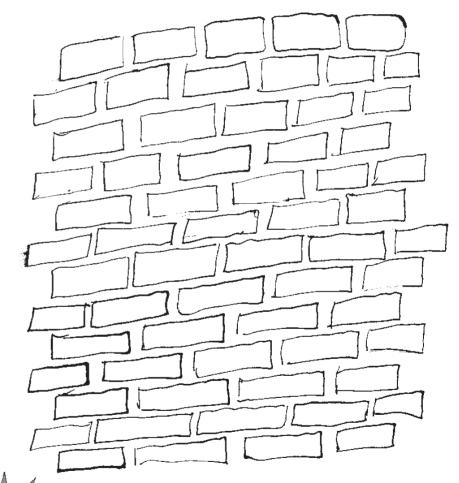




Dirt is soil that's thought to be in the wrong place.



Take clumps of mud and throw them against a wall. What's the perfect dirt-to-water ratio for a perfect splat?





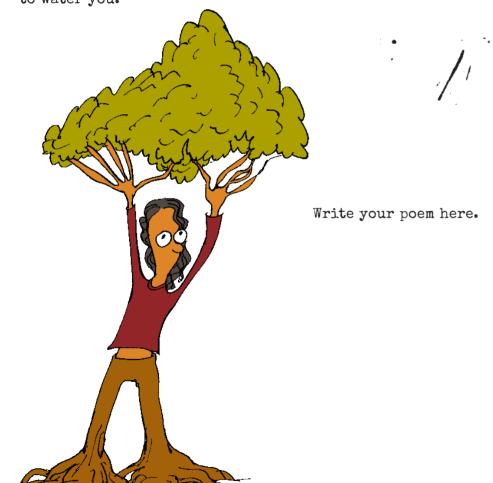
Get permission from the wall owner.

MEF144

Put down roots



Imagine what it must be like to be a plant. Attach strands of wool to your feet and bury them in soil. Write a haiku, limerick or other poem about being planted. To get the full effect, ask someone to water you.



MEF145
What is the point of lawns?



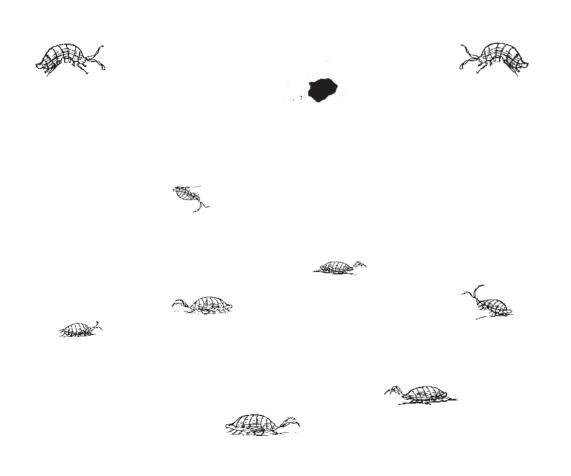
Tell a mole.

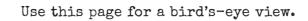


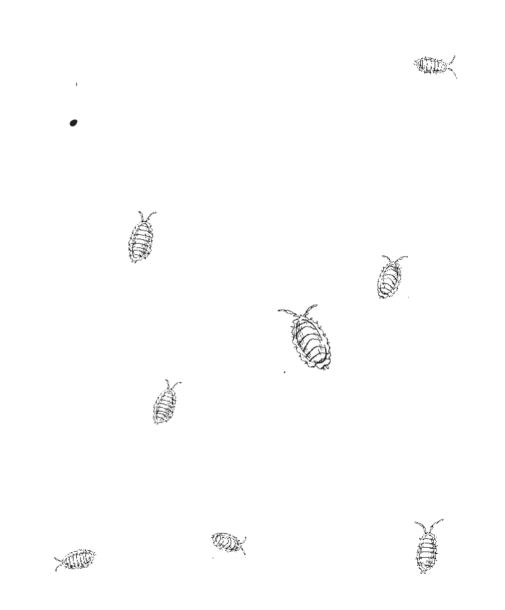
Build a soil castle

Design a soil castle for these woodlice. Remember to include some wet wood to keep the woodlice happy.

Use this page for a side profile.







MEF147 Get muddy, dirty and soil yourself

Identify muddy, dirty and soiled things. Show the differences on this picture.



MEF148
Bury a plant

Hold a funeral for a plant you find that is deceased, then return it to the soil it came from. Draw its gravestone and inscription here.

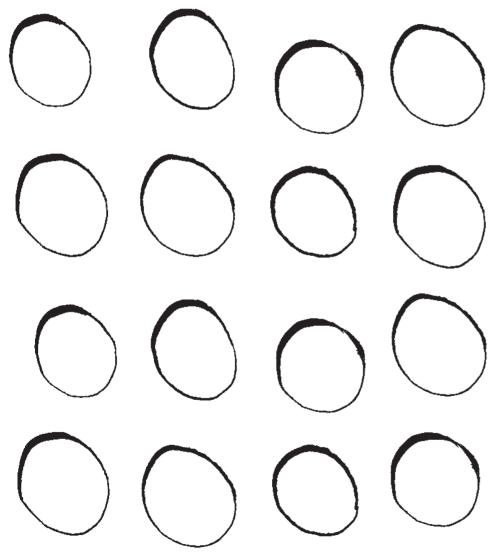


MEF149

Curate a soil collection



Make thumbprints of your favourite colours here.

