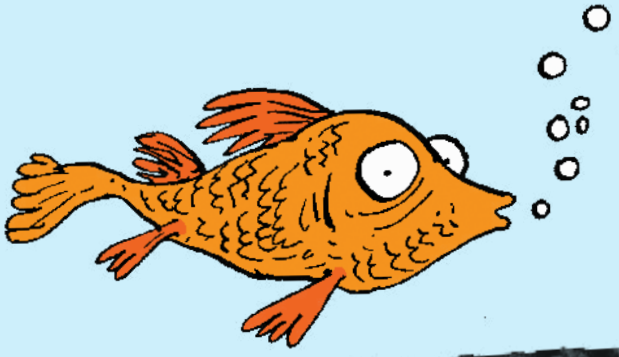
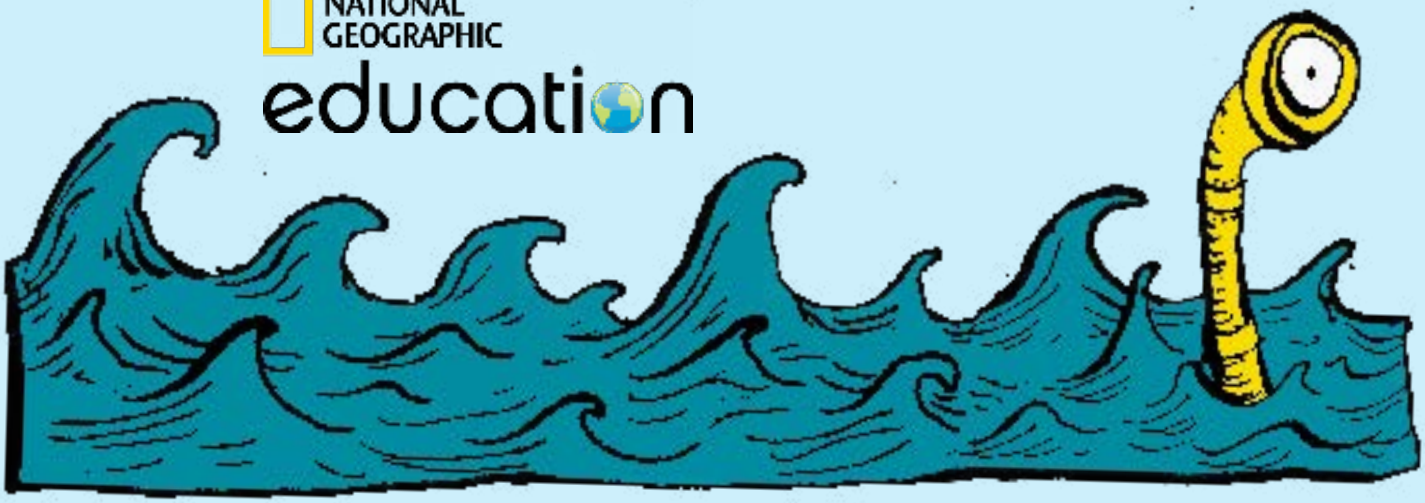


Welcome to

Mission:Explore

FOOD SUSTAINABLE SEAFOOD

NATIONAL GEOGRAPHIC education



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

www.missionexplore.net

Mission:Explore

SUSTAINABLE SEAFOOD

Dear Educator,

We have always been dependent on the world ocean for our survival. Even those of us in the centre of the world's largest continents depend on the Earth's largest bodies of water, if not for trade, culture, or food, then for the vital role they play in our weather and climate.

By completing the missions in this booklet your students will rethink their relationship with the world ocean through the seafood they eat. Do not go any further if you are afraid of going on adventures or tasting new things.

This is a special "seafood" version of Mission:Explore Food (a big book of 159 missions) and inside you will find 20 seafood-related missions—some have been adapted and some are written specially for this booklet. Each mission will help your students think differently about their relationship with not only seafood but also the ocean, people, places and systems that they are connected to.

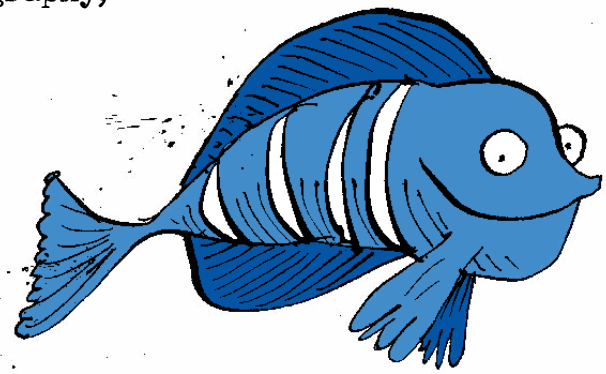
The challenge is for (you and) your students to complete and record the mission-based learning activities that you'll find on the following pages.

