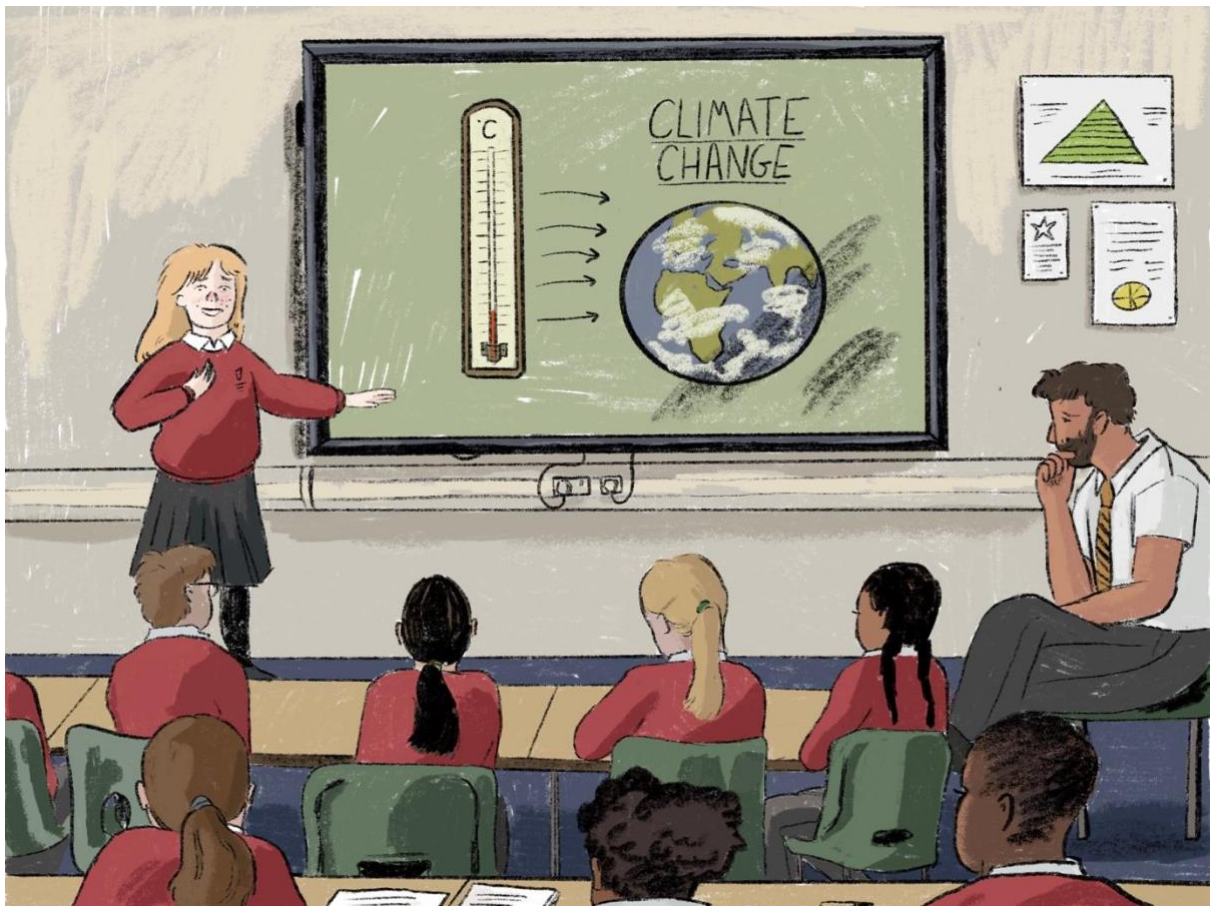


# Primary School Teacher Pack

## Climate Storytelling



## This pack

This pack has been designed to teach a class about climate change and storytelling.

