

WE, THE REEF

This resource has been produced for About Us as part of UNBOXED: Creativity in the UK.

This interdisciplinary resource brings together creative writing, literature and science: teachers can use it in the classroom to explore literary techniques in scientific contexts, and to explore the creativity behind scientific themes. Older students can use the resource in their own time to further their reading and generate ideas for poems of their own.

CURRICULUM LINKS

England:

Science: Animals Including Humans (Y4), Living Things & Their Habitats (Y4–6), Material Cycles & Energy, Interactions & Interdependencies (KS3), Ecosystems,

Photosynthesis (KS4)
English: Writing & Reading Composition
Key Stages: KS2, KS3, KS4

Northern Ireland:
Language & Literacy: Writing & Reading
The World Around Us: Interdependence, Place
Key Stages: KS2, KS3, KS4

Scotland:

Languages: Literacy & English – Writing & Reading
Sciences: Planet Earth
Levels: Second Level, Third/Fourth Level, Senior Phase

Wales:

Languages, Literacy & Communication: Literature
Science & Technology: Being Curious, The World Around Us
Progression Steps: PS3, PS4, PS5

AGES 7–16

Topics

- symbiosis
- zooxanthellae algae and coral reefs
- climate change
- collaboration
- improvisation
- sustainability and our future
- wellbeing and resilience

Literary features

- ecopoetry
- voice
- personification

This resource looks at a new poem and related material by poet Caleb Parkin, comedy improviser Jane Hills, and marine biologist Isla Keesje Davidson. The poem, 'We, The Reef', explores the relationship between algae and coral by imagining a conversation with them. The resource contains a step-by-step guide for young people to create their own poem in response.



GETTING STARTED

The poem you are about to read is all about the relationship between coral reefs and algae. Coral and algae have a symbiotic relationship. Have you heard this word before? What do you think it means?

Can you think of any other symbiotic relationships in nature, where two organisms are working in close collaboration?

WE, THE REEF

two recorded Zoom conversations

I. Human / Coral

What makes you happy?

A day full of sunshine,
cool waves. Not those hot,
muggy, sea-salt-heavy days
that take so much energy.
Then, I don't spend time
with Algae
and we don't get on.
I like to reach out,
snack all day.

What are you worried about?

The reef is too intense.
Family ties we've had
for 10,000 or millions
of years are heated
to their limits.

We can't live
without each other
but can't face being
together
anymore.

How do you see your future?

That depends.
We, The Reef,
are willing to make
some changes: we're
dynamic, adaptable.

If you would take
one step forward,
we could do the same.
But when it takes 10,000
years, polyp to Coral,
we need time: I like
to take my time.

II. Algae / Coral

*Usually in our relationship
I feel really held. Coral
is my safe space. But lately,
things have heated up,
so I've been out the house
more often. It's too hot,
too hot for me.*

*I don't think it's Coral's
fault, the wider
situation
in the world
has made things
stressful and then I
let out my toxins.*

*It's scary, the world
making us lose*

*and protect each other
and celebrate each other*

me hate you

it's cruel

Algae, it's really hard
to hear you say
I'm not there: I am
still here, trying
to protect you.
I want to hold you
lift you up to the light,
to what you can become.

I know this is bigger
than you, the way you
lash out, but your reaction
hurts. Pushing you out
is the only way
to survive that toxicity.

the very one we need when
we've learned to grow
through this world

and they're making
you hate me

and that's just cruel

together

FIRST THOUGHTS

Take a moment to read through the poem on your own. Now try reading it with a partner or a family member, each person taking on a different voice in the poem. What is the poem about? Does this seem like an unusual poem to you?

HOW WE MADE THIS POEM

'We, The Reef' is a collaboration between me – poet, Caleb Parkin – Jane Hills, a comedy improviser, and Isla Keesje-Davidson, a marine biologist. We wanted to show how different artforms and interests could connect to create something new.

Often, we hear about animals competing or eating each other. But not all relationships in nature are competitive: there are also various relationships where both organisms benefit, and these are called '**mutualistic**'. By collaborating to create this poem, we hoped to demonstrate our own version of mutualism, turning conversations into poetry.

Isla talked to me and Jane about the ways coral and algae work together in their environment, the coral reef. The algae are specially adapted to live within the structure of the coral, where they **photosynthesise** – in other words, turn sunlight into energy – and pass on that energy to the coral. In this way, both organisms benefit from working together.

But as seas warm, some **zooxanthellae** algae respond by releasing toxins, which leads to their being ejected by corals, at which point corals become pale and colourless. This is called '**coral bleaching**': the coral is not dead, but waiting for healthy algae with which to continue its relationship. But sadly, after a time, the coral will perish. This is a major issue for reefs, habitats which support around 25% of the ocean's fish (source: [NOAA](#)).

READING THE POEM

Read the poem again and spend a few moments thinking about it. Now discuss these questions with a partner or, if you're reading this resource independently, jot down some notes.

- In what way does the structure align with the topic of the poem?
- What is the role of the different voices? How might this poem be different if it represented a single point of view?
- Why do you think it is important that the different voices address one another directly?
- The poem uses **personification** to give the coral and algae voices. Personification is when we attribute human characteristics to something non-human. How do you think this technique makes us think about algae and coral differently than if we were reading a purely factual text?
- How would you describe the tone of the poem?
- Does the poem make you think about the climate crisis? How does it make you feel?



WRITING YOUR OWN POEM

Here is how you can make your own poem around this, or other, mutualistic relationships.

