

# CORAL HEROES

ADVENTURES ON THE REEFS OF TOWABONGA



secore  
international



# OUR HEROES ...



LEATHERY CORAL

JO GRUMPY



BRAIN CORAL

SAMY SMART



ELKHORN CORAL

AL MOOSE



BRANCHING CORAL

BRAN RAMOSY



OCTOPUS

DOC KRAKEN

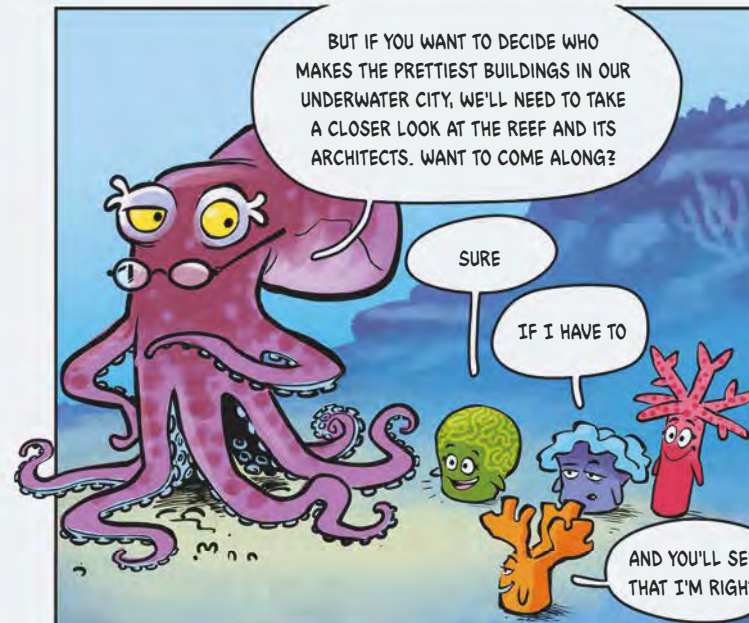
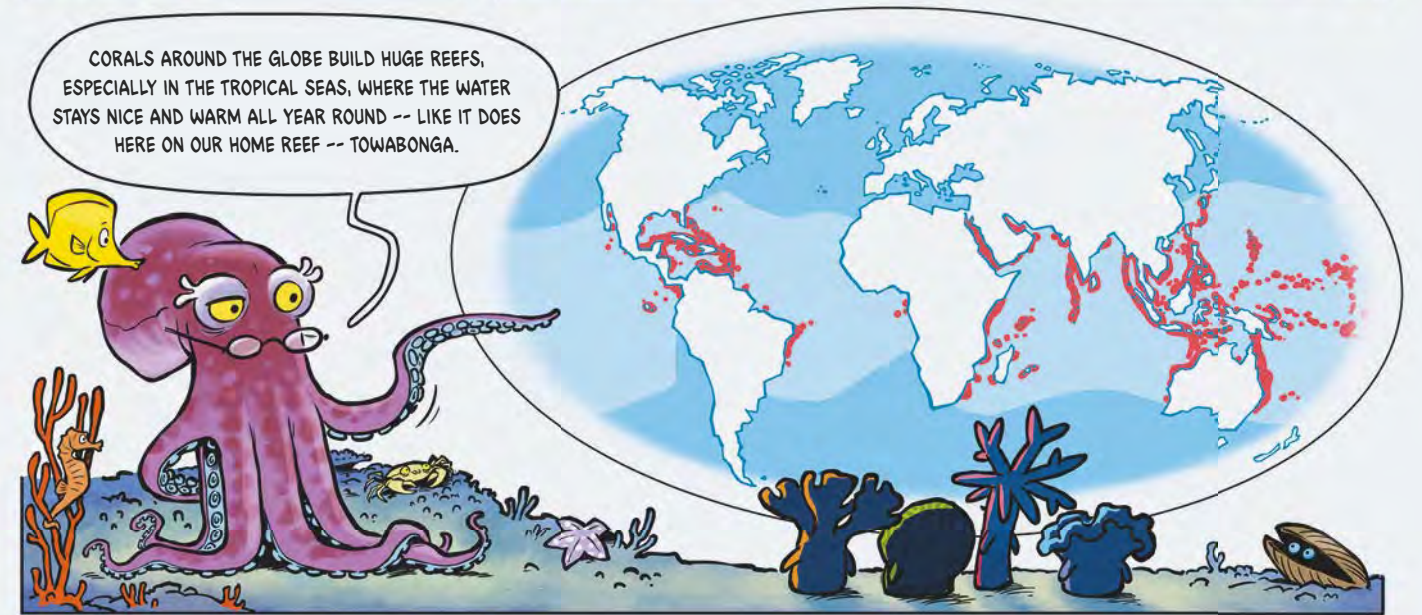
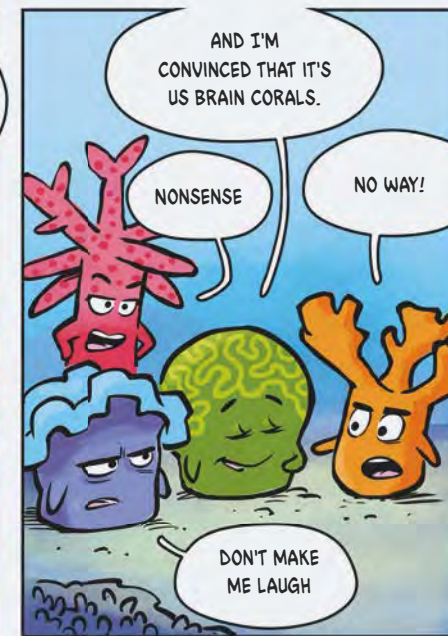
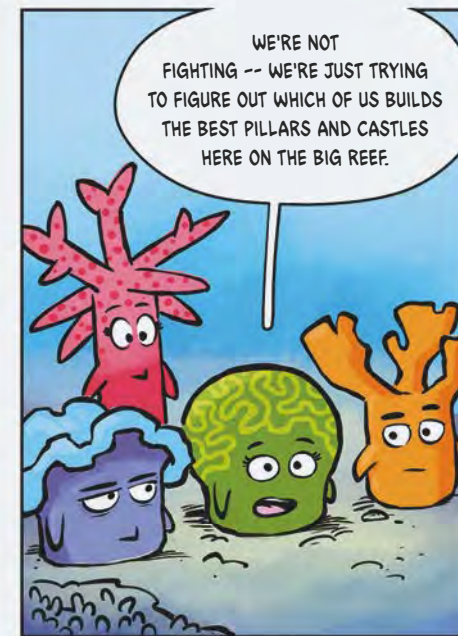
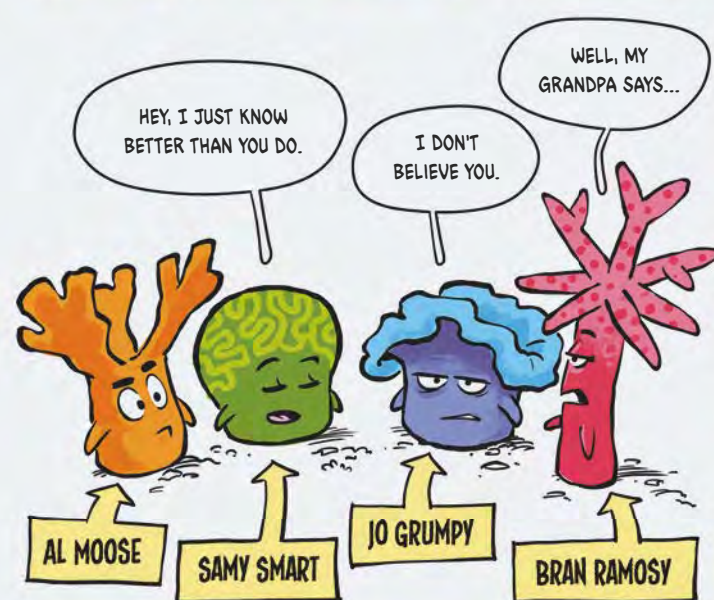
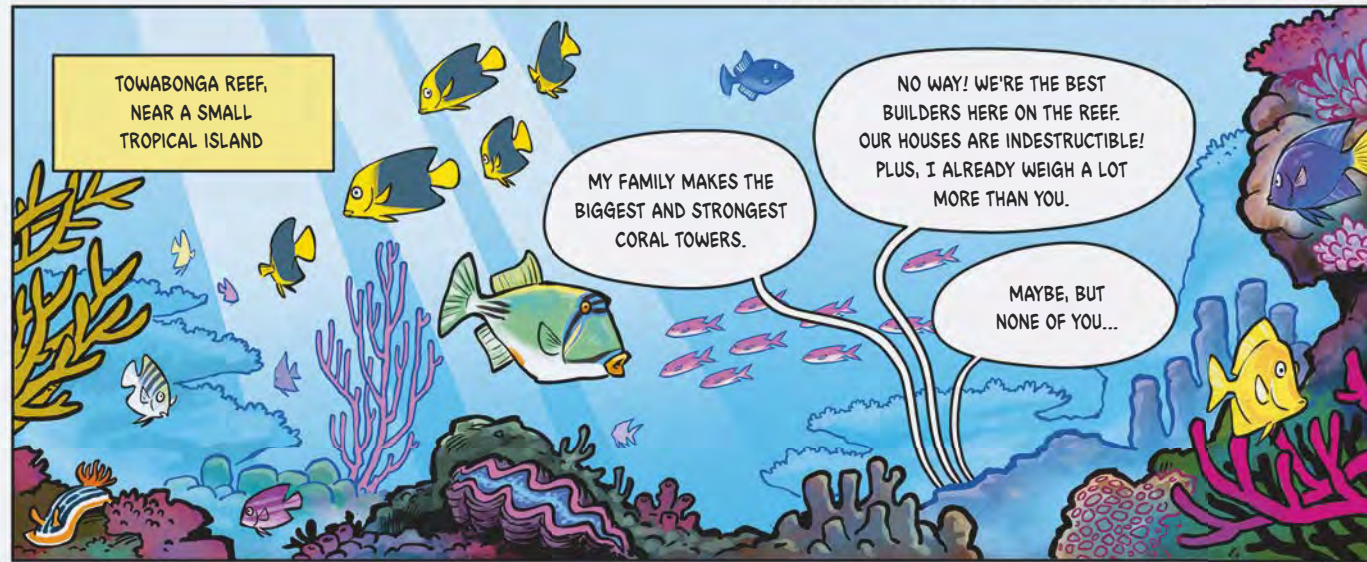
## CORAL REEFS - BURSTING WITH LIFE

TROPICAL CORAL REEFS MAKE UP LESS THAN ONE PERCENT OF THE SEABED WORLDWIDE, ASTONISHINGLY ENOUGH, THEY ARE HOME TO THOUSANDS OF ANIMAL AND PLANT SPECIES. WHILE VAST PARTS OF THE SEAFLOOR ARE PLAIN, SOFT BOTTOMS HOSTING RELATIVELY FEW SPECIES, CORAL REEFS BURST WITH LIFE! THERE ARE 1500 REEF-FORMING CORAL SPECIES WORLDWIDE, MOST OF THEM CAN BE FOUND IN THE SUN-FILLED SHALLOW WATERS OF THE TROPICS. EVEN IN THE COLD AND DARK DEEP-SEA YOU WILL FIND CORAL REEFS; BIODIVERSITY HOTSPOTS AMIDST MUDDY AND SPECIES-POOR ABYSSAL GROUNDS.