It includes:

1. A context overview of *Chasing the Curlew's Call*
2. A detailed lesson plan and tips for teaching this class
3. Class worksheets
4. An information section about teaching storytelling
5. An information section about climate change and the curlew
6. Further links and resources for students and teachers

### Context of *Chasing the Curlew's Call*

Climate change can often feel overwhelming to think about and the science can only go so far in engaging with people across society, including the youth. *Chasing the Curlew's Call* is a story that has been created to explore a different approach to sharing knowledge and increasing engagement regarding the topic of climate change. The story was developed as a result of workshop discussions with diverse audience members with over 150 guests, including community artists, teachers, interdisciplinary academics, council members, students, digital storytellers and prominent figures such as Professor John O'Halloran and former UN Irish Ambassador David Donoghue. The story builds on participant desire for new narratives rooted in place, history, memory, relatable character lives and human-nonhuman connections.

*Chasing the Curlew's Call* is a story in two parts: (1) a graphic novel and (2) a closing animation. It follows young Lou as she searches with her grandfather for the disappearing curlew. Her grandfather shares knowledge about the bird and how changes in weather patterns have impacted the curlew's life in the area they have always called home. Connections are built between generations of the curlew and generations of Lou's family tree. As the story progresses, Lou understands and cares more about the curlew and wants to help them. Her grandfather encourages her "to tell people about their magic". Three months later, Lou delivers an animated presentation at her school about the curlew bird and how climate change is impacting its survival. She explains the ripple effects of changing weather patterns and invites the reader to see – in a grounded way – why we should care, and why we should help.

# Lesson Plan and Teaching Tips

The aim of this lesson is to explore how storytelling can invite young people to learn about climate change and feel a sense of engagement with the subject.

The class can be 60 or 120 minutes long, depending on whether you include the creative storytelling task. We encourage you to include this section, as students show keen interest in developing their stories, build core skills in written comprehension, visual storytelling and comic book design, and cement their learning from the class.

Class materials needed:

- Internet access: to access to the online graphic novel and animation
- Equipment for students to write
- Coloured pencils, A3 paper and rulers
- Option to print class worksheet questions or use current workbooks

Through the lesson plan, students are guided through:

1. Introduction to the Class
2. What Makes a Good Story?
3. Students' Understanding and Engagement with Climate Change
4. Reading a Graphic Novel and Watching an Animation
5. Comprehension Questions and Class Discussion
6. Students' Understanding and Engagement After Reading
7. Creative Storytelling Task: Designing a Graphic Novel/Comic Book

Before starting class, please open our online survey and enter your school's details.

<https://forms.cloud.microsoft/e/gQ45WqYEzV>

## 1. Introduction to the Class (00:00-05:00)

Teachers can explain that this is a class about climate change and storytelling. They might explain how the subject of climate change can often feel quite large, overwhelming and abstract, so today's class will be thinking about how storytelling can help us approach the subject with care, interest and understanding. Teachers can outline that the class will include discussion questions, reading a graphic novel, watching an animation, and a creative writing task for students to write their own comics.

## 2. What Makes a Good Story? (05:00-15:00)

Our first question for students is: *What is your favourite story and why?* This has been designed to get students thinking about current stories they like and what particularly makes them effective. (Further information on how storytelling weaves through the class can be found on page 13.)

Students can choose any story they like; there is no right answer. The story could be a cartoon, a book, a film, a video game, a play.

Teachers are encouraged to invite students to add detail in their explanation for why they like this particular story.

They might, for example, touch upon:

- Compelling and believable characters
- An immersive setting or well-designed world
- A dramatic, interesting or tense plot
- Relatable friendships or relationships
- Themes and genres they enjoy, such as: adventure, fantasy, romance, horror, coming of age (where a character discovers their sense of self as the story progresses)
- An emotion it makes them feel
- A compelling 'problem', also known as an 'inciting incident': something that happens early in the story to throw the character's world out of kilter or that causes them to make a new decision
- A compelling 'solution': an ending that feels believable

When listening to responses, teachers can emphasise that story stories work effectively with (1) compelling and relatable characters, (2) interesting problems and (3) believable solutions. Highlighting these three areas will help set up the groundwork for the final creative storytelling task.