STEP 1. FACT-FINDING AND MIND-MAPPING (20 MINUTES):

Research is a big part of my writing process. I like to read articles, watch videos on YouTube and read non-fiction books and articles, to inspire my poems – especially around nature and the environment.

If you'd like to learn more about mutualistic relationships, then you could look at [this Natural History Museum site on eight mutualistic relationships](#), from pollinator bats with pitcher plants, to clownfish (yes, like Nemo) with sea anemones.

Choose one you're interested in, then create a list or mind-map of what you've found out.

Consider:

- **Who's** involved? Find out about the animals/organisms.
- **What** happens during this relationship and **when** do they interact?
- **Why** do they have this relationship (i.e. what's in it for both of them)?
- **Where** is this environment and what's it like? Imagine it using all your senses.

STEP 2. HOT SEATING – IN PAIRS OR THREES (15 MINUTES):

Hot seating is an approach where someone becomes a character, then other people ask them questions – a kind of fictional interview. It's called 'hot seating' because the person being interviewed is put in the hot seat!

If you're **being interviewed**:

- Now you've got some facts to work with, one of you is going to be, for example, a clownfish: you'll respond as if you are that creature.
- You'll be imagining, *What if I were a clownfish?*, responding as if you were one. *What then?*
- You'll have your research to inform your answers, but anything you don't know – make up! Or explain why you don't know it. Try to stay in character.

If you're the **interviewer**, you could ask:

- What can you see / hear / taste / feel / smell?
- What makes you happy?
- Tell me about your relationship with...
- What's your struggle – what is challenging in your world?
- How do you see your future?

But see what other questions you think of while you're talking to the clownfish, or bat, or...

If you have a recorder on a smartphone or another device, it could be really helpful to record your hot-seating.

If not, work in threes and the third person will write down some key phrases which come out of the process for you to use in your poem.

Top Tips and Tech Tips:

- If you're working on Zoom, you could enable the transcription and use this as the basis of a poem
- Keep your improvisation to a few minutes only! Trust me, it's surprising how much material this will create and then you'll need more time to edit down to a poem...



STEP 3. CREATING A POEM (30+ MINUTES):

- If you recorded your hot seating, listen back and type out the bits which stood out as interesting, exciting, memorable
- Add in line-breaks and see if you can make each line interesting in some way
- Focus on the concrete and sensory images from what you said – things you could see, hear, taste, touch, feel
- If you didn't record it, talk through the notes from the documenter in your three to see what stands out.

IMPROVISING INDIVIDUALLY (TIMINGS AS ABOVE, BUT SOLO!):

saying Yes, and –

'Improvisation' means to create something unplanned or without preparation. When we write on our own, using our imaginations, we're often improvising too – seeing where an idea takes us.

One approach in improvisation is to use, *Yes, and –*, which is when you say 'yes!' to each new idea that occurs to you, AND you expand that idea until a new idea is created. By accepting everything your imagination suggests and allowing it to grow, you'll keep extending your idea and the world of the poem. If you say *No, but –* you'll cut your writing off before you get to the good stuff! So even when it's really silly – especially when it's really silly – *keep going anyway*.

Try the above activity – researching, mind-mapping and then writing – but working on your own. Interview yourself! See what happens when you are both interviewer and creature being interviewed, or perhaps be the voices of both organisms in that relationship.

Set a timer for 10minutes and write, write, write. Then edit what you've got afterwards.

ABOUT THE PEOPLE WHO CREATED THIS RESOURCE

JANE HILLS

Jane has a background in healthcare and acting. She worked in the NHS as a general and paediatric nurse and in management roles. She's a trained actor and graduated from The Royal Welsh College of Music and Drama in 1996, working in TV, theatre, film and voice overs and was a member of the live improvised comedy theatre company Instant Wit for over 12 years.

ISLA KEESJE DAVIDSON

Isla is a PhD candidate at the University of Bristol, looking into how fish communicate with each other using their different senses. Having worked on alarm calling behaviour in coral reef fish, she now explores the way in which different fish species (from clownfish to manta rays) communicate under the pressure of changing marine environments.

CALEB PARKIN

Bristol City Poet, published widely in magazines, journals, and through commissioned poems. He tutors for The Poetry Society, Poetry School and First Story and holds an MSc in Creative Writing for Therapeutic Purposes. Debut pamphlet: *Wasted Rainbow*, (tall-lighthouse, Feb 2021). Debut collection: *This Fruiting Body* (Nine Arches, October 2021).

Poem 'We, The Reef' © Caleb Parkin, Jane Hills and Isla Keesje Davidson



NEXT STEPS

For more poetry opportunities, check out Young Poets Network, The Poetry Society's free online platform for poets worldwide up to the age of 25. You'll find features, challenges and competitions to inspire your own writing, as well as new writing from young poets, and advice from the rising and established stars of the poetry scene. youngpoetsnetwork.org.uk

About this project

About Us is one of ten commissions for UNBOXED: Creativity in the UK. The project explores the infinite ways we are connected to the universe, the natural world and one another. A major live show toured the UK in spring 2022.

59 Productions is an award-winning design studio and production company who created the breath-taking video design for the London 2012 Olympic Opening Ceremony. Stemettes is an award-winning social enterprise working to bring young women and non-binary young people into Science, Technology, Engineering and Maths (STEM) careers. The Poetry Society is an Arts Council England National Portfolio Organisation and is one of the UK's most dynamic arts organisations, championing poetry for all ages.