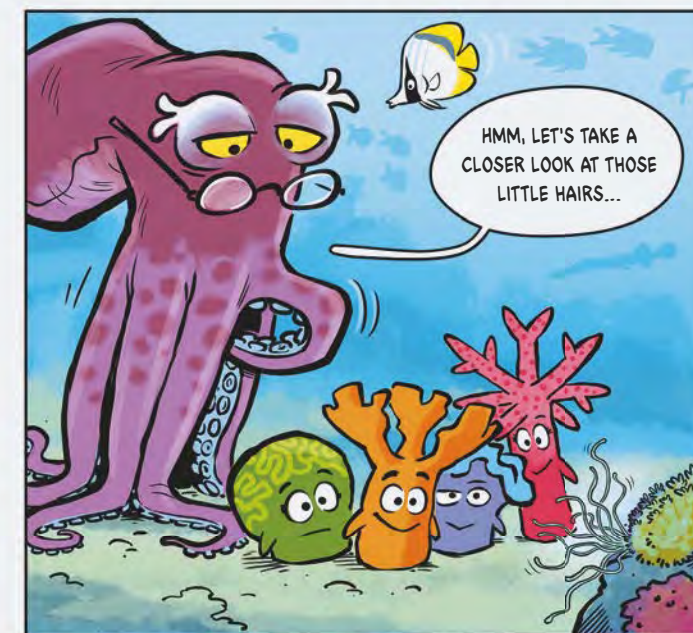
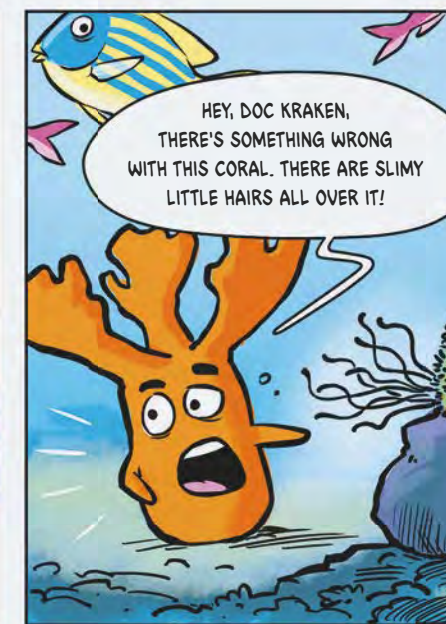
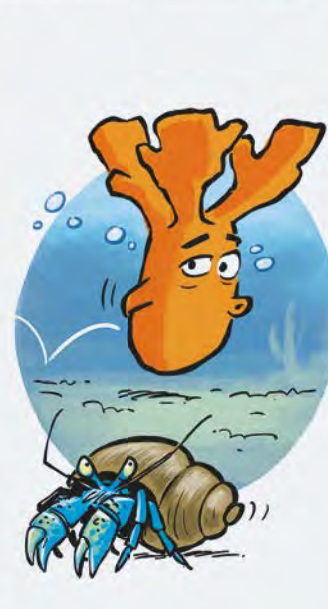
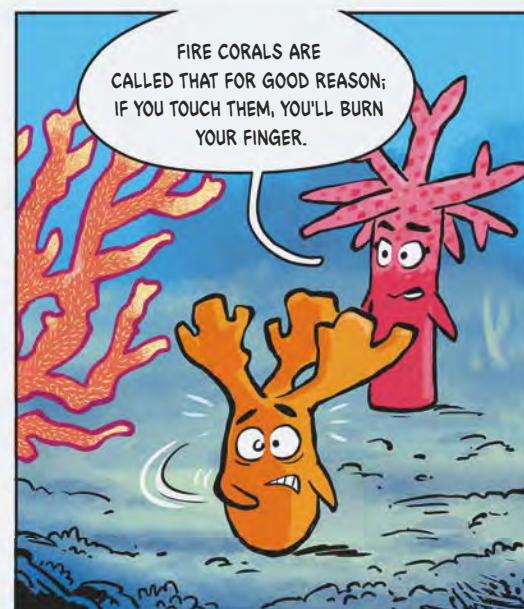
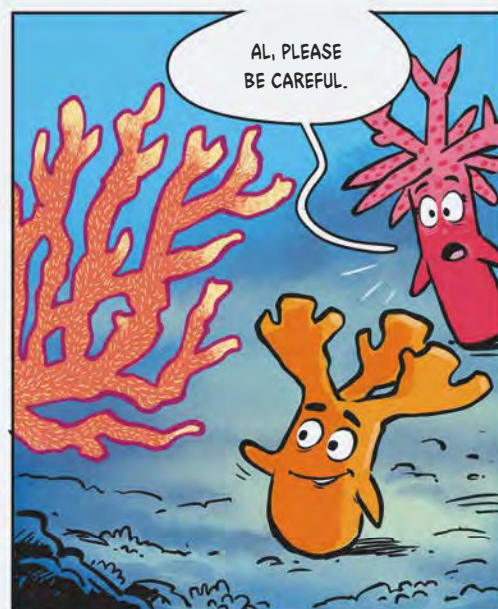
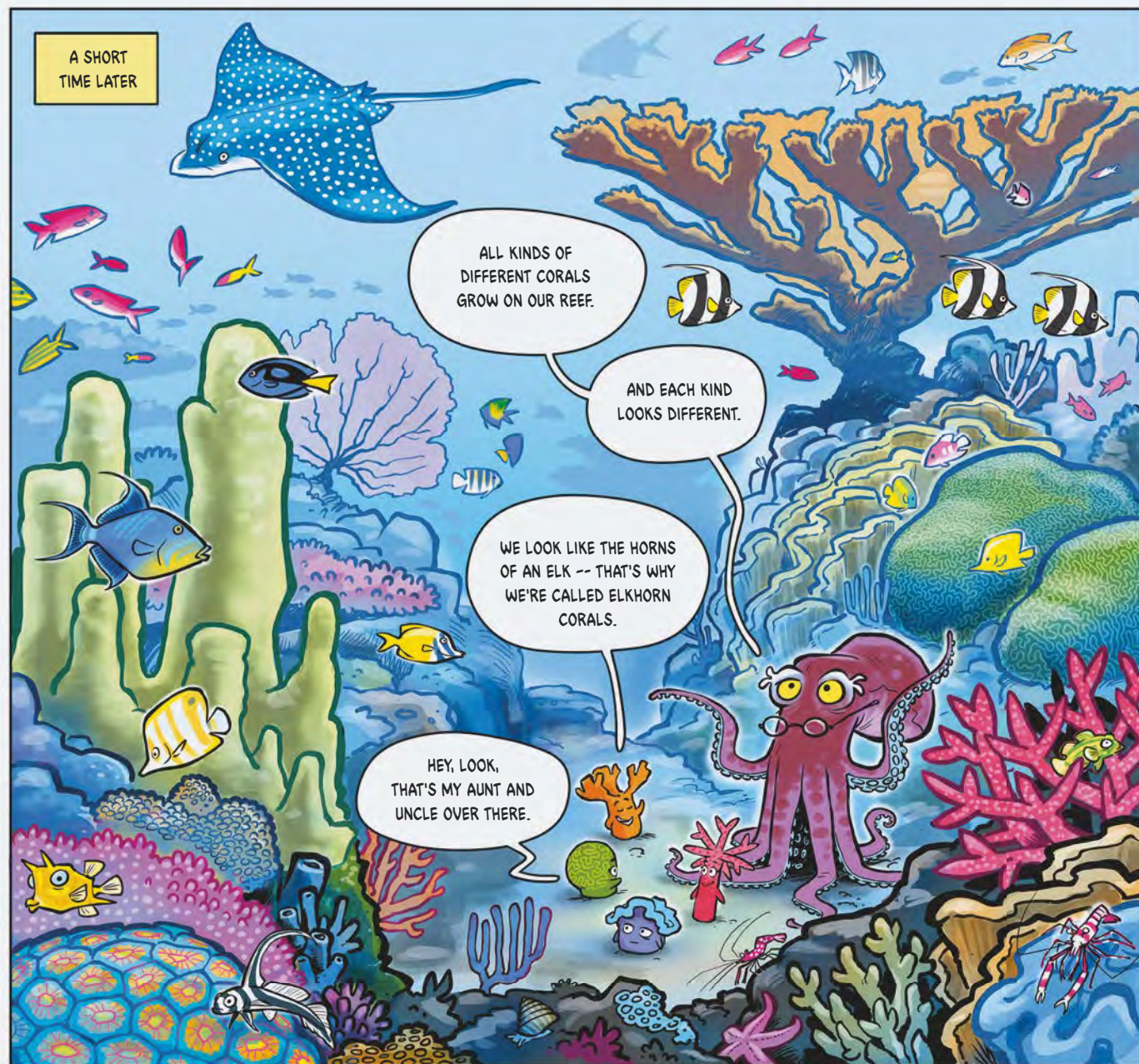