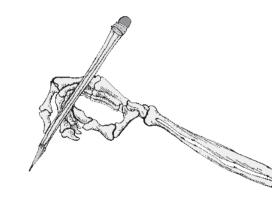


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MEF150

Make a decomposing body

Make a body from things that you find. Start with a stick skeleton and then add leaves and other stuff to make it look as real as possible. Draw it here then watch while it decomposes.

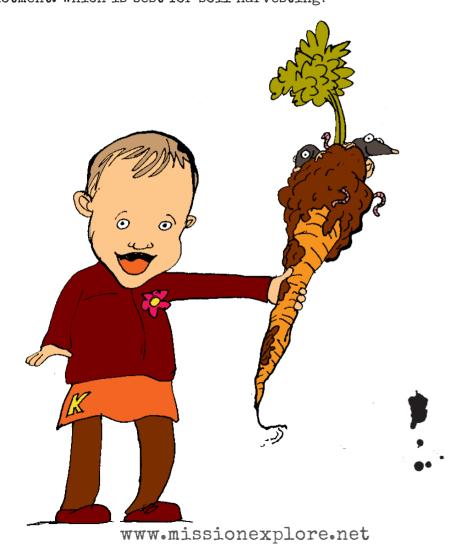




Put your body together in a sheltered place so that it doesn't just blow away!

MEF151 Harvest soil

Can you harvest enough free, fertile soil from your vegetables to grow a carrot? Try buying your vegetables from a grocer, a supermarket, a restaurant, a farmer's market, a corner shop and an allotment. Which is best for soil harvesting?



MEF152

Make an impression



Design a walking device that leaves behind misleading footprints.



TI MEF153

Colour carrots

Grow lots of carrots in as many ways as you possibly can, all at the same time. How many colours and shades can you make them grow?

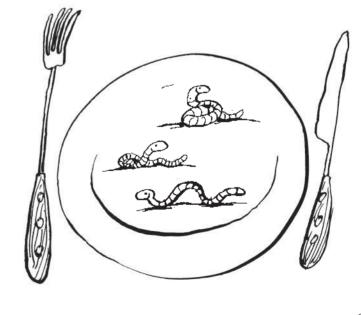
Experiment with these soil conditions and keep notes about the effects.

Less More Water Dark soil SanJ Acidity

MEF154 Soiling race

Make a soily dinner for worms. Which eat, digest and then soil their plates the fastest?

	Name	Length	Туре	Time
Worm 1				
Worm 2				
Worm 3				





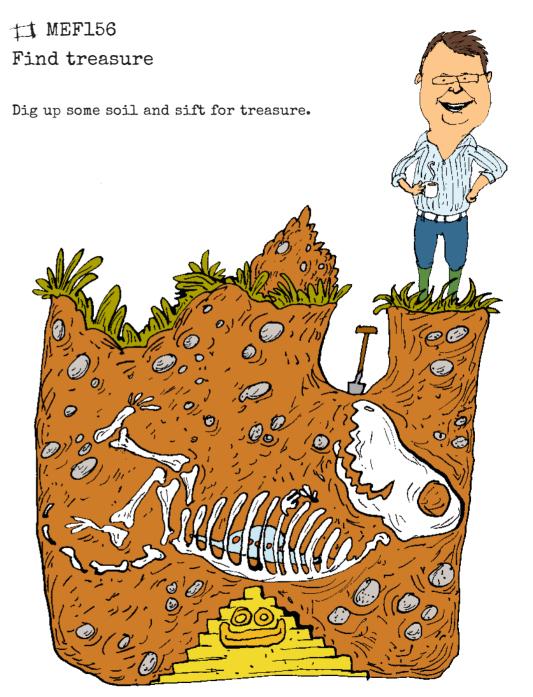
Temperature

Be a worm charmer

Who can persuade the most worms to surface?

Record your scores here.

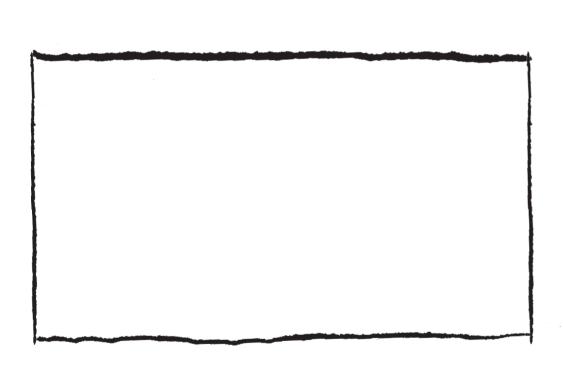




Root map

Follow a lateral root (one growing sideways, not down) leading out from a tree and see how far it goes by carefully digging around it.