NB. Students are encouraged to understand that we all have mixed preferences when it comes to stories and that this is OK. Knowing what we like to read helps us to know what kind of writer we might like to be.

### 3. Students' Understanding and Engagement with Climate Change (15:00-20:00)

For this section, students are invited to respond to the online survey questions by raising their hands.

This step is essential for our research project and by submitting the survey, schools will automatically be entered into a prize draw to win a weather station for their school and hard copies of the graphic novel.

*How to use the online survey?*

First, make sure you have the survey open:

<https://forms.cloud.microsoft/e/gQ45WqYEzV>

Now turn to section three in the survey.

Explain to students that they are answering ten questions before reading the graphic novel. After every question they can share their answer of Yes, No or Maybe by simply raising their hands.

For example,

*Do you know what climate change is?*

*"Hands up high for Yes" (count number of students and input into survey)*

*"Hands up high for No" (count number of students and input into survey)*

*"Hands up high for Maybe" (count number of students and input into survey)*

It can be helpful to have a member of staff input student numbers into the survey as the teacher asks the questions and counts number of hands raised.

### 4. Reading a Graphic Novel and Watching an Animation (20:00-30:00)

You can access the graphic novel and animation by following this link:

<https://www.met.ie/education/chasing-the-curlews-call/>

Have the teacher read the graphic novel while students follow along. When you get to the end of the story, simply click back to watch the animation. The animation closes the piece.

## 5. Comprehension Questions and Class Discussion (30:00-50:00)

We now have written comprehension questions for students to pause and consider their engagement with the graphic novel and animation, and their key learning points.

1. The main characters in this story are Lou, Grandad and the Curlew. Who did you like the most and why?
  - a. In discussion, guide the student to elaborate on their reason for choosing this character. If doing the creative activity, this can be a point to note how character-driven fiction is essential for engagement.
2. What did you particularly enjoy about the story? For example, the themes, the dialogue, the descriptive writing, the emotions, the art, the facts.
  - a. Responses so far have included the art style and colour scheme themed with nature, emotions of the characters, the emotions the story inspired in the students, Lou's motivations, the curlew bird and its sound, the story's use of facts while being easy to understand.
3. Did you prefer the book or the animation, and why?
  - a. Responses have noted how reading the book allows students to engage their imagination actively and presents a clear story whilst also providing facts. They have noted an interest in the descriptive language, page design and visuals, as well as reading pace and reflection. Others have noted a keen interest in the animation for its use of sound (curlew call), the focused climate science and compelling moving images.
  - b. This will be a reflective point in our closing teacher questions.
4. Can you remember how many curlew birds we have lost in Ireland in the last 30 years?
  - a. 98%.
5. How long have curlews been in Ireland?
  - a. 10,000 years.
6. According to Lou's presentation, what are the main causes of climate change?
  - a. She says: "A warmer world is changing the way nature works everywhere. It's happening because of something called greenhouse

gases. These are gases like carbon dioxide that come from cars and factories. Cutting down trees makes the problem worse because fewer trees are left to remove carbon dioxide from the air. These gases trap heat from the sun, a bit like a big invisible blanket around the earth, and that blanket is getting thicker, which means our planet is getting hotter.”

- b. Students are correct if they note: greenhouse gases, carbon dioxide in the air from cars, factories and cutting down trees.

## 6. Students’ Understanding and Engagement After Reading (50:00-60:00)

Here, we return to the survey for students again to share their answers now to the online questions. The reason we are asking questions after reading is to get a sense of how students’ understanding and engagement may be similar or different than before. Some of the questions are similar, and some are more directed to their experience with the story and animation.

NB. At the end of the class we will ask for teacher reflections, so it would be helpful to observe what you feel has developed in terms of interest, learning or engagement.