Each of the illustrated activities that you find in this booklet are appropriate for learners of all ages, but younger learners will need more support to get going, and we're sure you'll be expecting much more sophisticated responses from more advanced students. This is a Creative Commons publication, so feel free to copy and use each of the missions however you want.

With your help, by the time your students have completed their unique copy of this booklet they will have a deeper understanding of their interdependence with all things seafood. They'll also develop their creative and critical skills in extreme exploration, guerrilla geography,
and munching on tasty stuff.

It's time to explore.

The Geography Collective



Mission:Explore

SUSTAINABLE SEAFOOD

Dear Explorer,

This booklet will change the way you see seafood forever. Reading further will result in going on adventures, taking risks and trying new things.

The world ocean is beautiful, but it is also critical to our survival. Our weather and climate is shaped by it. It contains vital global ecosystems. Our economies rely on it, and it is a source of food for billions of people around the world. Our lives depend on the world ocean.

Overfishing, climate change, and pollution are all having devastating effects on sea life around the world. Seafood supplies are under threat. Millions of people's jobs are at risk and many species of fish are on the brink of extinction.

It's not all bad news though. There are many success stories of efforts to protect sea life and the livelihoods of people who depend on it. You too have the power to protect the ocean. We are all connected to our world ocean, and by exploring and understanding these connections we can take action to restore it.

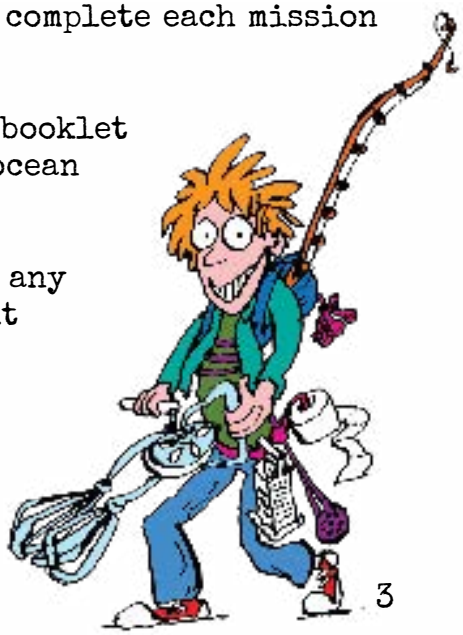
Inside this special Mission:Explore Seafood booklet you will find 20 seafood-related missions. Each mission explores seafood in a different way and reveals how you are connected to the ocean. Your challenge is to complete each mission as best you can.

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

Do make sure that you have permission before attempting any mission from this booklet, and remember, the more you put in the more you'll get out.

It's time to explore.

The Geography Collective

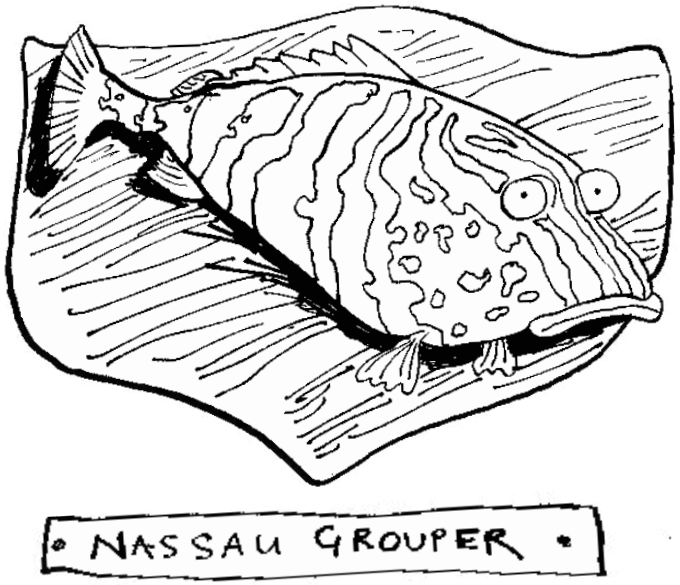


MESFOO1

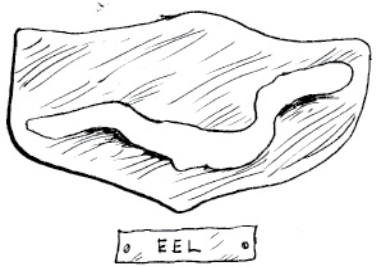
Don't bite endangered fish

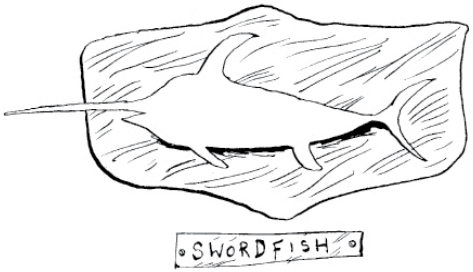
Some species of fish are being caught, or harvested, and eaten so quickly that their numbers are going down. Many are endangered and even face possible extinction because we're overharvesting them.