# WHO IS THE BEST BUILDER?

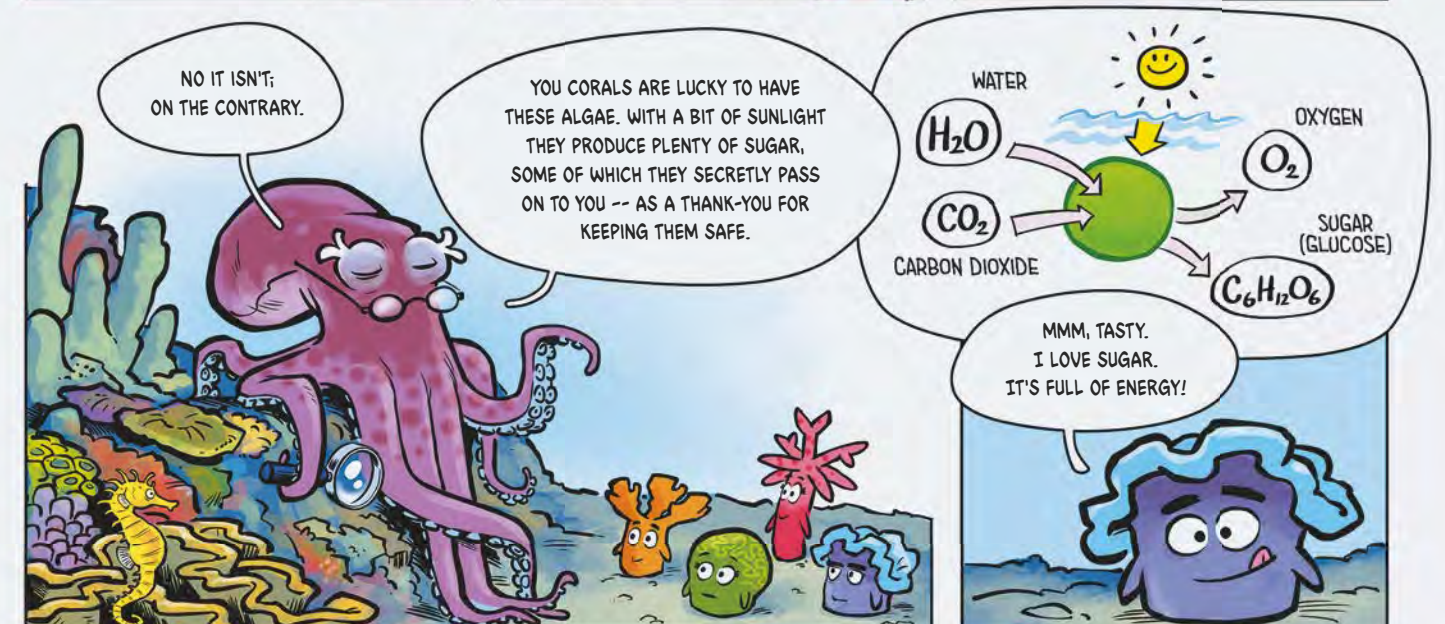
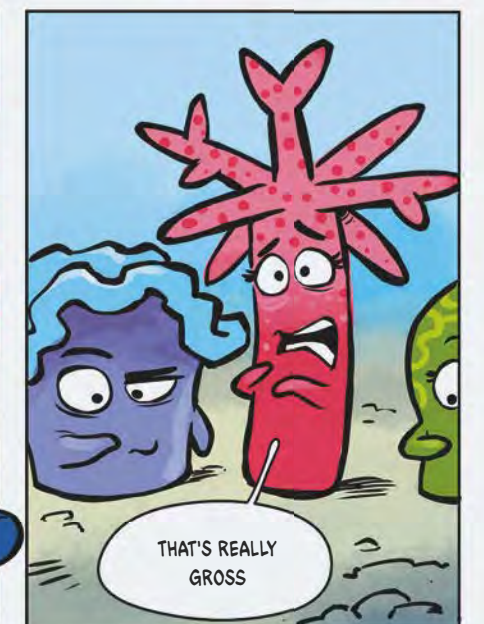
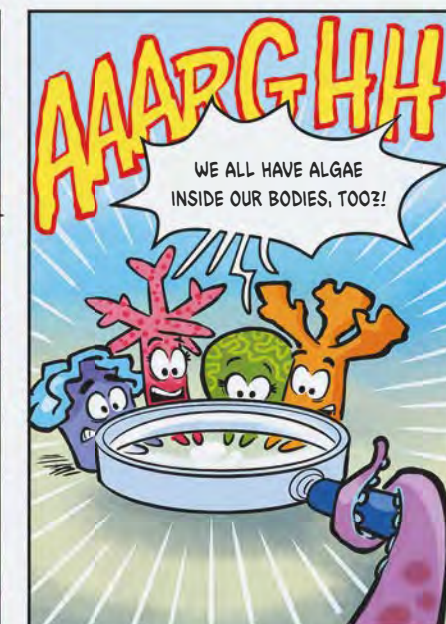
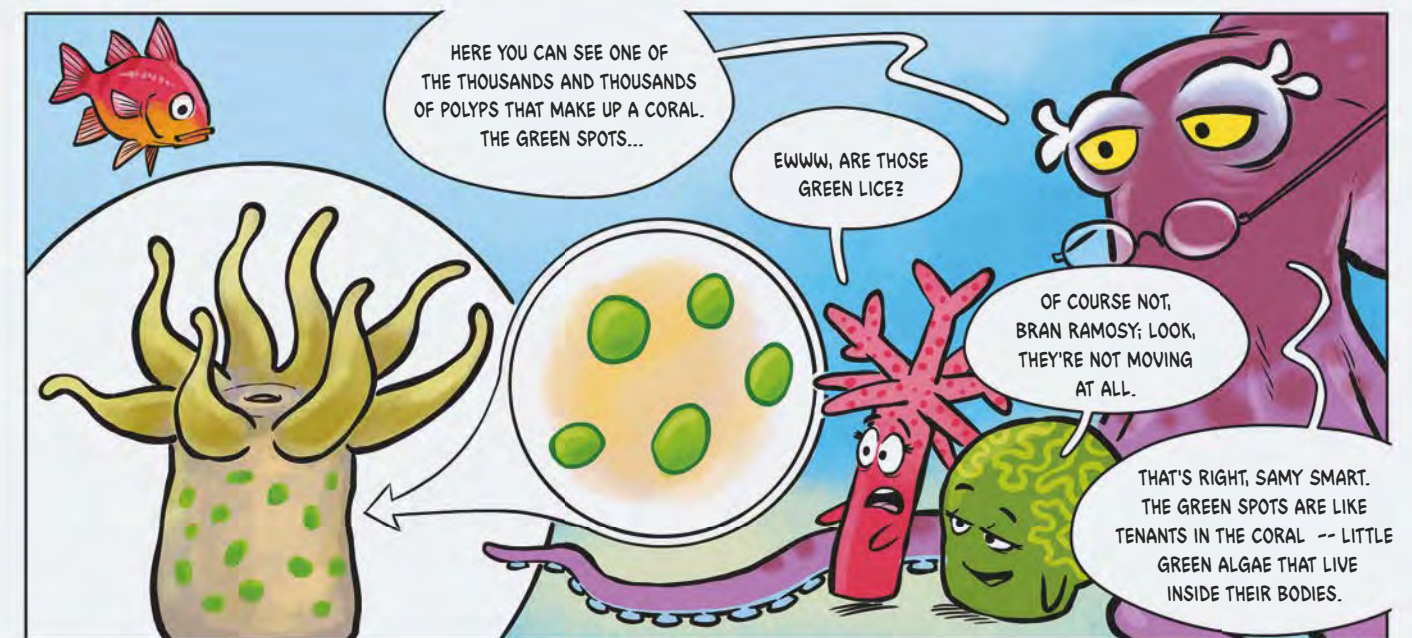
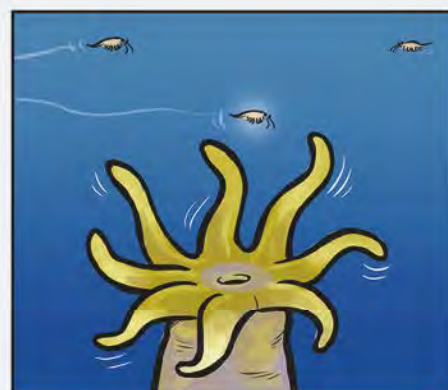
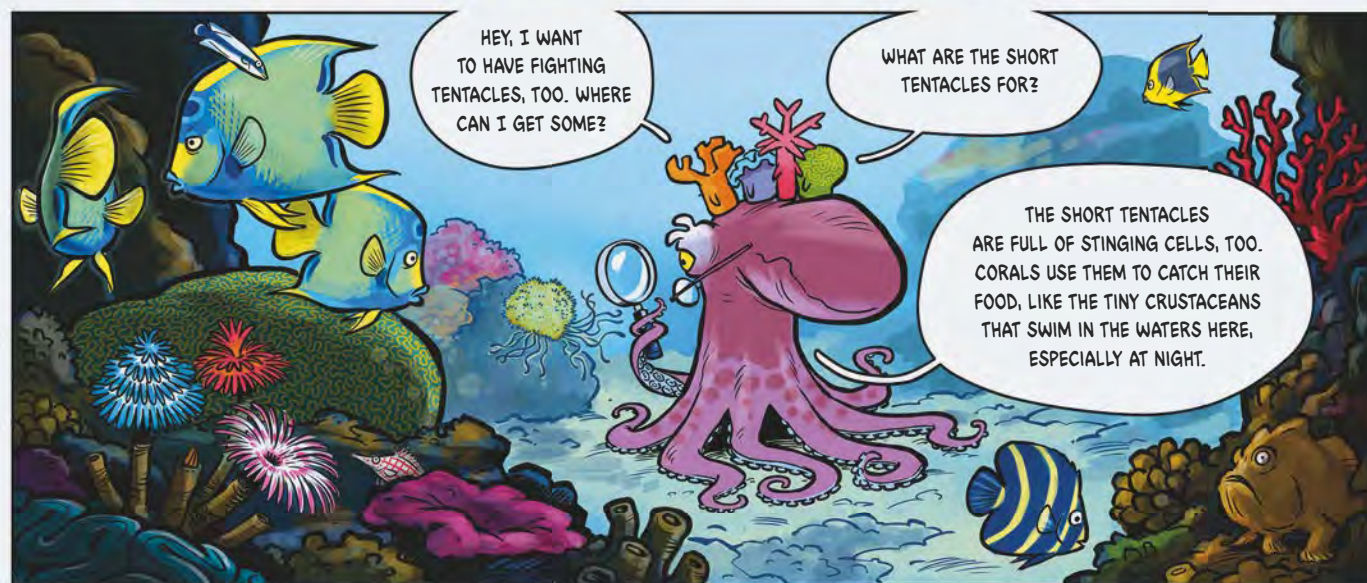
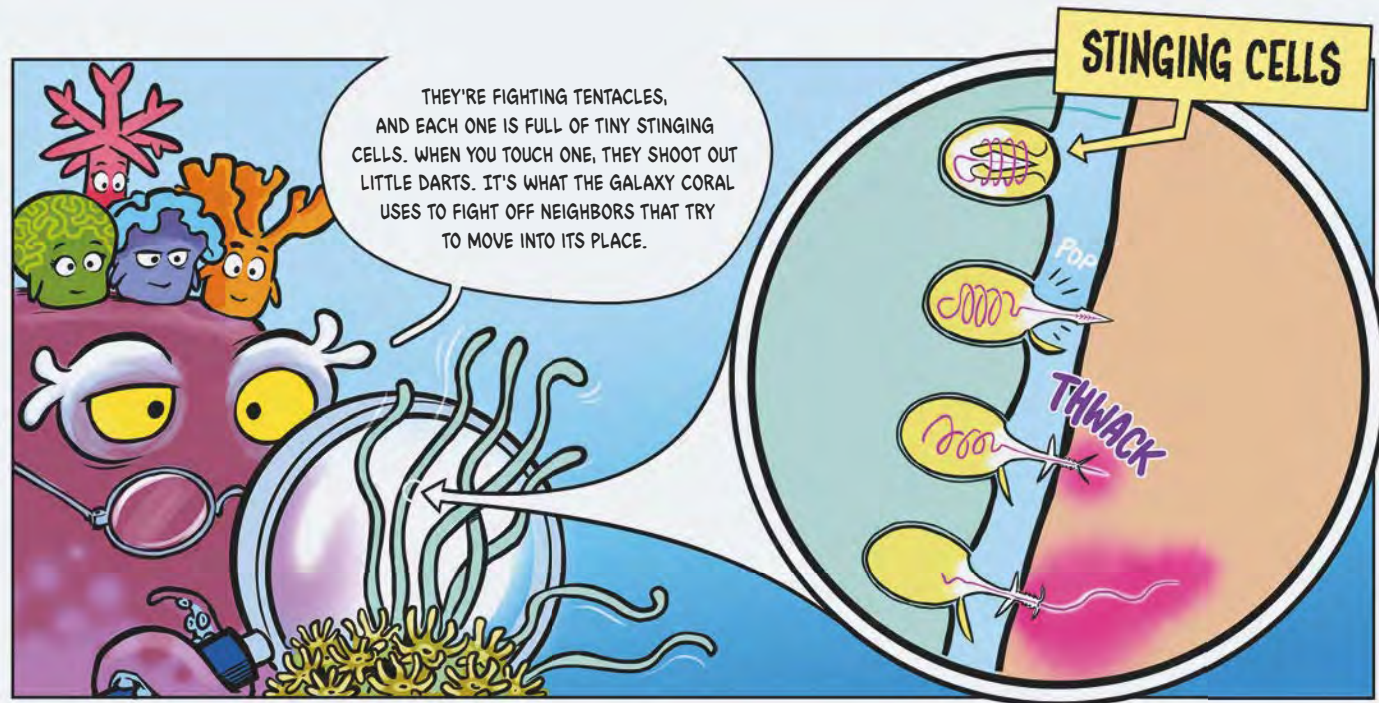
STORY: SINA LÖSCHKE, CARIN JANTZEN ILLUSTRATION: BERNHARD SPEH WWW.SECORE.ORG