## 7. Creative Storytelling Task: Designing a Graphic Novel/Comic Book (60:00-120:00)

Our creative writing worksheet is included on page nine. The worksheet is in two parts 1) character design 2) story design.

Building on our first task, students can now apply elements of effective storytelling to their own work. They can recognise the importance of building a compelling character, the intrigue that comes through ‘problems’ in a story and the importance of a believable resolution. If you would like assistance teaching this part of the class, please refer to our information section on teaching storytelling (page 13).

# Class Worksheets

## Opening Question

1. What is your favourite story and why?

## Written Comprehension Task

1. The main characters in this story are Lou, Grandad and the Curlew. Who did you like the most and why?
2. What did you particularly enjoy about the story? For example, the themes, the dialogue, the descriptive writing, the emotions, the art, the facts.
3. Did you prefer the book or the animation, and why?
4. Can you remember how many curlew birds we have lost in Ireland in the last 30 years?
5. How long have curlews been in Ireland?
6. According to Lou's presentation, what are the main causes of climate change?

# Climate Storytelling Worksheet

## Design – Part I

### Create your character

With your partner, imagine an animal affected by climate change.

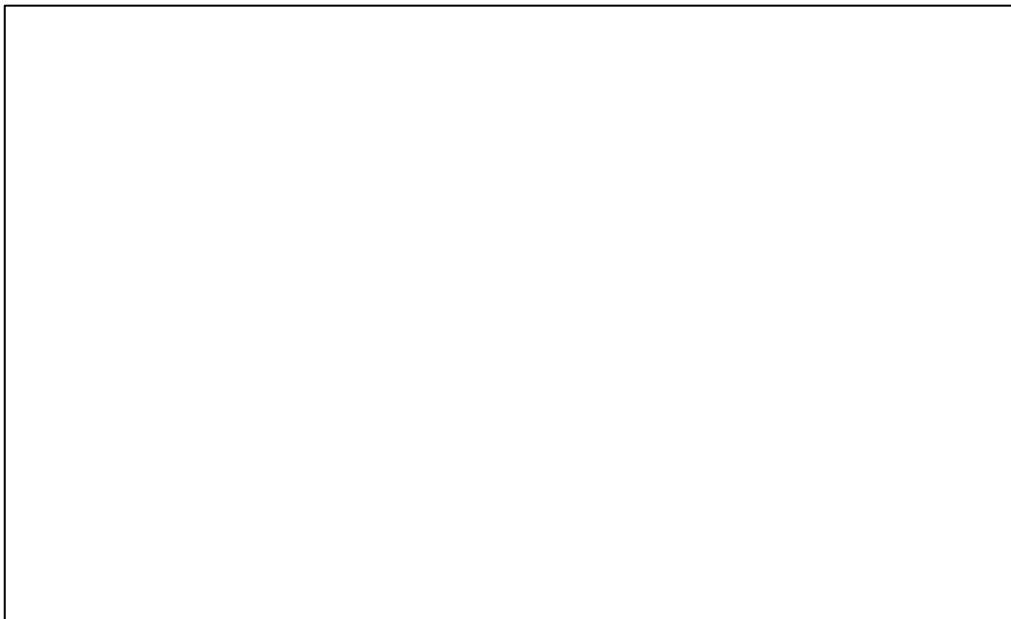
Climate change can cause:

- hotter summers,
- bigger storms,
- flooding,
- rising sea levels,
- changes to animals' homes and food

1. What animal will you choose?

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2. Draw your animal below:



3. What is your animal's name?

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4. Where does your animal live?

Does it live:

- in Ireland or somewhere else?
  - in a forest, river, garden, ocean, farm or nest?
  - somewhere hot, cold, wet or icy?
- 

Draw your answer:



5. Who do they live with?

Do they live:

- with family
  - with friends
  - in a group
  - alone?
- 

6. What problems are they facing because of climate change?

Think about:

- Is their home changing?
- Is it harder to find food?
- Is the weather dangerous?
- Do they need to move somewhere new?
- Are they scared, worried or confused?
- Who helps them?