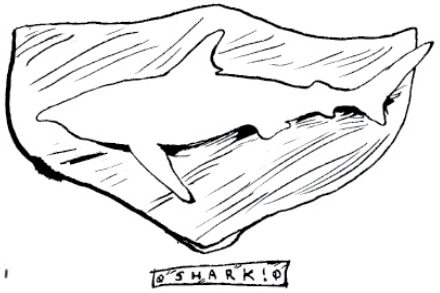
Complete this identification chart to help you avoid munching on these increasingly rare sea creatures.



There are lots more fish that you could add to your chart. Visit the Marine Stewardship Council website to work out which fish are safe for you to eat. www.msc.org







MESF002

Spot where you don't get seafood

Draw lines from where you live to where your seafood comes from.
Where in the world **don't** you get seafood from?

MESF003

Good hunting

All animals in the world can be hunted, 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 on the line in an order of your choice.

Koala

Red Snapper

Sheep

Tarantula

Dog

Geese

Grouper

Pig

Horse

Mongoose

Crocodile

Pigeon

Crab

Seal

Baboon

Cat

Whale

Elephant

Flying ants

Cockroach

Lobster

Squirrel

Cod

Anaconda

Cow

Dolphin

Squid

MESF004

Traffic light your seafood

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

Investigate how your seafood 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.

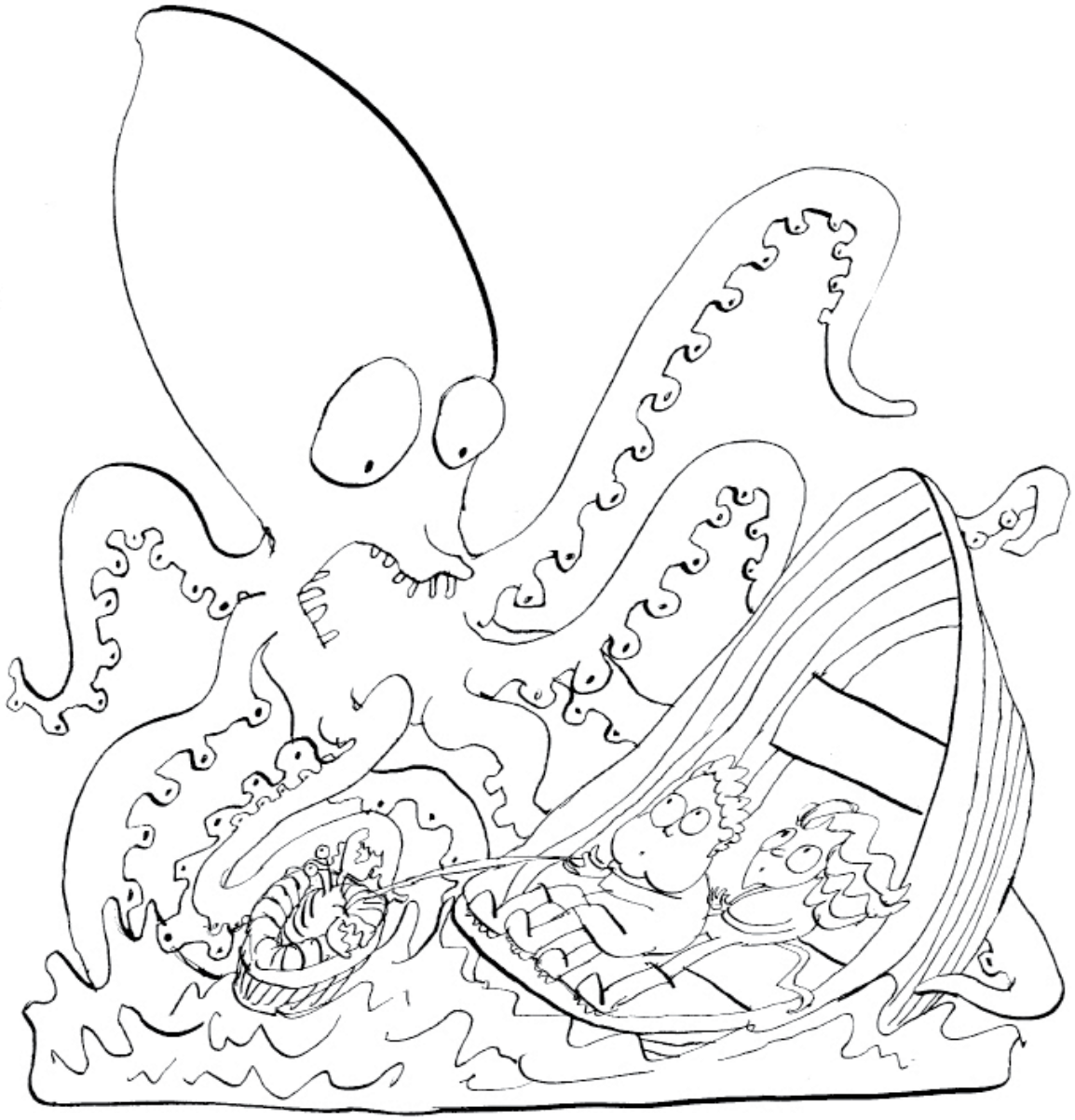
~ Were the people involved in your seafood given a living wage?
~ Were any creatures treated well?
~ Is your seafood sustainably harvested?
~ Was it transported a reasonable distance?
~ Was the place it came from treated well?