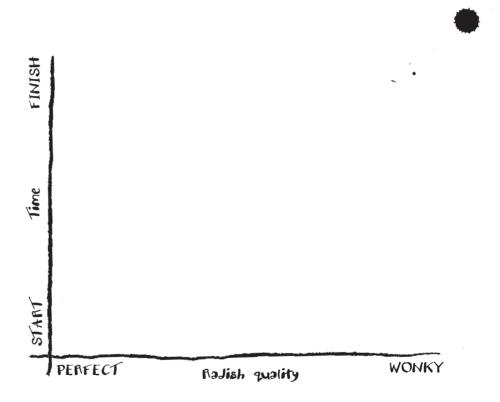
Draw a map of the root's pattern here.



MEF158

Drain your soil

Grow radishes in the same patch of soil over and over and over and over and over and over again. Don't add compost or mulch. Does your soil get tired? How does it change your radishes? Plot your observations below.





Make mud cakes



Mud cupcakes

pebbles egg shells petals cardboard leaves paper

coffee grounds

peelings

These cup cakes can be beautiful. The best thing about them is that they can be fed to your compost and any worms inside it. You could even try selling them to local gardeners.

sand

1. Make cupcake cases from some old paper.

2. Put together a mud-mix with coffee grounds, leaves or old tea bags and mix well.

Cupcake cases.

4. Leave to dry.

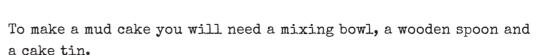
5. Ice with crushed egg shells then decorate with petals and pretty things you can find.

WARNING

Don't eat mud pies or cakes; it can make you very sick.

After earthquakes and floods in Haiti, one of the world's poorest countries, some of the very poorest people are eating dried 'mud cakes' to stop their feelings of hunger.

Mud cakes



Water

Earth (soil, silt, clay or other natural stuff in the ground)

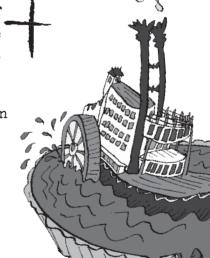
1. Add the water to your earth to make your basic mud-mix.

2. Pour your mix into a tin and leave in the sun to dry.

3. Push a small stick into the centre of the pie. If the stick comes out with no wet mud, your cake is ready.

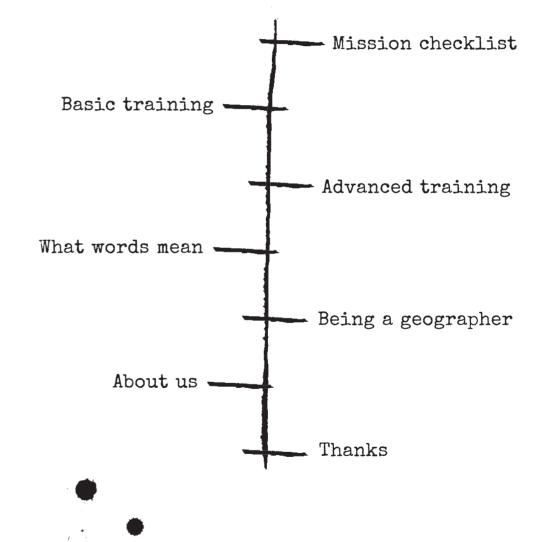
4. Turn your cake out of the tin and decorate before serving.

To make a mud pie rather than a cake, serve before the mud has gone completely dry.



What's in this section?

Welcome to everything else



Grow mission checklist

- ## MEFOOL Grow a pea pod
- ti MEF002 Produce a chilly chilli
- MEF003 Find your plant's funny bone
- MEF004 Grow a Kobe-style carrot
- 11 MEF005 Design a scarecrow
- MEF006 Design a friendlycrow
- MEF007 Meet your meat
- MEF008 Eat a bunch of flowers
- MEF009 Make rubbish plant pots
- MEF010 Hold a growing olympics
- MEFOll Grow something you can't eat
- MEFO12 Seed a soil map
- MEF013 Form a private army
- tt MEF014 Plant life
- MEF015 Help grow unusual species
- ## MEF016 Become a guerrilla gardener
- MEF017 Make a petal palette
- MEF018 A-maze-ing onions
- 11 MEF019 Grow some bread
- MEF020 Send a cress message
- MEF021 Grow a free meal
- MEF022 Inner beauty contest
- MEF023 Bee friendly
- ti MEF024 Microgarden
- 11 MEF025 Get sowing



Harvest mission checklist

- MEF026 Don't bite endangered fish
- MEF027 Harvest some green things
- MEF028 Go freegan for a day
- MEF029 Spot where you don't get food
- MEF030 Go bananas
- MEF031 Forage for food
- MEF032 Good hunting
- MEF033 Make a t-shirt bag
- ft MEF034 Got milk?
- MEF035 Become a preservation professional
- ti MEF036 Egg propaganda
- tt MEF037 Which comes first...
- MEF038 Traffic light your food
- MEF039 Go fishing
- MEF040 Eat the whole thing
- MEF041 Buy direct
- 11 MEF042 Do a marathon harvest
- MEF043 Make a disaster plan
- MEF044 Label unseasonal food
- 11 MEF045 Watch another animal harvest food
- MEF046 Learn your cuts
- MEF047 Research death
- MEF048 Hold an overharvest festival
- t1 MEF049 Delicious dilemmas
- MEF050 Where in the world do your pigs come from?
- MEF051 Harvest the elements
- MEF052 Interrogate a vegetable
- ## MEF053 Culinary cartography
- MEF054 Harvest bread