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7. If your animal could speak to humans, what would they say?

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## Design – Part II

### Build your story!

You have your main character, you know where they live and who they might live with. You also have a sense of how climate change is creating a problem in your characters' lives.

Now, let's create a graphic novel/comic book based on your character.

Your story should help readers:

- care about your character
- understand their challenges
- imagine hope or positive change

To make your story, divide your A3 page into sections like in *Chasing the Curlew's Call* and then create a visual comic strip for your beginning, middle and end.

#### **Beginning:**

Show us what your animal's normal life looks like.

- Who do they live with?
- What do they enjoy?
- What are they doing today?

#### **Middle:**

A climate problem begins or gets worse.

- What happens?
- How does this change your animal's life?
- Do they go on a journey, try to solve a problem, protect someone or ask for help?

**End:**

What changes by the end of the story?

Does your animal:

- find safety?
- make a new friend?
- help others?
- discover something important?

## Student Examples



*Student examples from Nano Nagle College, Coláiste Éamann Rís, St Maries of the Isle National School, all in Cork City.*

# Teaching Storytelling

## Why are stories important in the context of climate change, and this workshop?

As discussed above, Climate Change can feel vast, abstract and overwhelming. In addition to learning facts and understanding the context of Climate Change, stories (reading them, and writing them) can help students feel personally closer to the issue because of:

- Emotionally resonant characters, which may remind students of themselves, their families, friends or the animals/nature they love
- Being able to focus on a very specific aspect of climate change and understand its causes, impact and consequences
- The ability to connect with the issue rather than feel paralysed by its scale
- The ability to feel that they have a role to play in helping the planet
- The ability to feel like they are part of something greater than themselves

## Suggestion on carrying the thread of “storytelling” throughout this workshop:

1. Starting the workshop by giving students time to write about and then discuss what their favourite stories are and why helps warm them up, and engage them with the value of storytelling. During the discussion portion, elements of storytelling can be extrapolated by the teacher, assisting students in seeing how a story they like has been made impactful and resonant. It is helpful to highlight the emerging examples of “character-driven stories,” ones with clear “inciting incidents,” and extrapolating what makes the students care about the story.
2. After engaging with *Chasing the Curlew's Call*, there are comprehension questions intended to help students explicate what they learned from the story and reflect on what aspects of storytelling they enjoyed. If the class is engaging in the creative activity, the teacher can use this conversation to discuss what made their favourite characters resonate, the value of emotional engagement, and how the story has a beginning, middle and end.
3. During the creative writing activity (design part one), the teacher can discuss with pairs: what kind of animal their character is, and help push students to create rich characters. Especially if some students finish early, it is a good opportunity to encourage students to further imagine the life of their character.
4. During the second design stage, the teacher can engage with student pairs, discussing the stories they are coming up with and bridge gaps between storytelling and climate change.

Character driven stories matter in this workshop setting because by writing characters with genuine interiority, the students will recognise something true in them. The specific fears, contradictions and desires will help create personal resonance for the students creating the story, and the other classmates when they hear each other's stories. This emotional resonance is the primary force of storytelling which is intended to carry forth the messaging of climate change beyond the classroom.

As students construct their stories, the teacher can assist by:

- Asking bridging questions that help students make connections

- Suggesting story elements like dialogue, time jumps, plot twists, obstacles, supporting characters, that might help give structure to the story
- Probe students to think more deeply about the conflict aspect of the story, and encourage creative solutions

## Glossary

**Character-driven stories:** This is one of the most effective ways to create a story as the narrative is propelled forward in response to the characters' desires, flaws and personal dilemmas. The plot grows out of how the character responds to what is happening around them, not merely what is happening to them.