Green = Good	Yellow = Satisfatory	Red = Bad

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.

MESF005
Go fishing

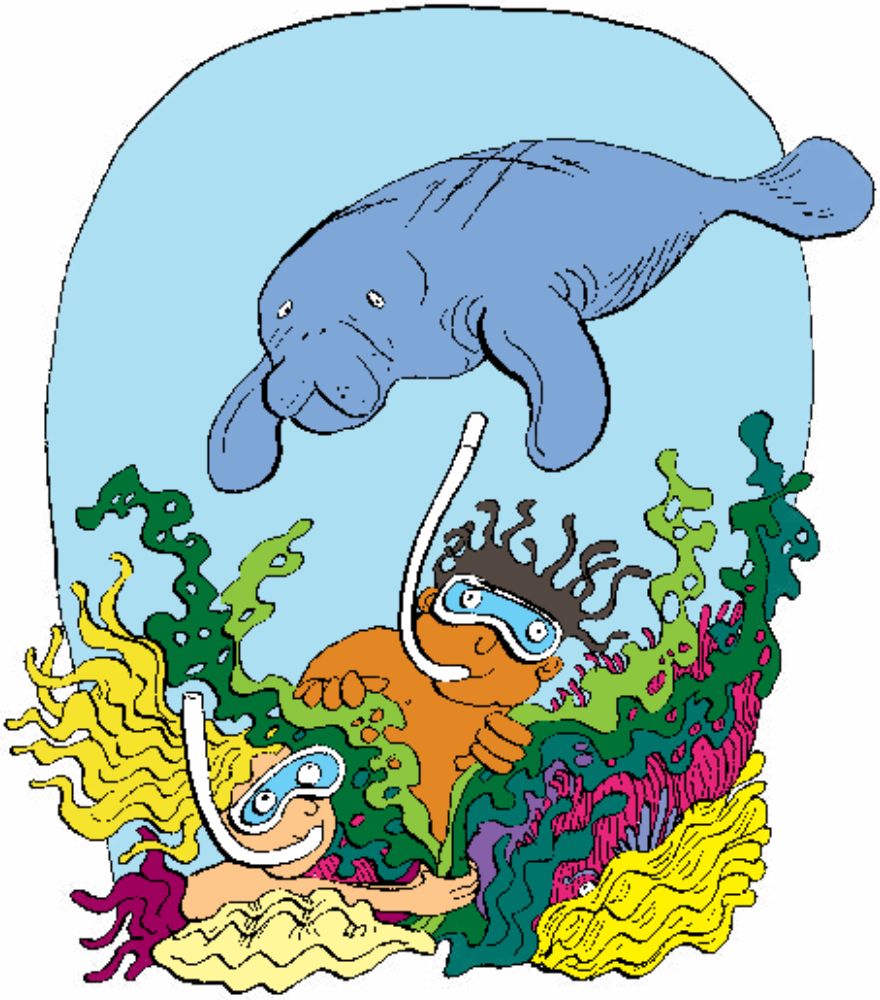
Add something fishy here.



☐ MESF006

Watch another animal harvest seafood

Sketch it here.



MESF007

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 creatures and communities around the world. To raise awareness of this issue, hold an overharvest festival.

Use this planner to help you organize 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.

MESF008

Innovate with seaweed

How many different things can you use seaweed for? Keep a list of your inventions.