Cook mission checklist

- MEF055 Cook in acid
- MEF056 Invent a cheese
- MEF057 Cook without an oven
- ti MEF058 Cut country cookies
- MEF059 Reconstruct a deconstructed salad
- tt MEF060 Create Micro(nesia) pancakes
- MEF061 Make fairly friendly energy bars
- MEF062 Pack portable provisions
- MEF063 Be a crisp taste tester
- MEF064 Be the creator of a pizza planet
- ## MEF065 Conduct a psychosoup traffic light experiment
- MEF066 Play 5-in-a-day
- MEF067 Cook like a caveman
- MEF068 Spice up your snacking
- MEF069 Don't be a jerk
- MEF070 Bake the most profitable cake
- 11 MEF071 Strata Sandwiches
- ti MEF072 Turn cream to ice
- MEF073 Make a meal for you and a horse
- ## MEF074 Culinary art collector
- MEF075 Be a health inspector
- MEF076 Become a potato head
- MEF077 Create ginger beer monsters
- MEF078 Map your recipes
- MEF079 Preserve grapes...
- MEF080 Create a cultural mash-up
- MEF081 Design a menu
- MEF082 Make the oldest edible fruit salad
- MEF083 Build a salad city
- 11 MEF084 Ketchup mash-up
- MEF085 Bake your own bread
- MEF086 Whizz up frozen fruit smoothies
- MEF087 Draw a cooking tree
- MEF088 Cook something by...

Eat mission checklist

- MEF089 Live below the line
- MEF090 Give your fork a rest
- MEF091 Suggest some salad
- MEF092 Eat your height in spaghetti
- MEF093 Spread peas
- MEF094 Eat your words
- MEF095 Myth bust
- ti MEF096 Go cannibal
- MEF097 Gobble, nosh and chow down
- MEF098 Compare global calories
- MEF099 Get as far as you can on a banana
- MEF100 Map your taste
- MEF101 Eat international
- MEF102 Eat opposite
- MEF103 Fragrant or foul?
- MEF104 Feed the neighbours
- MEF105 Have a disgusting month
- MEF106 Survival pack
- 11 MEF107 Play taster!
- MEF108 Sing for your supper
- MEF109 Experiment with diets
- 11 MEF110 Edible band
- TI MEFILL Senseless snacking
- MEF112 Vary the temperature
- MEF113 Set a posh place setting...
- MEF114 Extreme dining
- MEF115 Hold an picnic
- MEF116 Around the world in 80 cheeses



Waste mission checklist

- MEF117 Use everything, waste nothing
- ti MEF118 Turn a poo into a pumpkin
- MEF119 Wash up in the rain
- tt MEF120 Dance the robot
- ti MEF121 Where has your bum been?
- 11 MEF122 Mould mapping
- ti MEF123 Rubbish human
- ti MEF124 Ditch your packaging
- ti MEF125 Crumb banquet for birds
- MEF126 Explore the world of loos
- fi MEF127 Eat leftovers
- MEF128 Make a chocolate poo
- ti MEF129 Poo protest
- MEF130 Ignore best before
- ti MEF131 Cook your soil a meal
- MEF132 Toilet roll test
- MEF133 Keep a poo diary
- ti MEF134 Be a hero
- ## MEF135 Run a rotten race
- ### MEF136 Discover gum constellations
- ## MEF137 Don't waste yourself

Soil mission checklist

- 11 MEF138 Unearth a history
- tt MEF139 Make a mud mask
- ft MEF140 Eat dirt
- tt MEF141 Build a soil zoo
- 11 MEF142 Dirty art
- MEF143 Soil splats
- MEF144 Put down roots
- ft MEF145 What is the point of lawns?
- tt MEF146 Build a soil castle
- MEF147 Get muddy, dirty and soil yourself
- MEF148 Bury a plant
- t1 MEF149 Curate a soil collection
- ti MEF150 Make a decomposing body
- tt MEF151 Harvest soil
- tt MEF152 Make an impression
- 11 MEF153 Colour carrots
- 11 MEF154 Soiling race
- ti MEF155 Be a worm charmer
- tt MEF156 Find treasure
- 11 MEF157 Root map
- ## MEF158 Drain your soil
- tt MEF159 Make mud cakes







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Basic training

You are going to die. This shouldn't come as a shock to you, but we'd prefer it if you died a long time from now and without making too much of a mess. To increase your chances of enjoying successful explorations we've cooked up some basic training for you. Follow these tips and you'll be more likely to come back alive.

Before starting

- Get permission and make sure the weather is not going to turn bad.
- Make sure you let someone responsible know where you are going and what time you'll be back.
- Always pack some basic kit: a watch, a fully-charged phone or some change for a phone box, and basic survival kit (including any medication you take, some plasters, a snack and a drink).
- Pack a map and a compass too for navigating and marking discoveries.
- Get into a team for the more challenging missions. Three is a magic number. If one of you gets hurt, one person can stay with them while the other goes for help. Agree a call (hoooo!) sign and a place where you can meet if you get split up.
- Hatch a plan in case it all goes wrong. Where could you go to get help? Who would you call?