**Plot-driven stories:** The narrative moves forward because of external events, and the focus is on what occurs rather than who the characters are. The story advances primarily through action and circumstance, with character serving the sequence of events rather than generating it.

**Inciting Incident:** The event that disrupts the character's ordinary world in the beginning and sets the story in motion. It creates the central problem or question that the character must respond to.

**Beginning:** This portion of the story establishes the character's world, where and how they live, and the context of their life before the central conflict takes hold.

**Middle:** Usually the longest section of the story, this is the part where the character pursues their goal (in the case of this task, this has usually included trying to find a solution where the character is, migrating to somewhere else, or going directly to the source of the problem). In a complex story there are smaller challenges that the character might encounter while trying to solve the larger problem. Even one notable "smaller" challenge may really develop the narrative.

**End:** The culminating moment in which the central tension reaches its peak and the character must face the consequences of what has happened in the pursuit of the solution. Usually the character has to change or lose something or someone, or leave behind something. The ending offers a sense of resolution or discovery within the character's world. It is often a moment of learning. Perhaps a character gets something they needed, rather than what they wanted.

**Problem/Conflict:** This is the central conflict driving the story. This can be internal or external, or both. Climate change is a key moment of conflict driving these stories.

**Resolution:** The outcome of the conflict. This does not need to be a happy ending, but show what has changed in the character's situation, understanding, or sense of self.

# Information sheet for teachers about climate change and the curlew bird

## What is climate change?

- Climate change means large-scale, long-term changes in the Earth's weather patterns or average conditions (like temperature, rainfall, seasons).
- It's different from "weather": weather is what you get day-to-day (sun today, rain tomorrow), while climate refers to the average of weather over long periods (decades).

## What's causing the current climate change?

- Scientists agree that recent climate change is overwhelmingly due to human activities, especially burning fossil fuels, which releases greenhouse gases such as carbon dioxide that trap heat in the atmosphere.
- These greenhouse gases amplify the natural "greenhouse effect," making the planet warmer than it would be otherwise.

## What that means in practice:

- As a result of climate change, long-term averages are shifting. For example, global temperatures have risen, and weather patterns are altering.
- For Ireland, observations from Met Éireann show the climate is changing: the country has become warmer and, in recent decades, wetter.
- This also means extremes, like more intense rainfall, heatwaves, or changing seasonal patterns, become more likely over time.

## Ireland's climate is expected to change as follows:

1. Temperature increases
  - Summer average maximum temperatures could rise by more than 2 °C.
  - Winters are also expected to warm: average minimum winter temperatures may increase by more than 2 °C.
  - Under a high-emissions scenario: by 2100 summers could be up to ~2.6 °C warmer than now.
  - As a result, heatwaves will likely become more frequent (i.e. more summers with spells of unusually high temperatures).
2. Rainfall and precipitation changes
  - Rainfall patterns are expected to shift: winters (and likely autumns) may become wetter, with increased rainfall and higher risk of flooding.
  - Summers may become drier — summer rainfall is projected to decrease, which could raise risk of droughts or water shortages during dry summers.
  - At the same time, heavy rainfall events (intense downpours, storms) are likely to become more frequent and intense.
3. Sea-level rise, coastal & storm-related impacts

- Sea-level rise is expected to increase the risk of coastal flooding, especially during storms or high tides, making coastal surge and “compound events” (e.g. heavy rain + high tide) more hazardous.
- Warmer Irish and Atlantic waters also increase the fuel for storms: storms are expected to become much more powerful under a warmed climate.

## **Curlew and a Changing Climate in Ireland**

The Eurasian Curlew is one of Ireland’s most threatened birds. Only around a hundred breeding pairs remain. Decades of habitat loss, drainage of bogs, intensified farming and disturbance have left the Curlew with far fewer safe places to nest and rear chicks. Climate change is now adding a new layer of pressure to a species already close to the edge.