MESF009

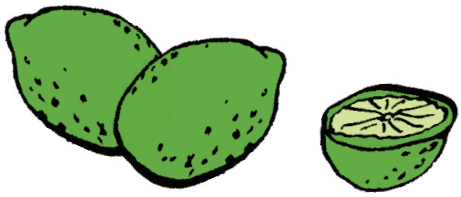
Delicious dilemmas

Choose which one you think is better to eat. Why?

garlic for a week	sprouts for a week
farmed fish	wild fish
local food	fair trade food
environmentally friendly food	people friendly food
meat	plants
chocolate	potato chips
1 endangered fish	100 not endangered fish
anything	everything
seal	dolphin

When you research this mission remember that the answer may not be straightforward. Consider advantages, disadvantages, and likely outcomes for each delicious dilemma.

MESF010
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
¼ 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.

2. Put any waste in your compost.

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

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

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

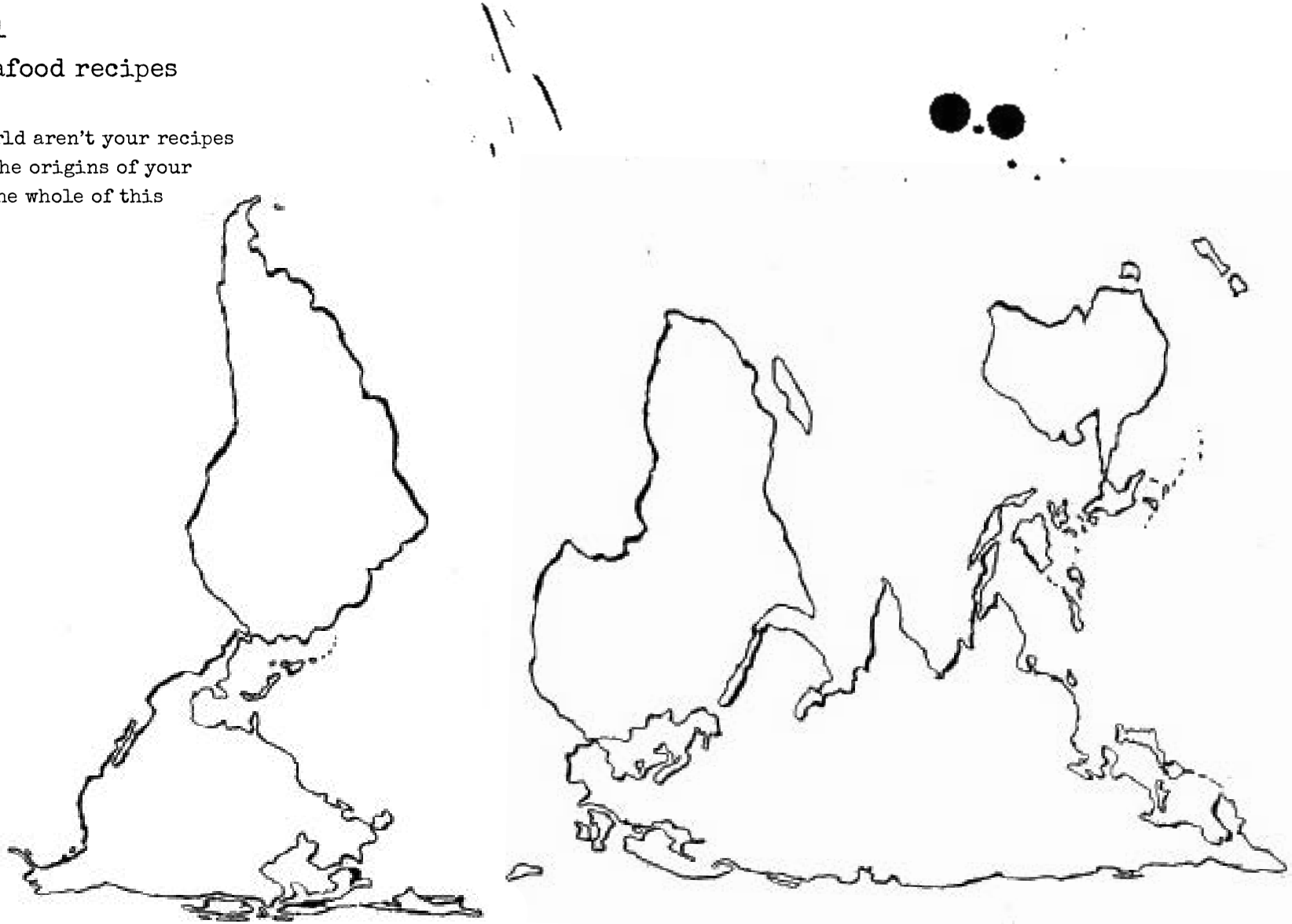
Serving suggestion: enjoy on a beach at sunset.

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.