Taking risks

Taking risks is a normal part of life. Taking risks can increase your chances of being healthy, interesting and knowledgable. Do be creative, try new things and risk failing but don't be stupid. Use all your senses to see and avoid dangerous stuff.

Emergency contacts

Make sure you know who to contact in an emergency. Write their numbers here.

Emergency contact 1:

Emergency contact 2:

Emergency contact 3:

Emergency services (Ambulance, Fire, Police):

The number 112 can be used for emergencies in most countries.

Emergencies

If the mission goes pear-shaped, follow these three steps:

- 1. Don't panic!
- 2. Call your emergency contact, tell them what has happened and where you are.
- 3. Stay where you are and wait for them to arrive.

If you need to do some first aid take a look at the back of this book for some tips and tricks on what to do.



You and your team

	the best explorers have rules that they never break. Here are some to p you keep your head on:
	Only attempt a mission if you can do it reasonably safely.
	Follow the instructions on warning signs and follow any other rules that you know about.
	Make sure that you look after your friends and don't be persuaded to take silly risks.
	If you get injured make sure you tell someone who knows what to do.
	Never use kit that you need training for, like climbing rope; it won't keep you safe if you don't know how to use it.
	Never go anywhere with a stranger, including a car or a house.
	Always take supplies: juice, fruit, snacks, chocolate and most importantly water!
Д	Don't stick anything in your mouth if you don't know what it is. You don't want to be poisoned and start puking up over everything.
	Cars are the deadliest beasts around. Avoid crossing roads, but if you have to, use a pedestrian crossing and make sure the way is clear.
Pec	pple, wildlife and places
	Protect and care for all people, animals, plants and places you visit
	Whenever possible, leave no trace that you have even been to a place or completed the mission. Leave everything, from gates and hedges to ruins and parrots, as you find them.
O	Dispose of rubbish appropriately or take it home with you.
Д	Don't touch plants or animals if you don't know them personally. They might bite, scratch, sting or poison you!

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J	If you're tak	ing a dog,	cat,	pigeon	or	other	animal	with	you	mak
	sure it's under your control.									

- Say hello to the people you meet. They'll like that and you'll like it when they say hello back.
- Be honest and take responsibility if things go wrong. You'll get far more respect.

Dangerous people

Most people you will encounter on your missions will be quite safe. Most people in the world are. But, just to be certain, don't get into the car of anybody that you don't know. Ever. Most importantly, don't agree to go into anyone's house without the permission of the people who look after you.

Safe people

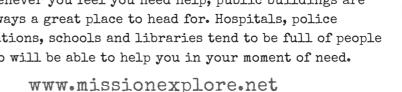
Most adults are safe to ask for help from. If you get hurt or run into trouble the vast majority of adults will be able to help you but the best people to ask are those in the emergency services. If they're not around, ask a group of adults in a public place.

Dangerous places

There are lots of signs that warn you of hazards. Follow their advice. Without special training, high, slippery, electric, explosive, sharp, mean and very hot places should be avoided.

Safe places

Whenever you feel you need help, public buildings are always a great place to head for. Hospitals, police stations, schools and libraries tend to be full of people who will be able to help you in your moment of need.



First aid

Injured in the name of exploration? Here's some useful advice to follow. In all cases, tell someone you trust what happened and get checked out. Even the bravest and most famous explorers need a bit of looking after, especially if it involves some hot chocolate and cake. When asked how you hurt yourself, remember to tell everyone all about your amazing, deathdefying mission!

Over the next few pages you can find out some basic things to help tackle:

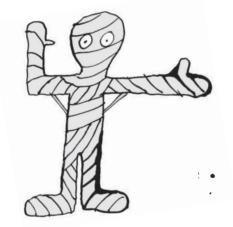
- 1. Bleeding
- 2. Broken bones
- 3. Burns
- 4. Poisoning
- 5. Insect bites and stings
- 6. Suffocating and choking
- 7. Drowning

1. Bleeding

Blood rushing out of your body? Remember two simple steps:

- 1. Put pressure on the cut.
- 2. Raise the cut above your heart. If it's your leg that's bleeding lie on your back and lift your leg.

If it's your head that's hurt, put pressure on the cut to stop the bleeding and make sure that you get checked out by the doctor.



2. Broken bones

Arm in howling pain, and can't remember any fancy bandage work? Don't panic!

- 1. Don't move the affected arm or leg.
- 2. Find a comfortable position to hold it in and then get help. It's a trip to the hospital for you.
- 3. Make a note of where you are and phone your emergency contact. The more you move the more a broken bone will hurt - so try to be like a stone.

Broken bones and bleeding?

Follow the advice for bleeding and the advice for broken bones.

3. Burns

Had an encounter with something too hot? You need to get the affected area into cold water fast.

If you are close to home just run your burnt bit under the cold tap for 10 minutes.

Nowhere near home? Try to find a stream or use the taps in a public building. After cooling it, check the burnt bit and keep it clean. Don't put any fuzzy bandages on it if you value your lovely skin!

Make sure that you show your burn to someone who knows about burns. You may well need to go to hospital.





4. Poisoned

Eaten or drunk something and feeling dodgy? It's a trip to the doctor for you. Don't forget to grab the container showing what you swallowed.