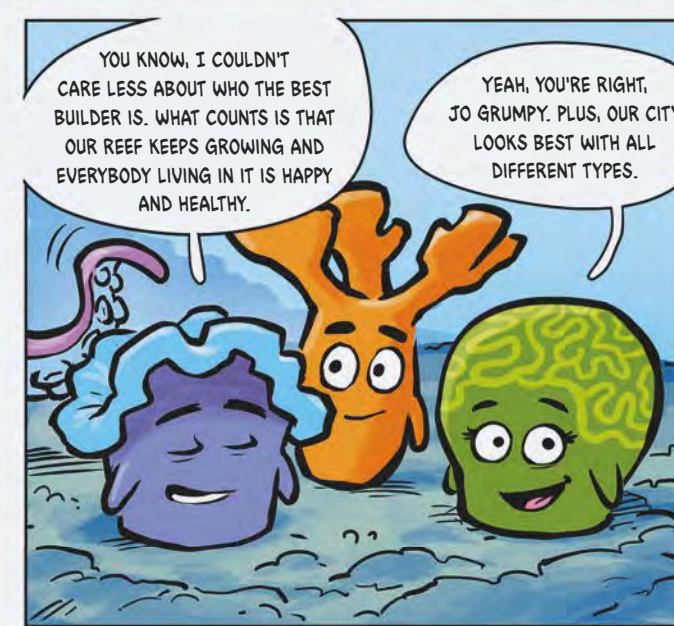
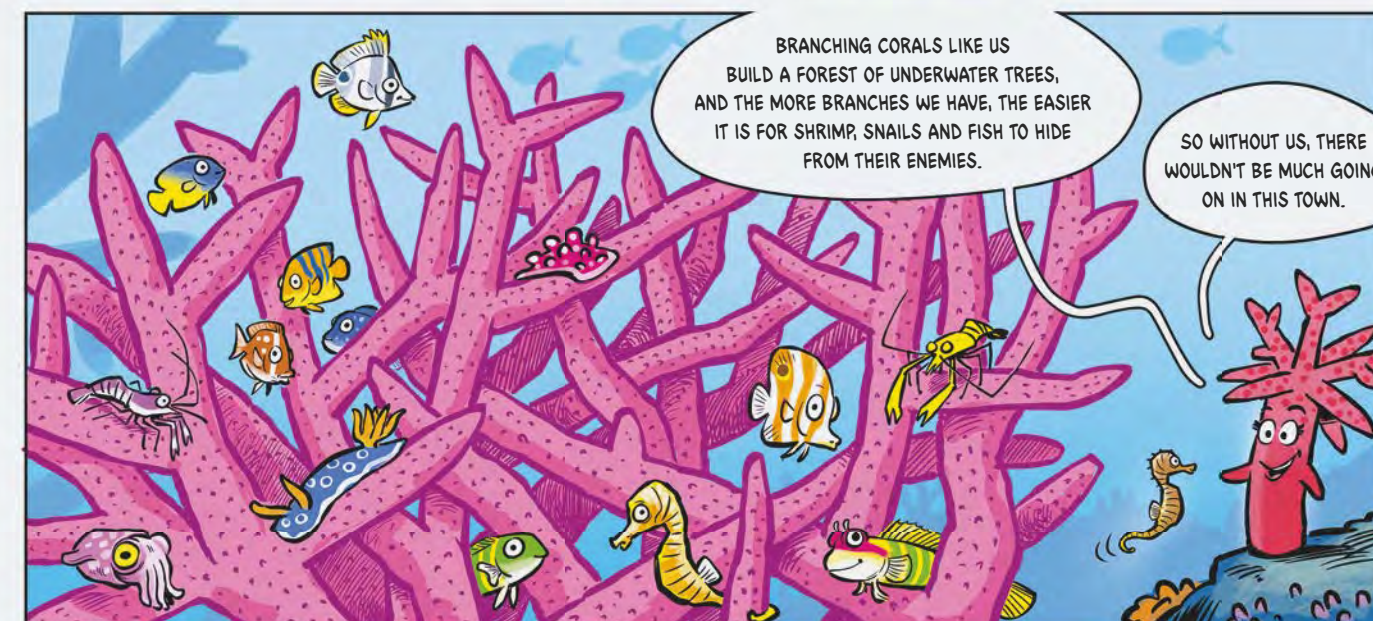
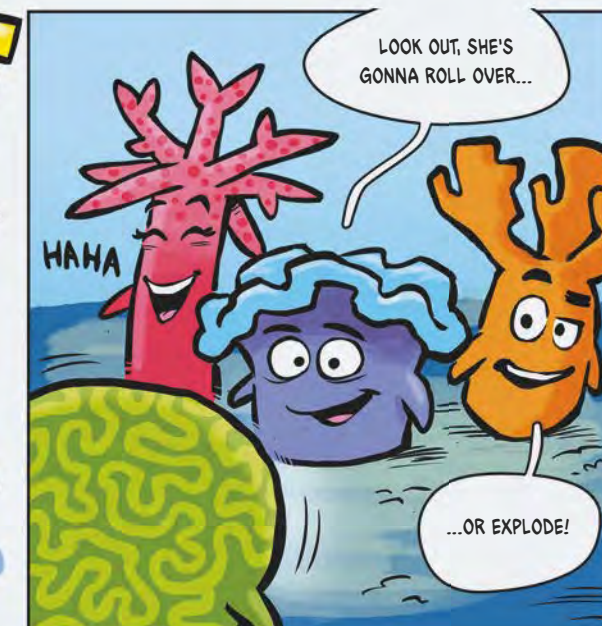
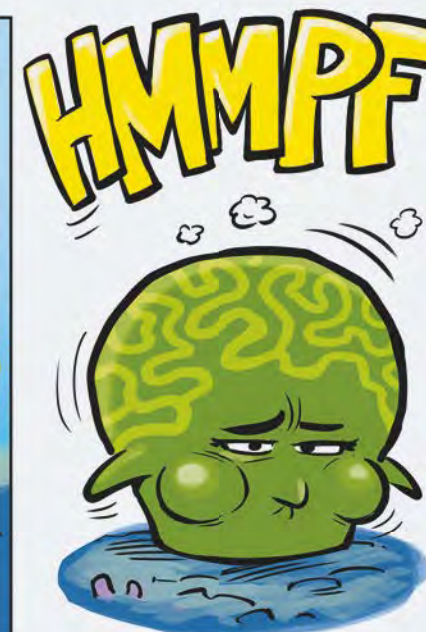
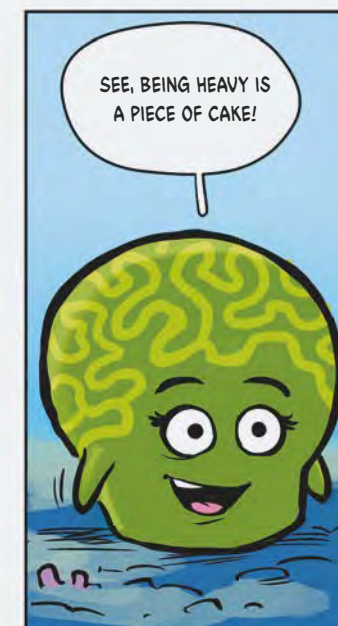
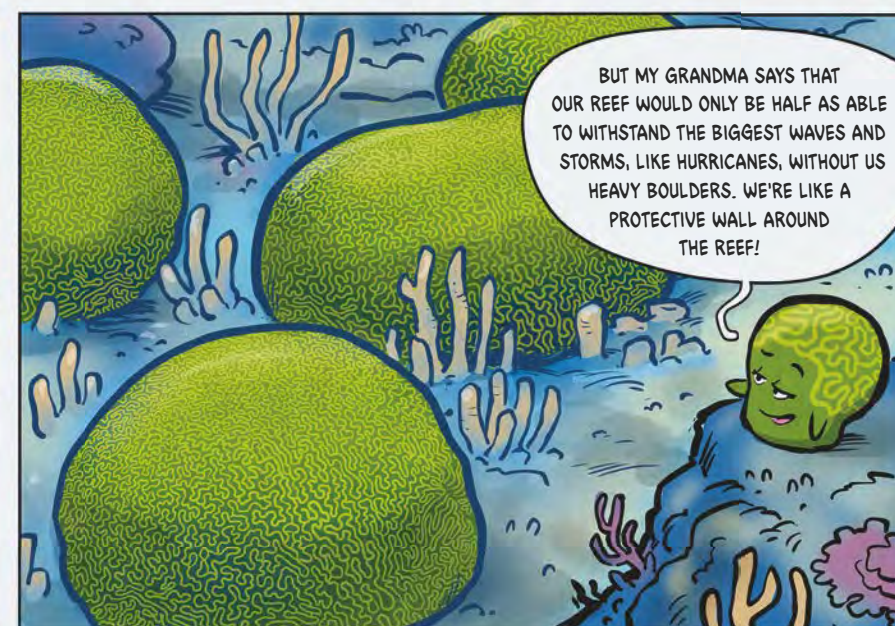
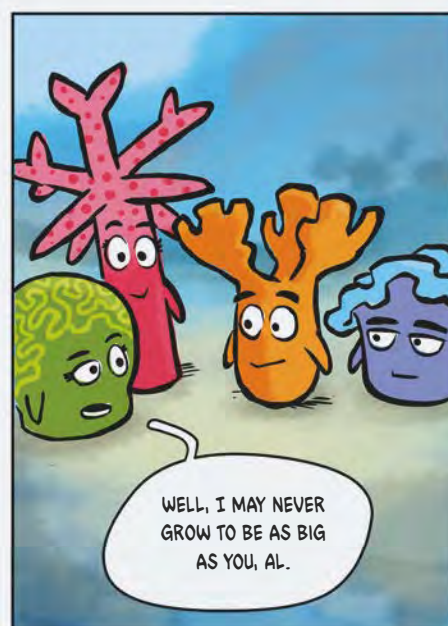
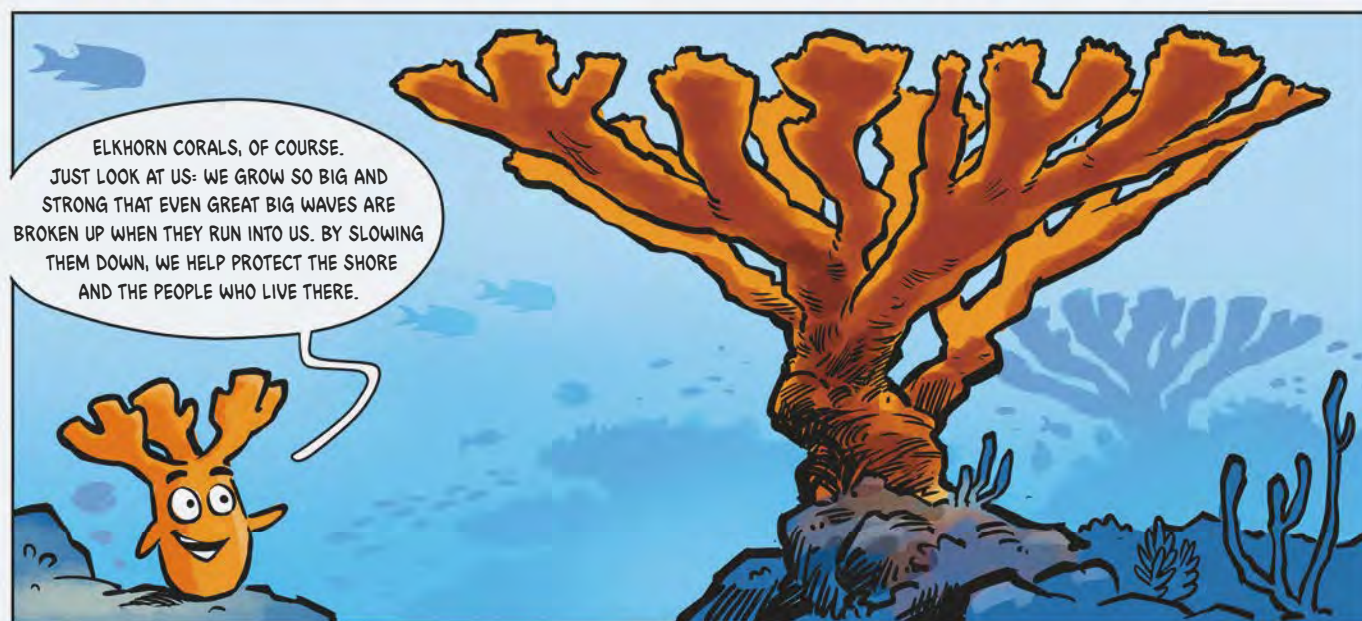
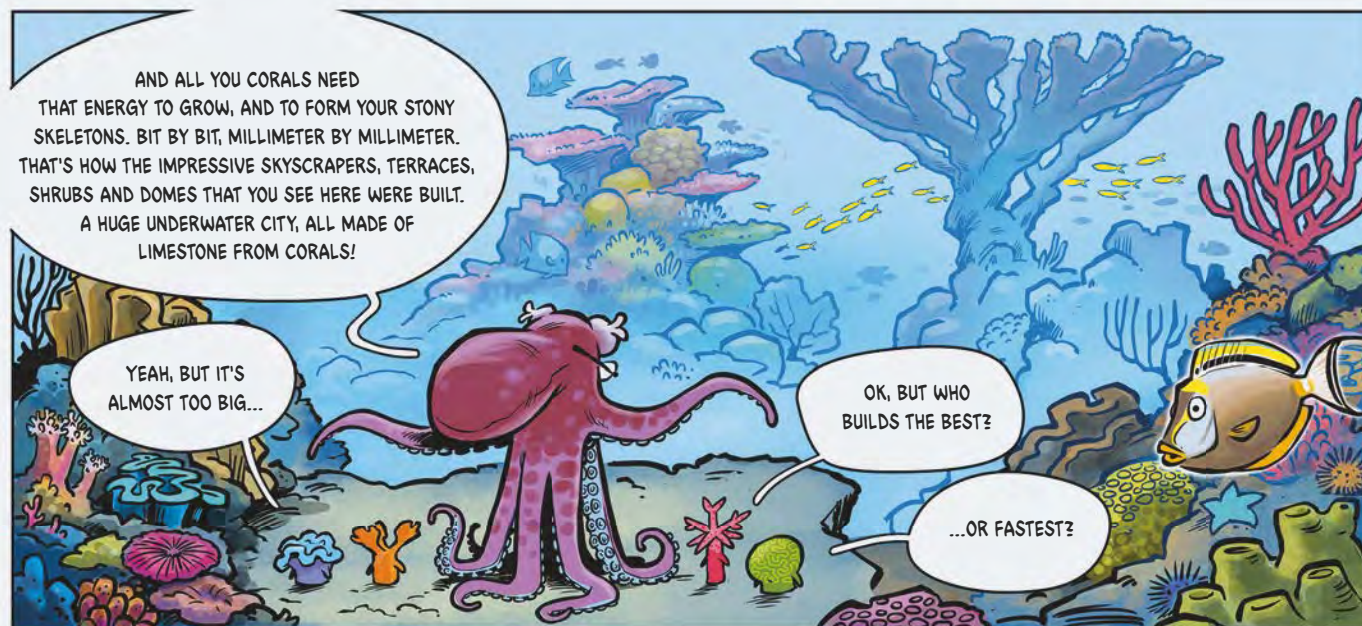














# DOC KRAKEN'S COUSINS

OCTOPUSES ARE A  
SMART ANIMALS WHO  
CAN CLASS C

A cartoon-style illustration of an octopus with a light blue body and numerous white spots. It has large, expressive eyes and is shown from a side profile, facing right. The octopus is positioned in the upper right quadrant of the page.

ELKHORN CORALS GROW IN THE SUNLIGHT SHALLOW WATERS OF THE CARIBBEAN. THEY SHIELD THE COAST BY ABSORBING WAVE ENERGY WITH THEIR 'ANTLERS'. SOME DECADES AGO, THEY FORMED A PROTECTION BELT ALONG THE COASTLINE. TODAY, THERE ARE OFTEN ONLY SINGLE ELKHORN COLONIES LEFT AND THE SPECIES CAN BE FOUND ON THE RED LIST OF ENDANGERED SPECIES. DO YOU THINK THEIR 'ANTLERS' LOOK LIKE THE ONES OF A MOOSE?

# STONY CORALS BUILD UP THE REEFS

# THE MIGHTIEST ARCHITECTS

A cartoon illustration of two yellow fish with large eyes swimming in the water. To their right is a large, red, branching coral structure that has a human-like face with a wide smile. The coral is growing out of a dark, rocky base with some green seaweed. The background is a solid light blue.

# SCHEDULED OFFSPRING

FOR WELL-STUDIED CORAL SPECIES, SCIENTISTS MAY BE ABLE TO PREDICT THE TIMING OF CORAL SPAWNING ALMOST TO THE MINUTE. TO SYNCHRONIZE THEIR SPAWNING, CORALS ARE GUIDED BY THE TEMPERATURE DURING A YEAR TO SET THE MONTH, THE LUNAR CYCLE DURING A YEAR TO SET THE DAY, AND THE TIME AFTER SUNSET TO SET THE EXACT HOUR. FOR INSTANCE, THE ELKHORN CORALS ON CURAÇAO USUALLY START THEIR RENDEZVOUS AT 9:15PM ON THE DOT AND THEN SPAWN FOR ABOUT HALF AN HOUR.