MESF0011

Map your seafood recipes

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



MESF012

Design a sustainable seafood menu

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

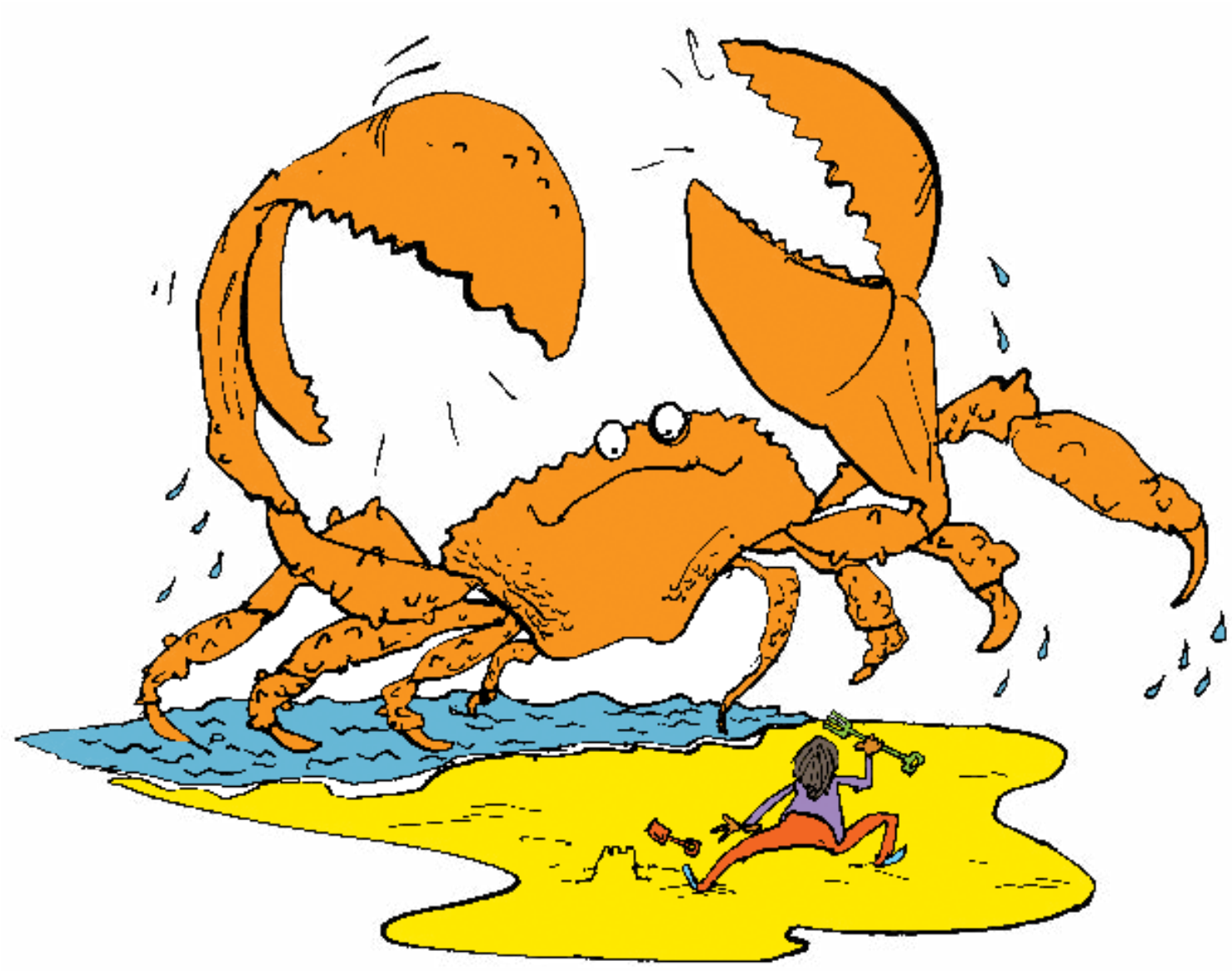
Design your dishes so they:
~ are tasty;
~ are healthy;
~ are fair and friendly for the growers;
~ are as friendly as possible to creatures and plants;
~ have ingredients that have travelled to you sustainably;
~ and need the least amount of energy to be cooked.

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

MESF013
Alien attack

Defend your local coastline against alien invaders that are damaging your local ecosystem. Research, hunt down, catch, cook, and eat sea animals or plants that have invaded beaches, rock pools, or local waters. Check out www.eattheinvaders.org for tips.

Keep count of the aliens you've personally digested here:



MESF014

Draw a cooking tree

Create a family tree and collect a recipe that uses seafood 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.

MESF015

Cook your seafood by...