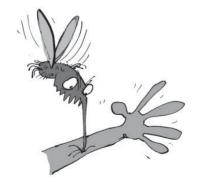


5. Insect bites and stings

You don't have to be in the jungle to have your arm bitten off by a ravenous beast. Even the smallest critter can leave you feeling quite sore.

First, check if any of your mates are allergic to any bites. If they are, they will have an EpiPen®. Make sure you know what to do with it!

If you are not allergic to bites, your bitten bit may still swell up, so keep it elevated above your head. If you have been bitten by something poisonous, call for help and get to a doctor as soon as you can.



6. Suffocating and choking

Swallowed something stubborn? Follow these steps.

- 1. Try to cough the pesky piece up, and if that does not work
- 2. Get somebody to slap you on the back while you bend forwards. Five hard slaps between the shoulder blades should do the trick, but if that doesn't work...
- 3. Get help. Don't go running in doing the Heimlich Manoeuvre you've seen in that cool movie. It's only for the pros so get yourself trained first!

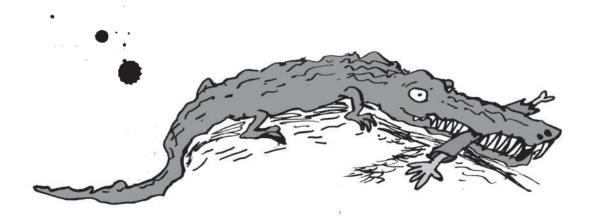
7. Drowning

Water can be one of the deadliest of substances. If you can't swim, don't go in. It's that simple!

Many people get into trouble because they trip or fall near the edge and end up falling in.

Even if you are a good swimmer, cold water and water currents can make it a lot more difficult. Don't get too close.

Just been rescued from drowning? Get to the hospital and let them check you out as soon as you can.



Advanced training

If you fancy exploring at the next level join a club. There are loads out there that can offer you more advanced training. They have the right professionals with the best kit. If you join, you'll be tooled up for even bigger explorations in no time. Over these two pages you'll discover lots of organisations. Explore their websites to find information and courses that will help you develop your expertise in exploration.

Exploring

British Mountaineering Council www.thebmc.co.uk

British Canoe Union www.bcu.org.uk

Duke of Edinburgh's Award

www.dofe.org

Earthwatch

www.earthwatch.org

Field Studies Council

www.field-studies-council.org

Flora & Fauna International

www.fauna-flora.org

Girl Guides

www.girlguiding.org.uk

International Red Cross/Crescent

www.ifrc.org

Latitude Festival

www.latitudefestival.co.uk

Mapping skills

mapzone.ordnancesurvey.co.uk

National Geographic Society www.nationalgeographic.com

Ray Mears Bushcraft www.raymears.com

Royal Geographical Society

www.rgs.org

Royal Yachting Association

www.rya.org.uk

Scouts

www.scouts.org.uk

Sports Leaders www.bst.org.uk

St John Ambulance www.sja.org.uk/sja

The Geography Collectice www.geographycollective.co.uk

Wildlife Trusts

www.wildlifetrusts.org

Woodcraft Folk

www.woodcraft.org.uk

Grow

City Farmers
www.city-farmers.co.uk

Compassion in World Farming

www.ciwf.org.uk

John Muir Award www.jmt.org

Organic growing advice www.gardenorganic.org.uk

Guerrilla Gardening www.guerrillagardening.org

Hackney City Farm www.hackneycityfarm.co.uk

National Trust My Farm www.my-farm.org.uk

Secret Seed Society
www.secretseedsociety.com

The co-operative farms
www.fromfarmtofork.co.uk

Young Farmers www.nfyfc.org.uk

Harvest

Global Footprint Network www.footprintnetwork.org

Foraging
www.eatweeds.co.uk

Freedom Food www.rspca.org.uk/freedomfood Marine Stewardship Council www.msc.org

Cook and Eat

Live Below the Line www.livebelowtheline.com/uk

Real Bread Campaign
www.sustainweb.org/realbread

Slow Food www.slowfood.org.uk Young Veggie www.youngveggie.org

Waste and Soil

Recycling
www.recyclenow.com
Soil Association
www.soilassociation.org

Soil science
http://soil.gsfc.nasa.gov
Track your poo
www.flushtracker.com

What words mean

Abattoirs

Abattoirs or slaughterhouses are places where animals are killed so that they can be turned into food. Parts of the animal that can't be eaten by humans are turned into animal feed, leather, glue, soap and other products. Turn to page 80 for an abattoir related mission.

Bees

Bees are vital to our survival. They pollinate plants, a job which is vital for new ones to grow and for us to get our food. For a bee mission turn to page 45.

Dirt

Dirt is something that's thought to be in the 'wrong place'. Soil in the ground is soil but as soon as it's all over your face other people may say you've got a dirty face. Having said that, if you think it's not in the wrong place then it's not dirt and so you've just got a muddy mask like on page 219.