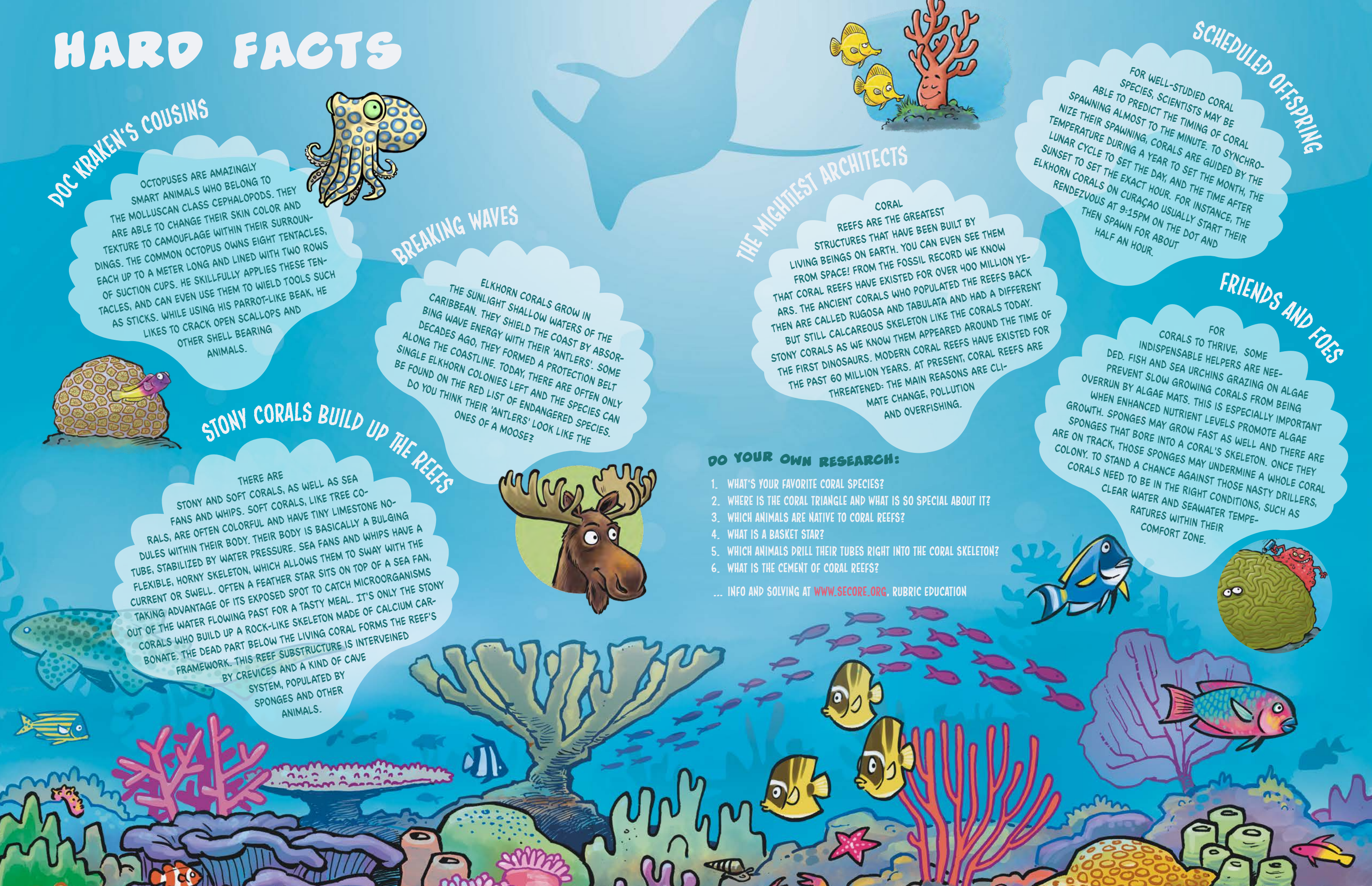
# FRIENDS AND FOES

FOR  
CORALS TO THRIVE, SOME  
INDISPENSABLE HELPERS ARE NEEDED. FISH AND SEA URCHINS GRAZING ON ALGAE  
PREVENT SLOW GROWING CORALS FROM BEING  
OVERRUN BY ALGAE MATS. THIS IS ESPECIALLY IMPORTANT  
WHEN ENHANCED NUTRIENT LEVELS PROMOTE ALGAE  
GROWTH. SPONGES MAY GROW FAST AS WELL AND THERE ARE  
SPONGES THAT BORE INTO A CORAL'S SKELETON. ONCE THEY  
ARE ON TRACK, THOSE SPONGES MAY UNDERMINE A WHOLE CORAL  
COLONY. TO STAND A CHANCE AGAINST THOSE NASTY DRILLERS,  
CORALS NEED TO BE IN THE RIGHT CONDITIONS, SUCH AS  
CLEAR WATER AND SEAWATER TEMPERATURES WITHIN THEIR  
COMFORT ZONE.

## DO YOUR OWN RESEARCH:

1. WHAT'S YOUR FAVORITE CORAL SPECIES?
2. WHERE IS THE CORAL TRIANGLE AND WHAT IS SO SPECIAL ABOUT IT?
3. WHICH ANIMALS ARE NATIVE TO CORAL REEFS?
4. WHAT IS A BASKET STAR?
5. WHICH ANIMALS DRILL THEIR TUBES RIGHT INTO THE CORAL SKELETON?
6. WHAT IS THE CEMENT OF CORAL REEFS?

... INFO AND SOLVING AT [WWW.SCORE.ORG](http://WWW.SCORE.ORG), RUBRIC EDUCATION

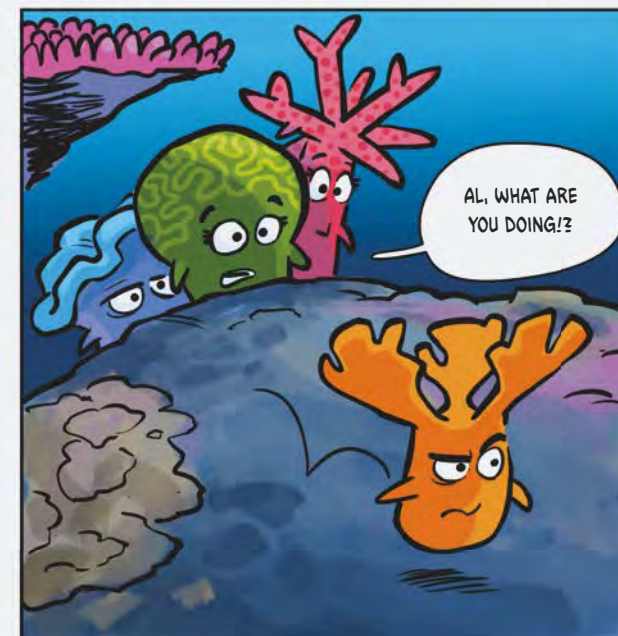
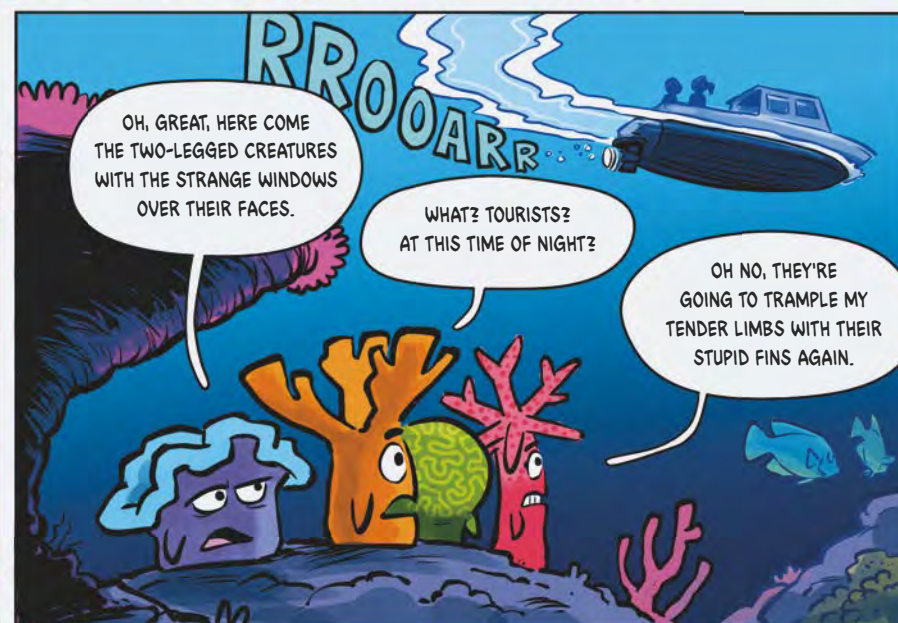
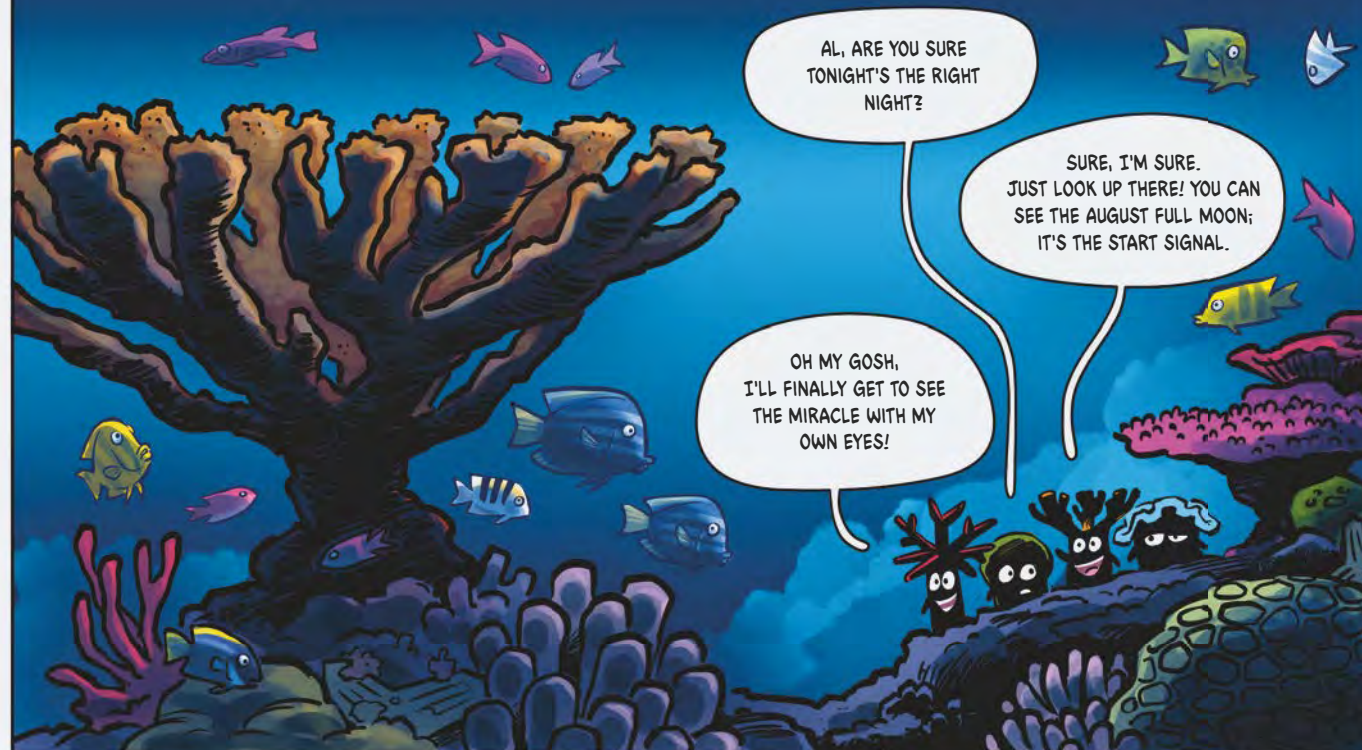




