



KEEP IT COOL

CLIMATE CHANGE EDUCATION

Set 1 for Teachers:
What is a curriculum activated
climate change project?

This is a support set for Teachers primarily - but also for Professional Learning Communities (PLCs) - participating in the Keep It Cool: Climate Change Education (KIC:CCE) Project.

The KIC:CCE Project aims to implement innovative, curriculum activated CCE projects, involving learners and communities. The project aims to facilitate collaborative, continuing professional development and improve the teaching and learning of climate change education in the South African education system. Secondary school teachers will implement the change projects, with guidance and support from the school leadership team for the successful implementation of the projects. At the same time, teachers have the opportunity to form Professional Learning Communities (PLCs) to facilitate their professional development collaboratively. Key themes that run through the materials are gender equity, good governance, and social inclusion. The support sets provide stories, examples, tools and processes that can be used within the KIC:CCE Project by PLCs, the school leadership team and teachers.

VERSION 1 – September 2021

Reference: *Vallabh, P. & Walsh, A. (2021). Set 1: What is a Curriculum Activated Climate Change Project? Support Sets for Professional Learning Communities. Keep It Cool: Climate Change Education Project. Flemish Association for Development Cooperation and Technical Assistance (VVOB), Pretoria.*

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First Edition, First Impression 2021

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Copy-editing: Angela Vogt. Original Cover Design: Francis Lotz, adapted by Leanne Burford, Nelson Sampaio. Pedagogic Graphic Design: Priya Vallabh. Layout: Nelson Sampaio.

INTRODUCTION TO OVERALL RESOURCE SETS

What is in these teacher support sets?

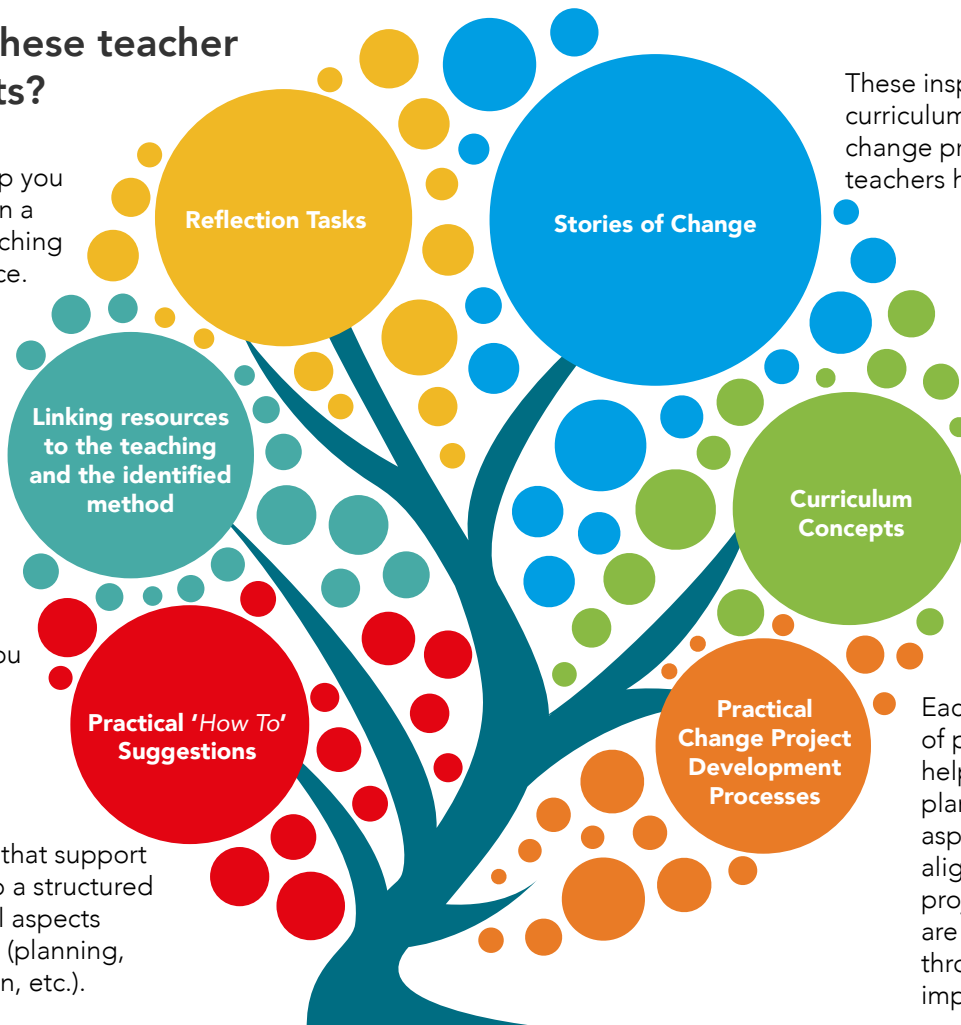
This set provides the foundation for thinking about and planning your curriculum activated climate change project. It works together with the other 7 sets in this series. Each set provides practical support for thinking about, planning, and implementing your curriculum activated climate change project. The sets also include stories of curriculum activated climate change projects that you can use for ideas and inspiration, for your project and also as a resource for your teaching.