- ☐ Roasting
- ☐ Barbecuing
- ☐ Grilling
- ☐ Broiling
- ☐ Searing
- ☐ Baking
- ☐ Boiling
- ☐ Blanching
- ☐ Braising
- ☐ Infusing
- ☐ Poaching
- ☐ Pressure cooking
- ☐ Simmering
- ☐ Steaming
- ☐ Stewing
- ☐ Frying
- ☐ Sautéing
- ☐ Stir-frying
- ☐ Smoking

MESF016

Capture a crustacean

Say hello to your catch, then issue them with an official reprieve before setting them free.

List your reasons here:

1.

2.

3.

Get permission for this mission: you might need a license. Only release creatures into the place you found them or they might end up damaging habitats.

MESF017

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

Pescatarian

~ 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

Kangatarian

~ No meat, except kangaroo

Friendly? /10 Delicious? /10

Nutritious? /10 Easy? /10

MESF018

Ditch your packaging

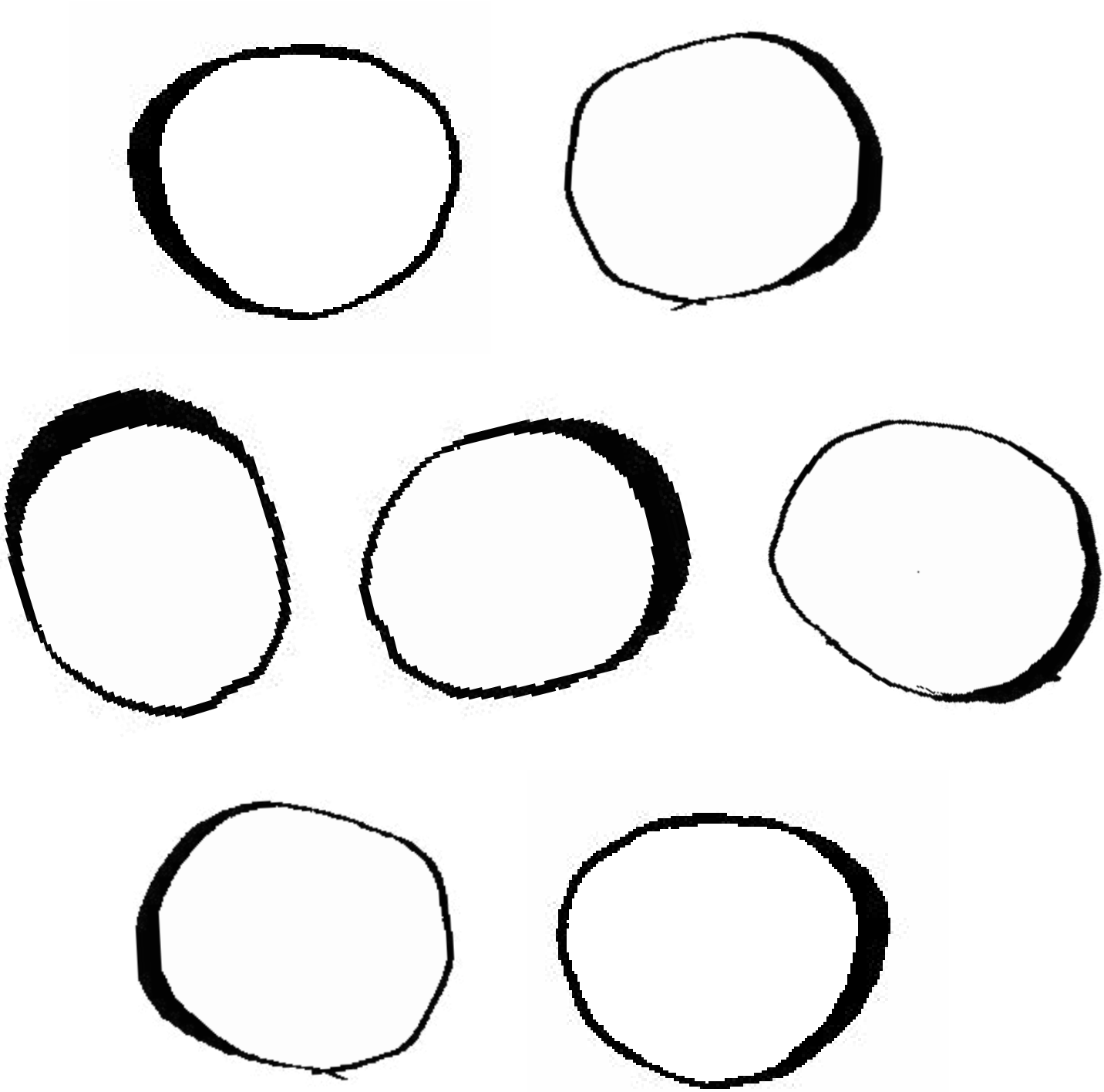
Food packaging is floating around the world ocean, infiltrating the food chain and harming many sea creatures. Encourage supermarkets to use less packaging by asking to leave all the bits you don't need at the cash register before taking your food home.