Ecological debt

Ecological debt means that people are using resources like water, fish, plants and soil more quickly than they can be replaced or replenished. As a group of over 7 billion people the human race is currently 'overshooting' how much we can sustainably harvest. Overharvesting leads to food shortages, reduction in food quality and the destruction of peoples, places and wildlife. We must become smarter about what, where, when, how and how much we harvest. Check out The Footprint Network (page 259) to learn more, then complete the mission on page 82.

Fertiliser

Fertiliser is something you add to plants and crops to help them grow better, faster and stronger. However, not all fertilisers are a great idea. Some of them include nasty chemicals that can damage soil, the environment and whatever eats them (including humans) sick. It's important to know the positive and negative effects of any fertiliser before using them. Look up pages 204 and 240 for missions to help feed your soil.

Freegan

Freegans eat food that's been thrown away by other people, mostly supermarkets or other shops. If you think this sounds a little dirty (which it could be), try intercepting food before it reaches the bin. See page 57 for a freegan mission.

Free-range

No-one likes being cooped up inside all day, but some animals are kept in cages or barns their entire lives. Some of these animals have very little space to move around in, can't stretch their wings (or hooves, or paws...) and might never see sunlight in their lives. Most people think it's much kinder to let animals roam free before they are killed to be eaten. Eggs are often labelled to show if the birds that laid them were free-range or not. For many other foods, including meats, it can be much harder to find out. Turn to page 68 to uncover a free-range label mission.

Kobe

Kobe is the fifth largest city in Japan on the island of Honshu. Kobe-style beef comes from cows that are fed well, are given beer to drink, listen to the radio and are given massages to make sure they live calm and relaxed lives. This is said to improve the quality of the meat and is inspired by true Kobe beef, a delicacy from the Hyōgo Prefecture of Japan. Turn to page 21 for a Kobe mission.

Living wage

A living wage is the amount of money someone needs to be paid to be able to meet their basic needs, like food and shelter. This changes depending on where in the world you live. Flip to page 70 for a mission on this issue.

Nestlé

Nestlé is a really big company that produces all kinds of food including fresh, tinned, and powdered dairy products.

Organic

Organic means without unnatural chemical pesticides, fertilisers or additives (which are added to "improve" growth). See page 32 for an organic mission.

Palm oil

Palm oil comes from oil palms. These trees are grown for us on plantations in many rainy tropical countries. The oil comes from the fruit of the tree and is a vital ingredient for making chocolates, biscuits, peanut butter and lots of other tasty things, including shampoo.

Planting of new oil palms is destroying many habitats. Orangutan, Slow Loris and other species have been affected. Using old plantations can be a valuable source of income for people and not cause any more harm to habitats. Contact the companies that make your food and find out if your palms were planted in new or old plantations.

Pesticide

Pests are animals, insects, birds, plants and diseases that can damage crops by eating them, living in them, or giving them diseases. Some people think that the best way to stop this happening is to use pesticide chemicals to kill the pests, make them sick, or scare them away. This means crops are usually bigger and growers can make more money from them. However, there are natural ways to stop pests and it is not always necessary to get rid of them at all. Some animals may think that people are pests.

Refugee

Refugees are people who are forced to leave their own country because it isn't safe to live there anymore.

Seasonal

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Different foods are naturally available at different times of the year. This is because plants and animals grow and are harvested in cycles that follow the seasons. In some parts of the world these are autumn, spring, summer and winter and in others they may be wet and dry seasons. Food that is 'out of season' often needs more water, more energy, and sometimes pesticides or fertilisers to help them grow at different times of the year. Other unseasonal foods are transported long distances. Visit page 76 for an unseasonal mission.

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Sustainable

If you use something (like soil or stocks of fish) sustainably it will not run out and will be available for people in the future. If you harvest something unsustainably it will eventually no longer be available. Dodos were hunted unsustainably in Mauritius and as a result are extinct. To attempt a sustainable mission turn to page 54.

Trade

Before food reaches your plate it's probably been traded several times. Trade is when something is given in exchange for something else. The important thing with trade is that any income is shared fairly between the growers, makers and sellers. Keep your eyes open for Fair Trade labels on many products. To complete a trade-based mission go to page 59.

Weight problems

There is no one 'right' weight as everyone's bodies are different. If you eat more than your body needs or don't use up all of the energy it gives you, then you might end up being overweight. If you don't eat enough or use up too much of your energy, you could become underweight. It's important to eat a healthy amount and be active to balance out the energy you eat and the energy you use. Turn to a bananas mission to explore this issue more on page 160.

Any other words

If there are words in this book you don't understand that are not explained here, try searching for information on the Internet or ask someone. You could even go old school and try looking in a dictionary, encyclopedia or thesaurus.



Eat well

Whether you're surfing the web, exploring what's on TV, trekking a mountain or sleeping under the stars it's important to eat well. Having a full stomach is not the same as having a good and balanced diet. Some people feel full but are malnourished. This means that their bodies are not fuelled with enough of the right nutrients.

Explorers crossing seas on ships have long known to make sure they pack lemons, limes and other fruits that are full of vitamin C to prevent a condition called scurvy. If you get scurvy you may get spots filled with pus, become moody and even die. You don't just need vitamin C; vitamins A, B, D, E, K and a range of minerals are all important for your body to grow and remain healthy. Luckily most of these chemicals can be found in a simple balanced diet.