### **Winter is changing**

Curlew traditionally spend the winter on estuaries, saltmarshes and muddy coastal flats where they can probe for worms and other invertebrates. Research has shown that this is shifting. Over 17 years of winter records reveal that Curlew are increasingly being seen in more artificial and human-dominated places: harbour zones, industrial edges, and land close to agriculture.

This is not because those places are better. It is because the places they used to depend on are being squeezed by coastal development, sea-level rise, wetter winters and more frequent storms. As natural sites become damaged or flooded, Curlew are pushed into less suitable habitats. These areas may offer poorer food, more disturbance and more risk from predators.

For a large wading bird that already struggles to raise chicks, this makes survival even harder as less birds may return to their breeding ranges in the spring.

### **Wetter winters, wilder weather**

Ireland’s winters are becoming wetter and stormier. Sudden heavy rainfall erodes delicate coastal feeding grounds and floods nesting bogs and meadows. When tides combine with storms, mudflats that were once rich feeding areas may be swamped or washed away. The food that Curlew rely on, small creatures living in mud and soft ground, becomes harder to reach.

These pressures weaken the birds going into spring. If adults return from winter in poor condition, they are less likely to breed successfully.

### **Hotter summers and dry ground**

Climate change does not bring only rain. Heatwaves and long dry spells are also becoming more common in Ireland.

For Curlew chicks, dry ground is dangerous. They depend on soft, moist soil where they can pick out insects and worms. When heat dries out the land:

- the soil hardens
- invertebrates retreat deeper or die
- food becomes scarce and harder to find

Chicks that cannot feed well in their first few weeks simply do not survive. Even a small drop in survival can cause a major shift in such a tiny population. This is one of the reasons Curlew numbers have plummeted so sharply.

The combination of wetter winters and hotter, drier summers produces a double-threat: flooded habitat in winter and dry, hard land in summer. Both reduce food at the very moments when adult birds and young chicks need it most.

### **Sea level and coastal squeeze**

Rising sea levels also affect Curlew. Many of their winter feeding sites sit just above the tide line. As sea levels creep up, high tides and storms reach further inland, eroding the edges of saltmarsh and mudflat. There is often no room for these habitats to shift, because behind them are seawalls, roads or farmland.

This “coastal squeeze” means habitat simply disappears.

### **Why this matters**

Curlew are a symbol of open bogs and wild wetlands: the long, bubbling call is woven into Irish cultural memory. But the future is uncertain. If climate pressures continue to reduce feeding and nesting success, Curlew could be lost from Ireland completely.

Saving them is not just about protecting a single species. It means restoring and defending the places they depend on:

- bogs and wet grasslands
- saltmarsh and mudflats
- quiet meadows and rushy fields

These landscapes store carbon, hold floodwaters, and support whole ecosystems. What benefits the Curlew tends to benefit people too.

## **Further resources for students and teachers**

### **Climate & Environment**

1. Met Éireann: <https://www.met.ie/> and TRANSLATE: <https://www.met.ie/science/translate>
2. Engage with Nature [engagewithnature.ie](http://engagewithnature.ie)
3. FutureEnergy Ireland – Learning Hub [FutureEnergy Ireland](http://FutureEnergyIreland)
4. Scoilnet – Climate & Sustainability Learning Path <https://www.scoilnet.ie/learning-path/>

## Curlew & Wildlife Conservation

1. Irish Peatland Conservation Council (IPCC) <https://www.ipcc.ie/discover-and-learn/resources/curlew-book>
2. Curlew Country – Learning Hub [ECHOES Project](#)
3. BirdWatch Ireland <https://birdwatchireland.ie/donations/farmland-bird-appeal>
4. Nature Network Ireland [naturenetworkireland.ie](http://naturenetworkireland.ie)
5. Curlew Action <https://www.curlewaction.org/>
6. National Parks and Wildlife Service (NPWS) <https://www.npws.ie/farmers-and-landowners/schemes/curlew-conservation-programme>