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

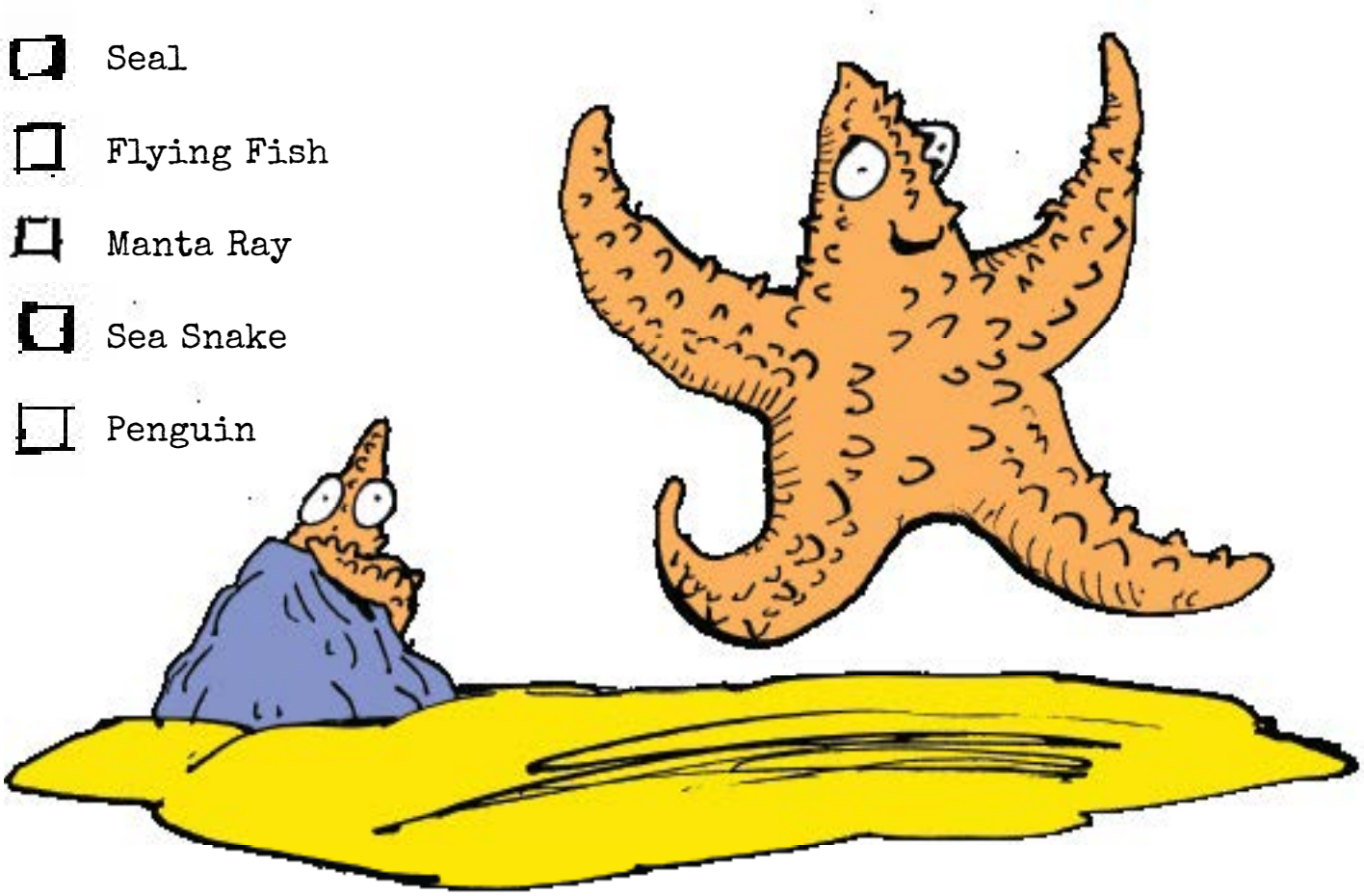
Some supermarkets encourage customers to do this so they can understand how to reduce their packaging costs.

⌗ MEOC019
Smells fishy

Make this page smell of the seaside by filling each of these circles with different fishy scents.



MEOC020

Explore like a ...

- ☐ Shark
- ☐ Dolphin
- ☐ Seahorse
- ☐ Squid
- ☐ Sea Star
- ☐ Salmon
- ☐ Manatee
- ☐ Seal
- ☐ Flying Fish
- ☐ Manta Ray
- ☐ Sea Snake
- ☐ Penguin