Be balanced

All food can be divided into five groups. Each day you should aim to eat a mix from the first four:

- 1. Fruit and vegetables: you should eat 5 to 8 types and portions of these each day.
- 2. Starchy foods: around a third of everything we eat should be rice, pasta, bread and potatoes. Go wholemeal for the most vitamins and minerals. These foods will help you make good poo.
- 3. Beans, nuts, eggs, fish and meat: you need these for protein that help your muscles to be strong, and give iron, zinc and vitamin B.
- 4. Dairy foods including milk, cheese and yoghurt: you'll get protein from these and calcium too. Calcium is used by your body to make your bones strong.

The fifth group is fat and sugar. Food packed with fat and sugar, like sweets and fizzy drinks, can taste delicious and provide lots of energy. If you're hiking in cold mountains or playing hide-and-seek, having some chocolate can be a great source of energy. You don't need to eat anything from this food group to have a balanced diet though.

Burn energy and explore outdoors

A bit like a camel's ability to store water for an expedition across a desert, your body is capable of storing lots of fat. If you go on lots of adventures and take lots of exercise your body will use and burn the energy that you're eating. If you don't move around enough your body will store that energy as fat and you'll put on weight. It's vital that you don't eat too much saturated fat or sugar and that you take part in lots of games and adventures to keep healthy. By playing outdoors your skin will also soak up lots of vitamin D, an awesome vitamin that stops your bones from bending!

Read labels

Next time you're shopping, take a good look at all the labels on the food that you can buy. In many countries there is guidance that tells you what's inside the food you are buying. You may also get labels that show how much of an average person's RDA (recommended daily allowance) is in the food. This will give you an idea of how much of your daily sugar, salt, fat and other things are contained in the food. But remember, these labels are aimed at adults and your body is much smaller so you may need to eat less of it.

Being a good geographer

Geography is about curiosity, exploration and discovery. It gives you the power to see places in new ways, even imaginary ones. Geography also helps you to understand, make sense of the world and solve problems.

To be a successful geographer you should:

- · Think of your own questions.
- · Search for your own answers.
- · Talk, watch and listen to people, animals, plants and places.
- Think about who you are and the effects of your actions.

Geographers use many different 'ings' to research, share and act on discoveries.

Practice your ings to improve your ability to do missions including cooking, smelling, quacking, rubbing, swimming, mapping, mapping, drawing, comparing, counting, developing, proposing, tickling, watching, sharing, asking, feeling, searching, finding. observing, asking, listening, smelling, feeling, tasting, experimenting, sketching, recording, painting, researching, rolling, weighing, reporting and camping.

Be a Guerrilla Geographer

You can do the missions in this book just for fun. You can also do them to become a Guerrilla (not gorilla) Geographer.

As a Guerrilla Geographer you will ask questions about places and encourage other people to ask questions too. Guerrilla Geographers believe in the importance of justice and things being fair and friendly for people, wildlife and places.

Some of the missions you do will challenge people to think about things that are important to you. Other missions will get you or other people thinking geographically at what may seem unusual or unexpected times and places. Of course, it's also about having loads of fun, having adventures and discovering new things.



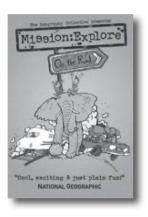
About Mission: Explore

Mission:Explore is a special kind of training for guerrilla geographers, experimental explorers and crafty cooks. Discover missions through our books, website and iPhone app. Our missions are not aimed at people of any particular age, but those with a particularly curious, critical and creative frame of mind. But be warned. By doing our missions you will never see the world in the same way again.

Visit MissionExplore.Net for loads more missions, to win points and to earn badges.







About the authors

This book has been written, designed, explored and published by The Geography Collective with City Farmers. We do hope that you like it and get it really dirty and full of your mission reports.

Together we are... Alan, Andrew, Andrew, Anthony, Caroline, Christina, Col, Daniel, Dawn, Emily G, Emily N, Emma, Helen, James, Jana, John, Juliet, Kenny, Kye, Marie, Matt, Menah, Peter, Philip, Richard, Roxanne, Ruth, Sarah, Seb, Simon, Sophie, Steve, Tobias, Tom and Tony.

About The Geography Collective

We are a bunch of guerrilla geographers who love travelling through time, exploring space, changing places, growing stuff and thinking in new ways. The youngest member of our team is 8 and the oldest is too old to remember how old they are. To see what we've been up to or to get in touch, visit www.geographycollective.co.uk.

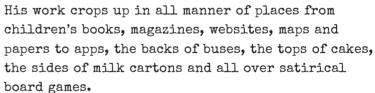
About City Farmers

City Farmers is run by Pete and Helen. They use maps, education and activism in their quest for sustainablity, equality and deliciousness. To find out more and see some of our maps, visit www.city-farmers.co.uk.



About the illustrator

Tom draws with a dip pen, often making an inky mess, which is why he called his website www.inkymess.com



Mr TM-J accidentally runs a company, with a couple of friends, called Terrorbull Games. They make satirical & educational board, card and digital games that are often on 'hot potato' subjects like the 'War on Terror'.

Tom lives in Cambridge and sees a tailless black cat pass his window from time to time.



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Mission:Explore



It's good to play with your food.