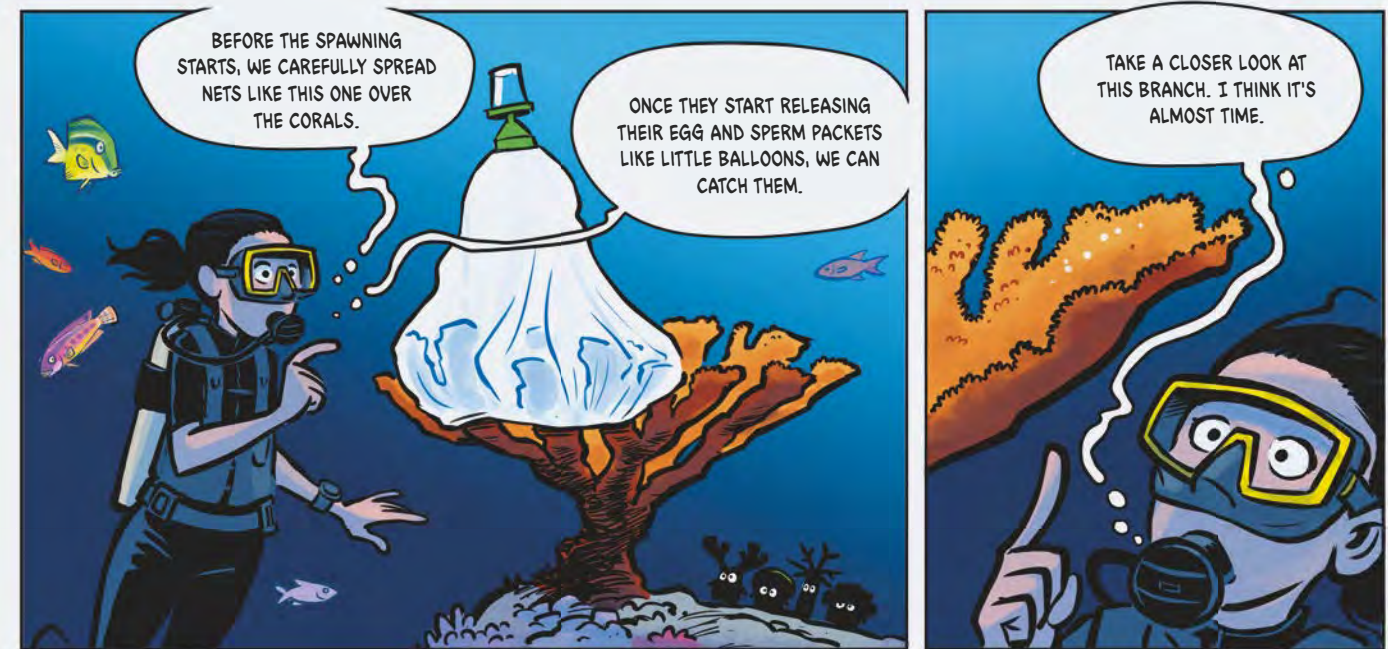
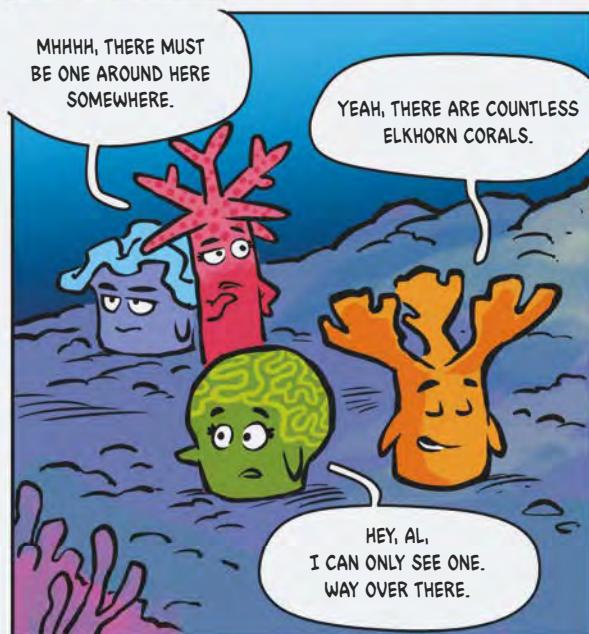
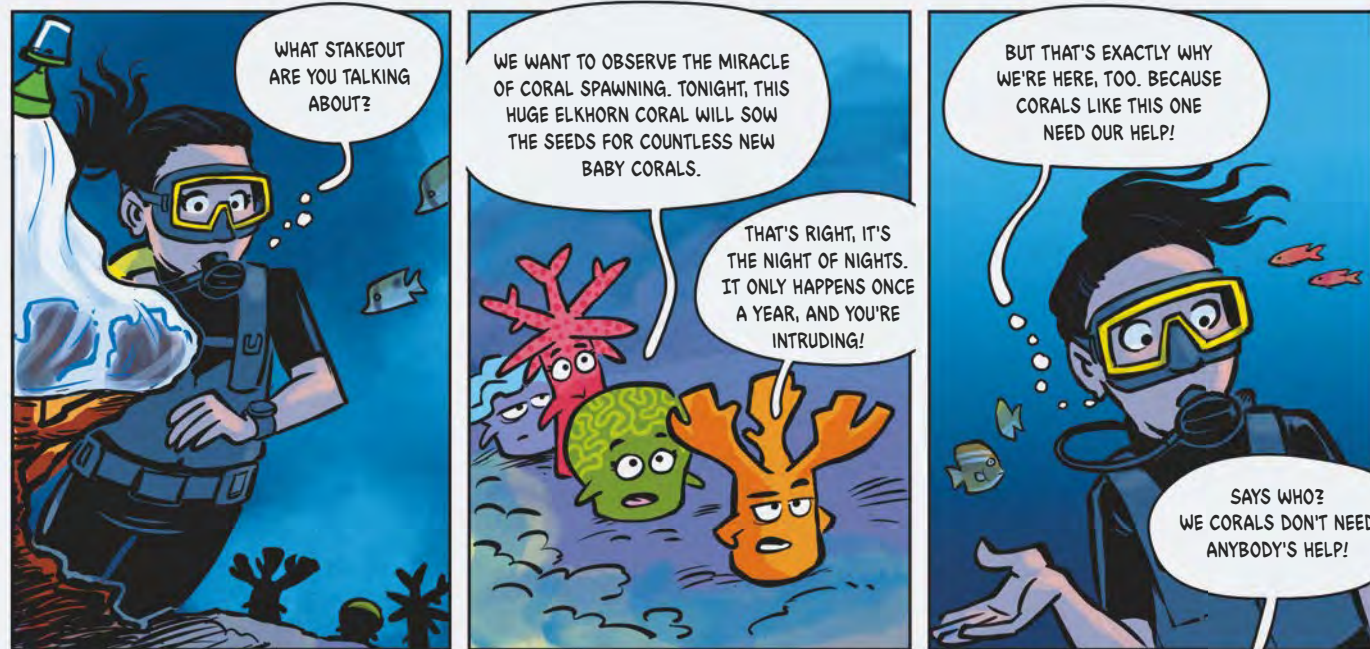
# UNDER AUGUST'S FULL MOON

STORY: SINA LÖSCHKE, CARIN JANTZEN - ILLUSTRATION: BERNHARD SPEH - WWW.SECORE.ORG

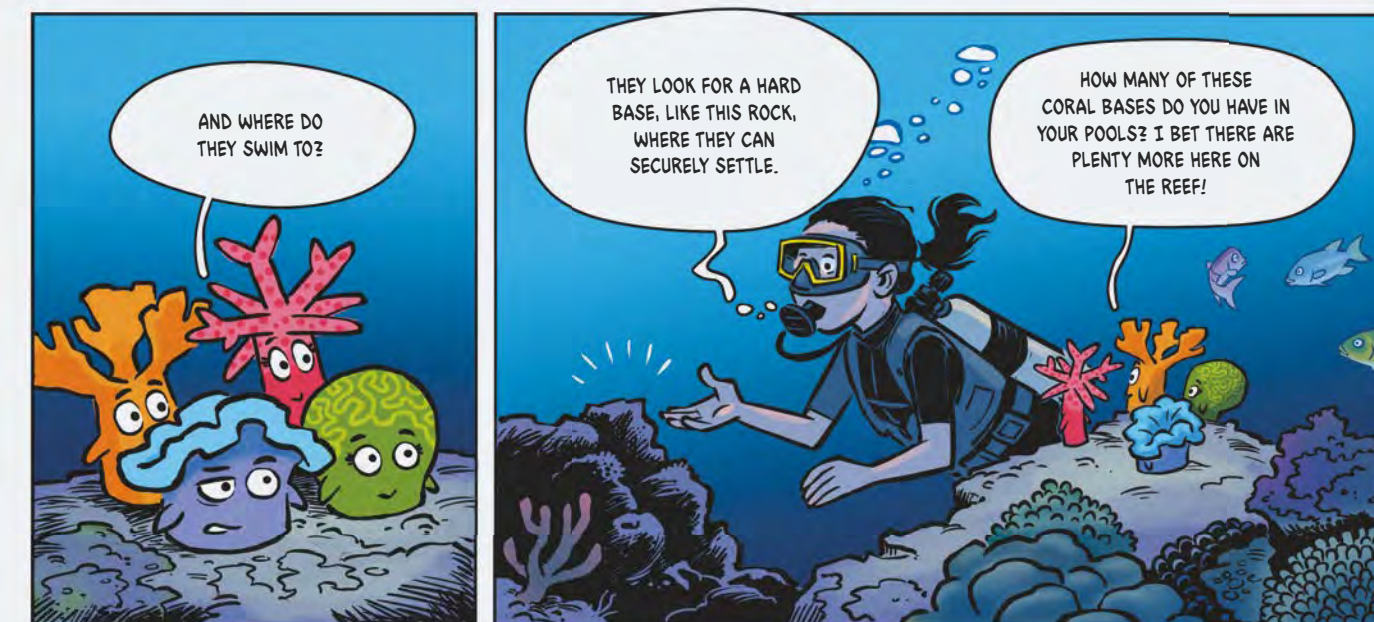
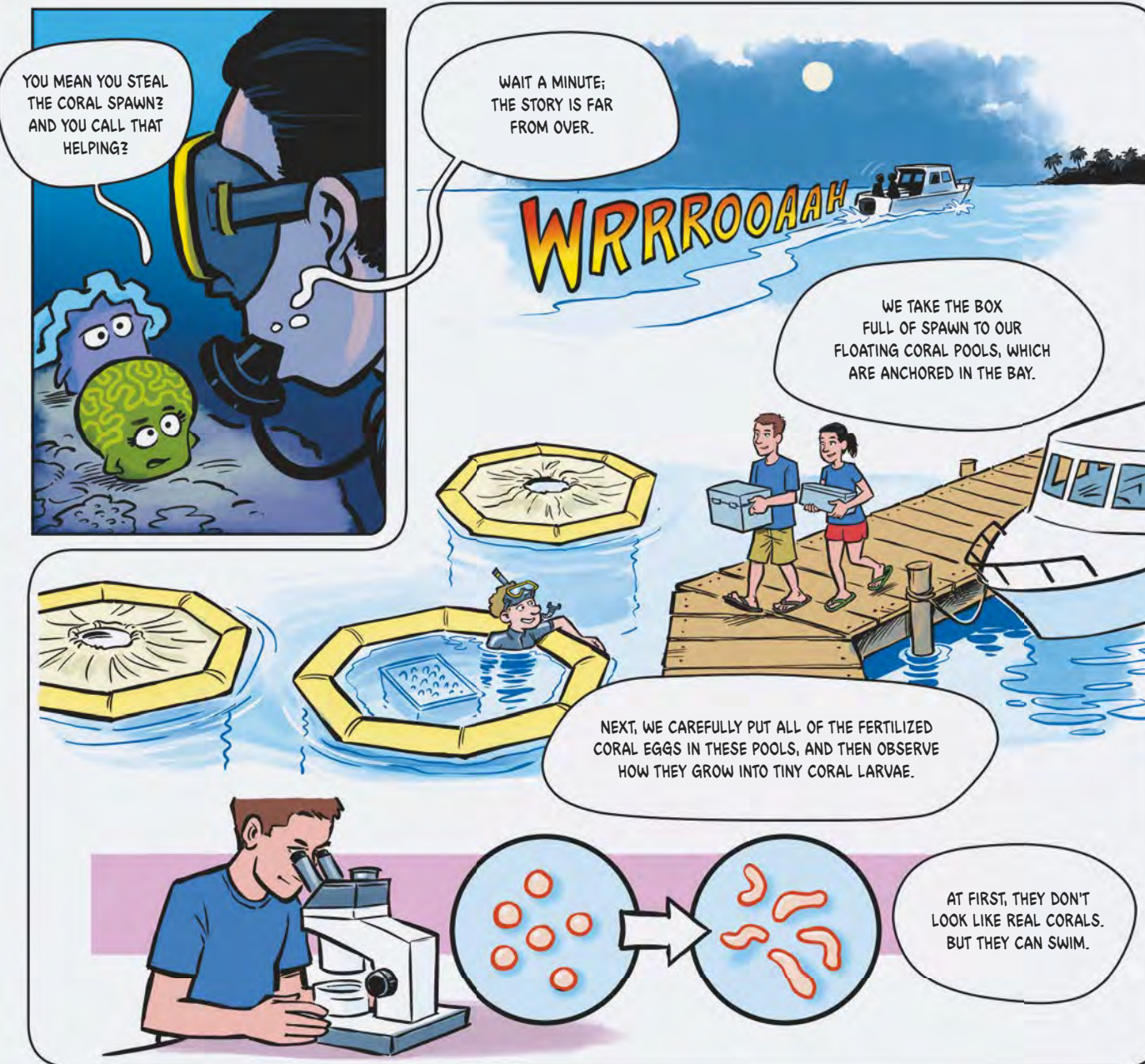
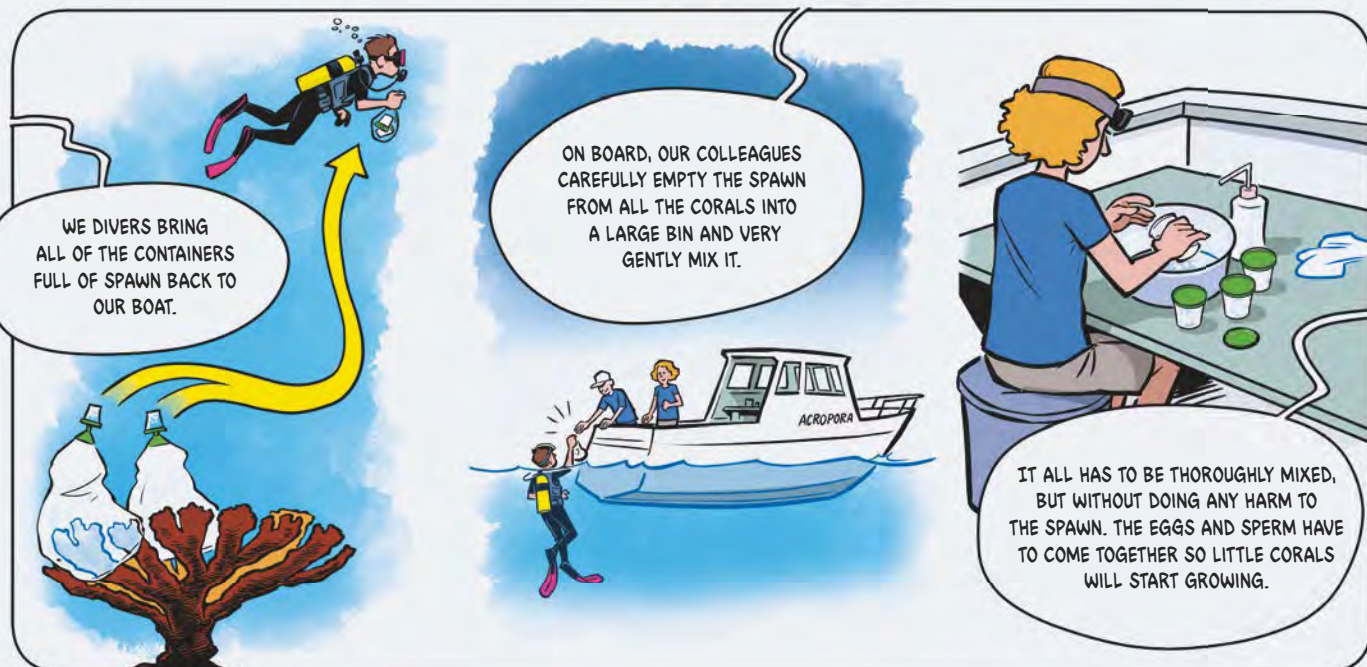
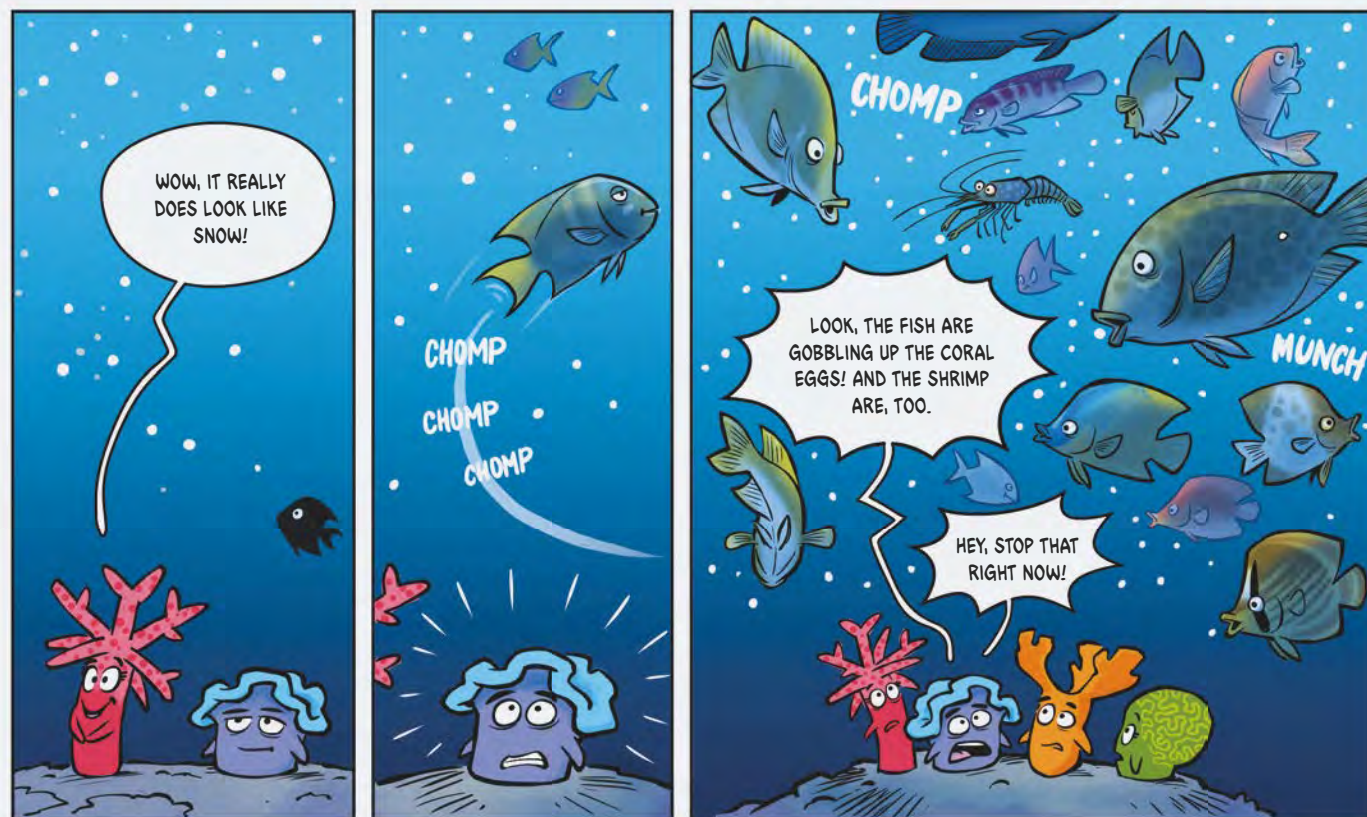
TOWABONGA REEF, NEAR A SMALL TROPICAL ISLAND. IT'S 9 P.M. ON THE NIGHT OF THE FULL MOON IN AUGUST.



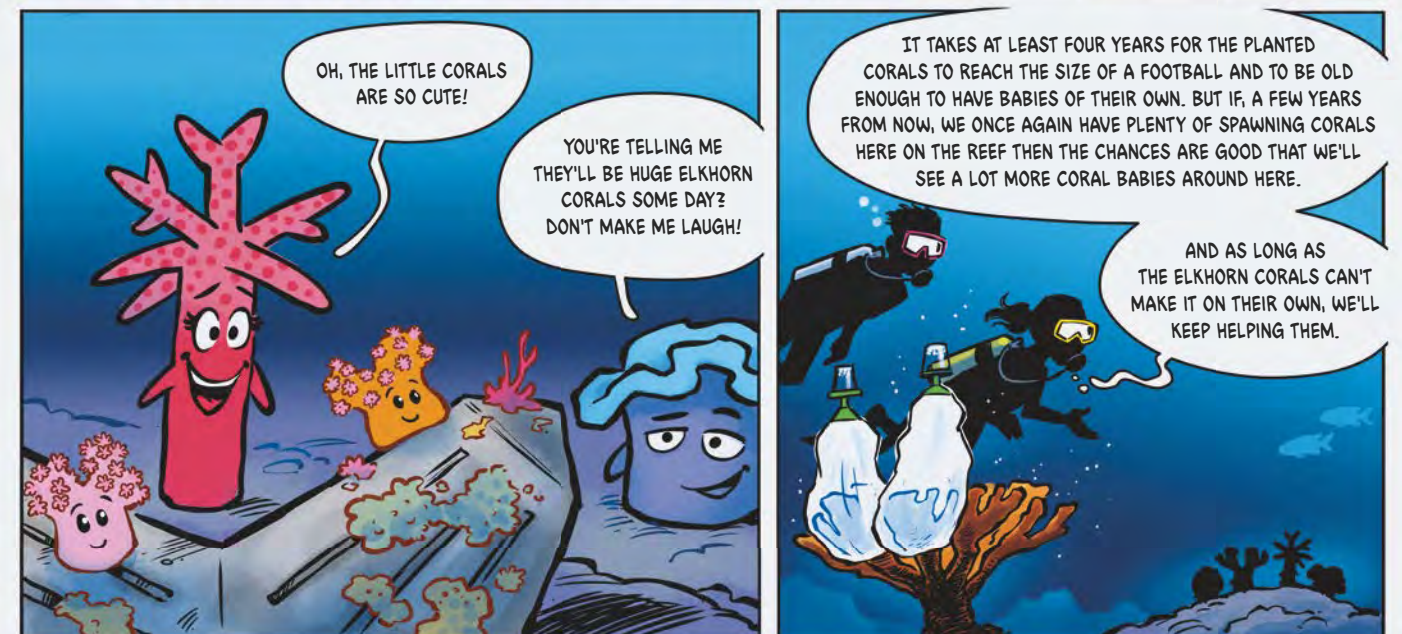
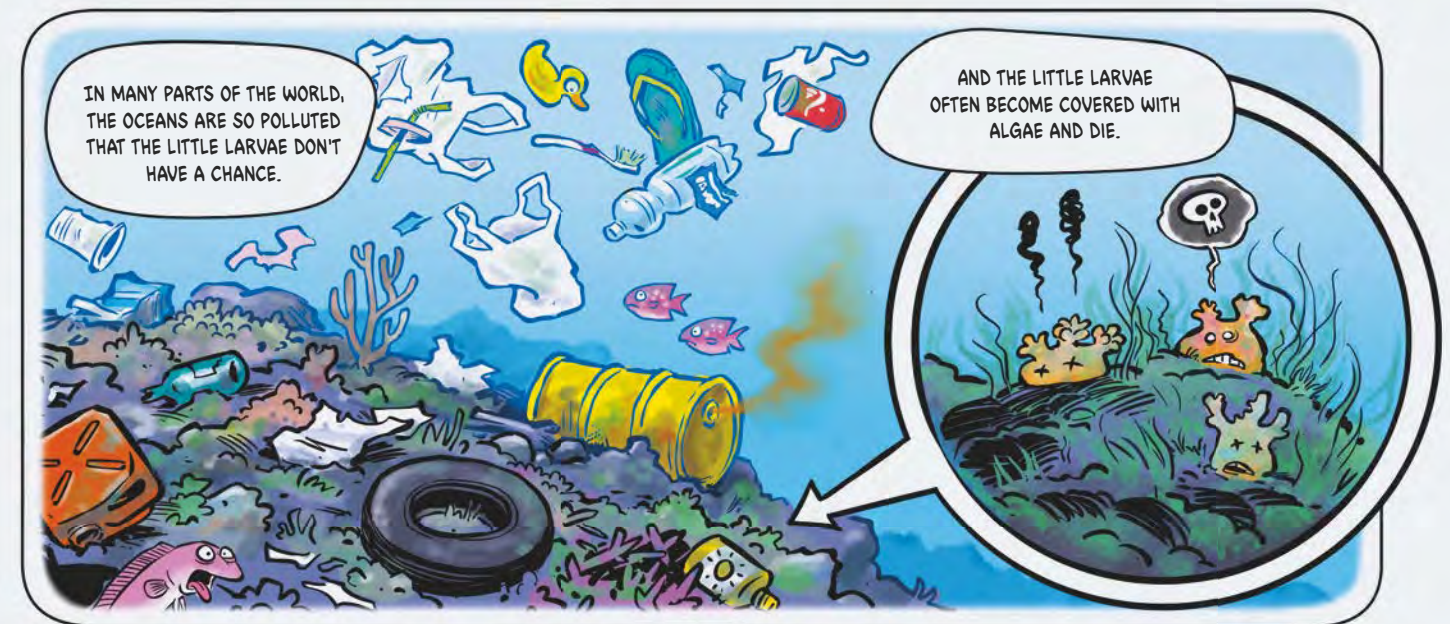
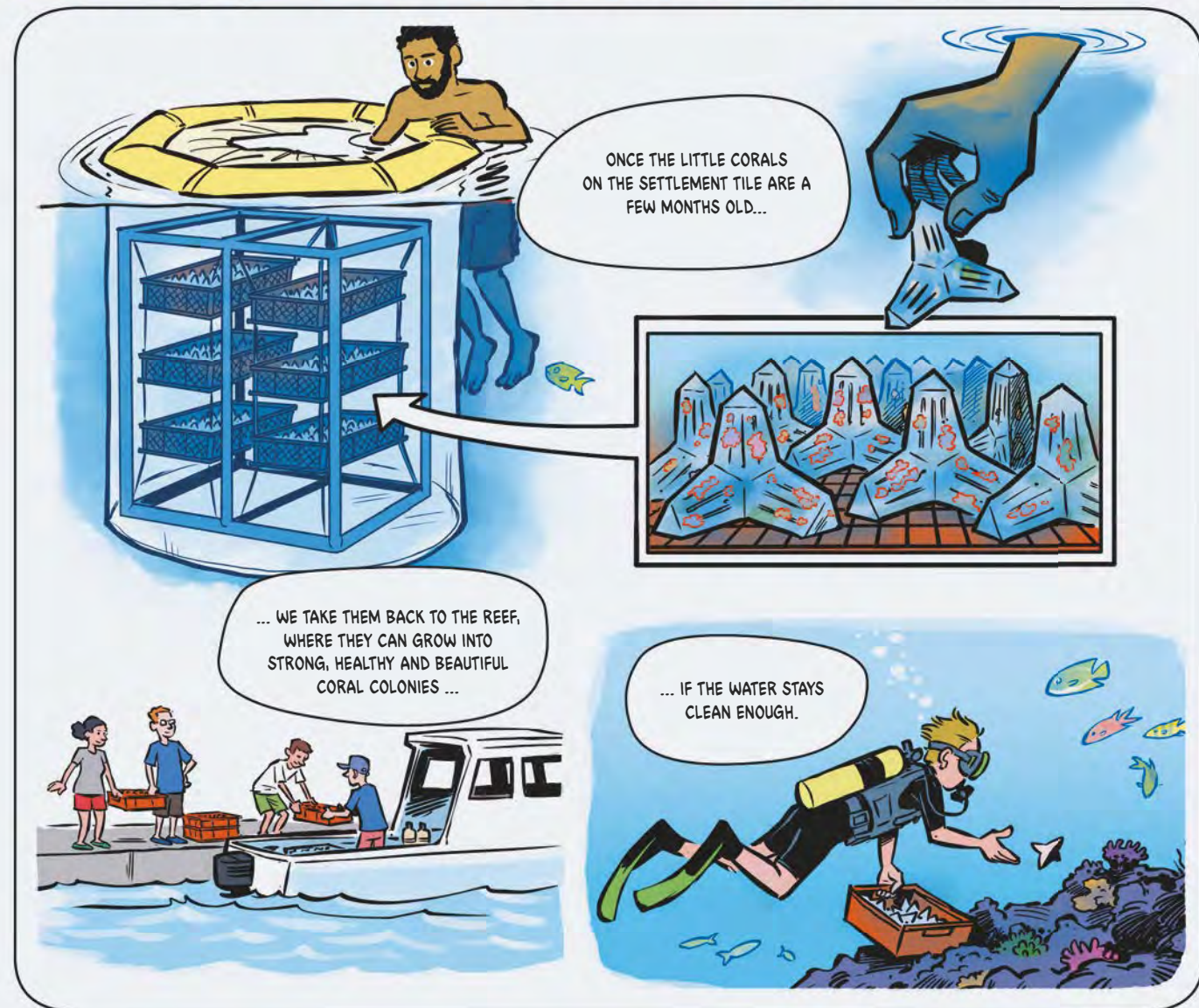
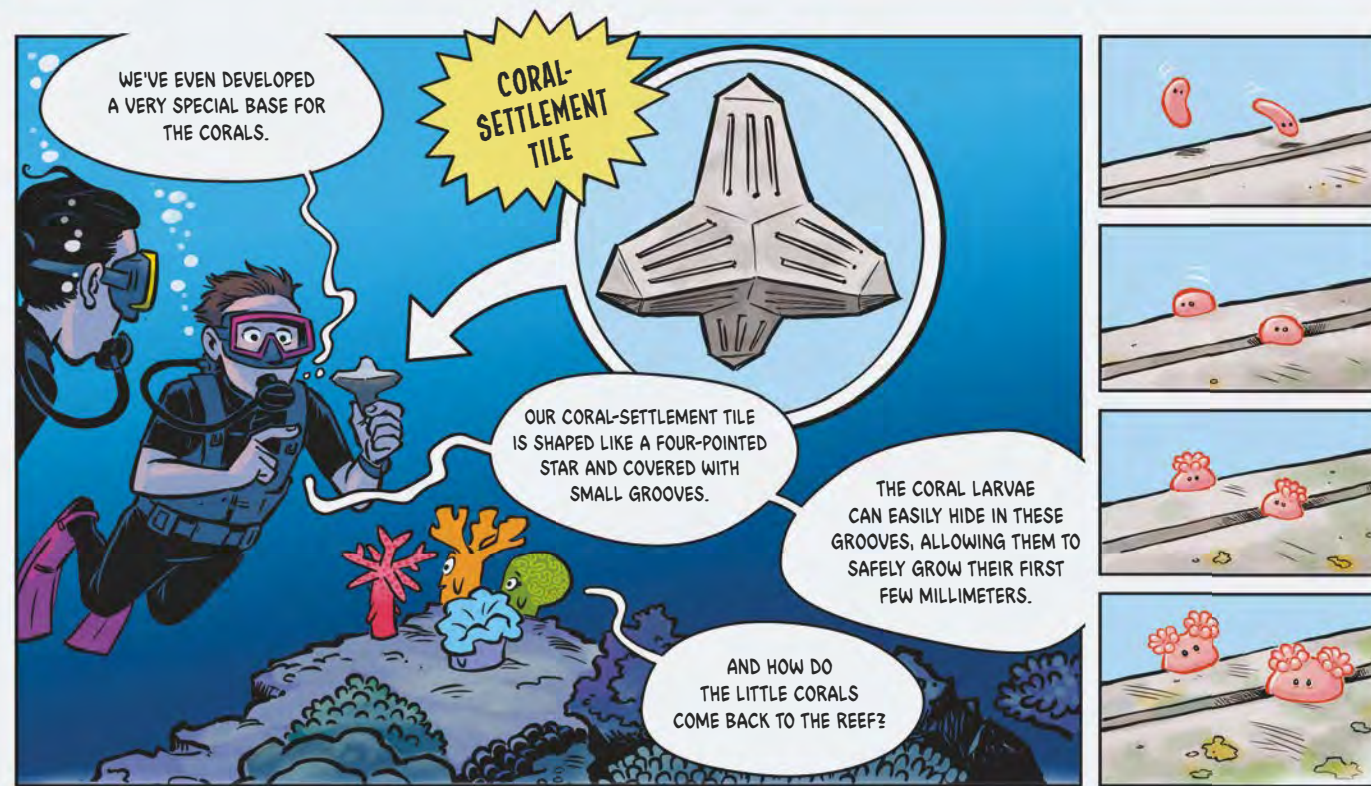




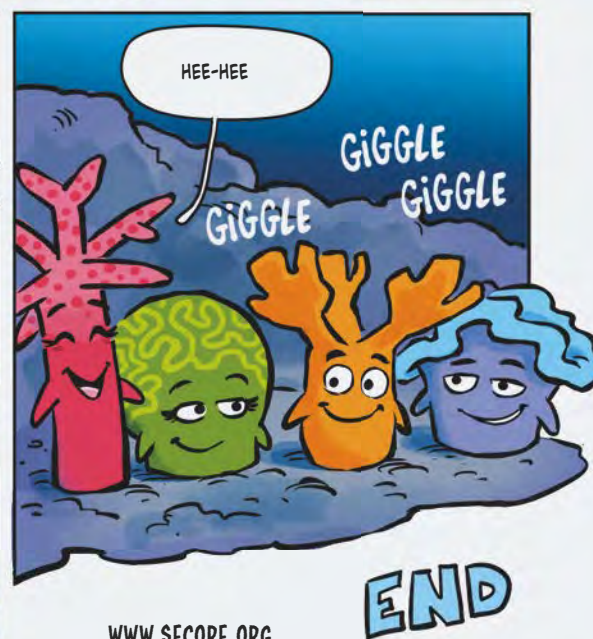
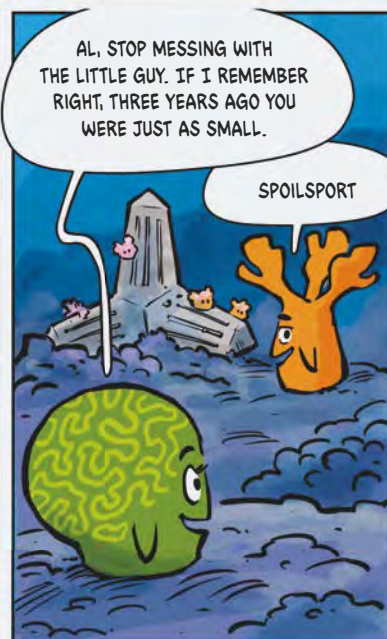
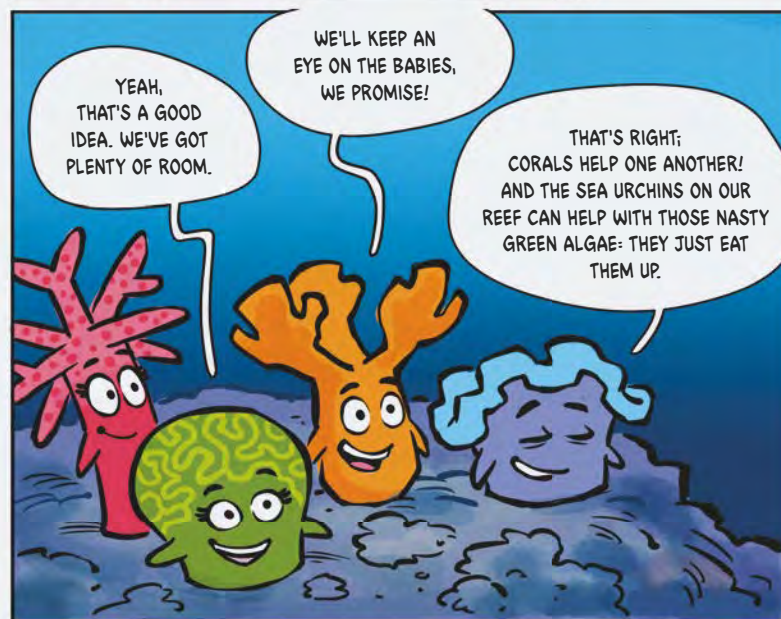












WWW.SECORE.ORG

END



## IMPRESSUM

COPYRIGHT WITH SECORE INTERNATIONAL INC.  
 IDEA: CARIN JANTZEN  
 TEXT: SINA LÖSCHKE, CARIN JANTZEN  
 ILLUSTRATION: BERNHARD SPEH; WWW.SPEHZIES.DE  
 COVER: NELE SCHÜTZ USING AN ILLUSTRATION BY BERNHARD SPEH  
 LAYOUT: NELE SCHÜTZ DESIGN

SECORE INTERNATIONAL, INC.  
 4673 NORTHWEST PARKWAY HILLIARD  
 OHIO, 43026 USA

INFO@SECORE.ORG  
 WWW.SECORE.ORG

## COMIC PUBLICATION DISCLAIMER

THIS PUBLICATION (CORAL HEROES, ADVENTURES ON THE REEFS OF TOWABONGA) IS A COPYRIGHTED PUBLICATION OF SECORE INTERNATIONAL, INC. IT IS PUBLISHED FOR EDUCATIONAL PURPOSES TO PROVIDE INFORMATION ON THE VALUE, IMPORTANCE AND THE THREATS TO CORAL REEFS AROUND THE WORLD. IT IS A FREE PUBLICATION AND IS WIDELY DISTRIBUTED WITHOUT COST. THIS PUBLICATION IS AVAILABLE WITHOUT COST ON THE SECORE WEBSITE AT:

WWW.SECORE.ORG, RUBRIC EDUCATION

THE PUBLICATION IS INTENDED FOR EDUCATION ONLY AND MAY NOT BE USED FOR COMMERCIAL PURPOSES. CONTENT OF THE PUBLICATION MAY NOT BE ALTERED OR USED IN PARTS, NOR MAY BE ANY PARTS EXTRACTED WITHOUT THE PERMISSION OF SECORE INTERNATIONAL, INC.



SECORE'S LEAD PARTNER:



CORAL HEROES EDUCATION PARTNER:



# CORAL

LEARN MORE AT [WWW.CORALMAGAZINE.COM](http://WWW.CORALMAGAZINE.COM)



[WWW.SECORE.ORG](http://WWW.SECORE.ORG)