What is in these teacher support Sets?

Reflection tasks help you to relate the ideas in a set to your own teaching and learning practice.

There are many resources available to support you to implement your curriculum aligned climate change projects. We have included a range of resource links across all the sets to help you access them.

Tips and tasks that support you to develop a structured approach to all aspects of your project (planning, implementation, etc.).



These inspirational stories share curriculum activated climate change projects that other teachers have implemented.

Each story of change includes curriculum links for your reference. You can find them in the top right-hand corner of each story.

Each set offers you a range of practical processes to help you to think through, plan, and implement each aspect of your curriculum aligned climate change projects. The processes are designed to guide you through the planning and implementation phases.

Here is the map to the 8 teacher support resources



WHAT IS A CURRICULUM ACTIVATED CLIMATE CHANGE PROJECT?

This set focuses on three important sets of ideas:

01

Ideas about curriculum, and teaching and learning

02

What makes a good curriculum activated climate change project

03

Key concepts about climate change.

What do we mean by curriculum activated?

Curriculum activated Climate change project

Our work as teachers is first and foremost to implement the national curricula for our subjects and grades. This means that our teaching and learning practice sits at the heart of any work we do with our learners. To help us to keep our teaching and learning at the centre of our climate change projects, we must begin by thinking about curriculum activated, and how particular subjects provide opportunities for learning about climate change.

CAPS leads teaching and action

Curriculum activated is about ensuring that our change projects align with and remain coherent with the CAPS for our subjects and phases. Our curriculum activated climate change projects should have clear links to the teaching and learning we do in our classrooms. They should be an extension of our CAPS teaching and learning, and should build on the core knowledge covered in CAPS.



Learning for change in a changing climate

It is also useful to remind ourselves that it takes many years to write and roll out a national curriculum - this means that the content knowledge described in our CAPS is always about older knowledge. Climate change is transforming the world more quickly than we are able to produce curricula

about it. This means that we always need to supplement the core knowledge described in the CAPS with any new knowledge about climate change that becomes available.

THINK ABOUT THIS

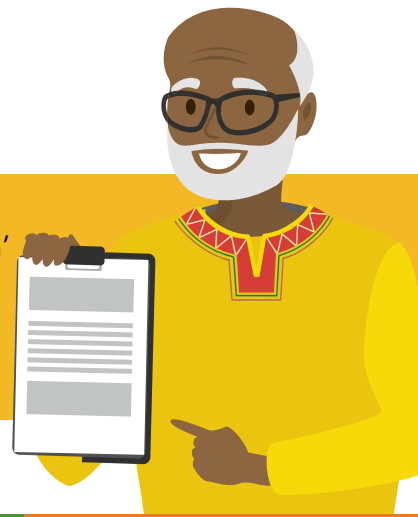
Remember that the Curriculum and Assessment Policy Statements (CAPS) that we use to guide our teaching practice are an outline of minimum standards of teaching. In other words, they describe the most basic level of work and content that we, as teachers, need to cover in a grade and phase.

CAPS ++

We use the idea of CAPS++ to talk about the importance of aligning to CAPS and also adding to CAPS by working with new knowledges; locally relevant knowledges; alternative knowledges such as indigenous knowledges; and also uncertain knowledges.



WHAT IS A 'SHARED MATTER OF CONCERN'?



Matters of concern are about building knowledge about **evolving, messy, uncertain** social-ecological risks and issues. When we work on 'matters of concern' together, we acknowledge that no one person, or one form of knowledge, holds all the answers. We recognise the **importance and value of local contexts** and we engage in a processes of **ongoing learning** while we work out what is happening; why it is happening; and what to do about it, together.

When we work with matters of concern, we recognise that:

A

Our knowledge about climate change is still uncertain and our understanding is evolving and changing every day.

B

Who makes knowledge about climate change counts, because their ideas about the world affect how they interpret and establish that knowledge.

C

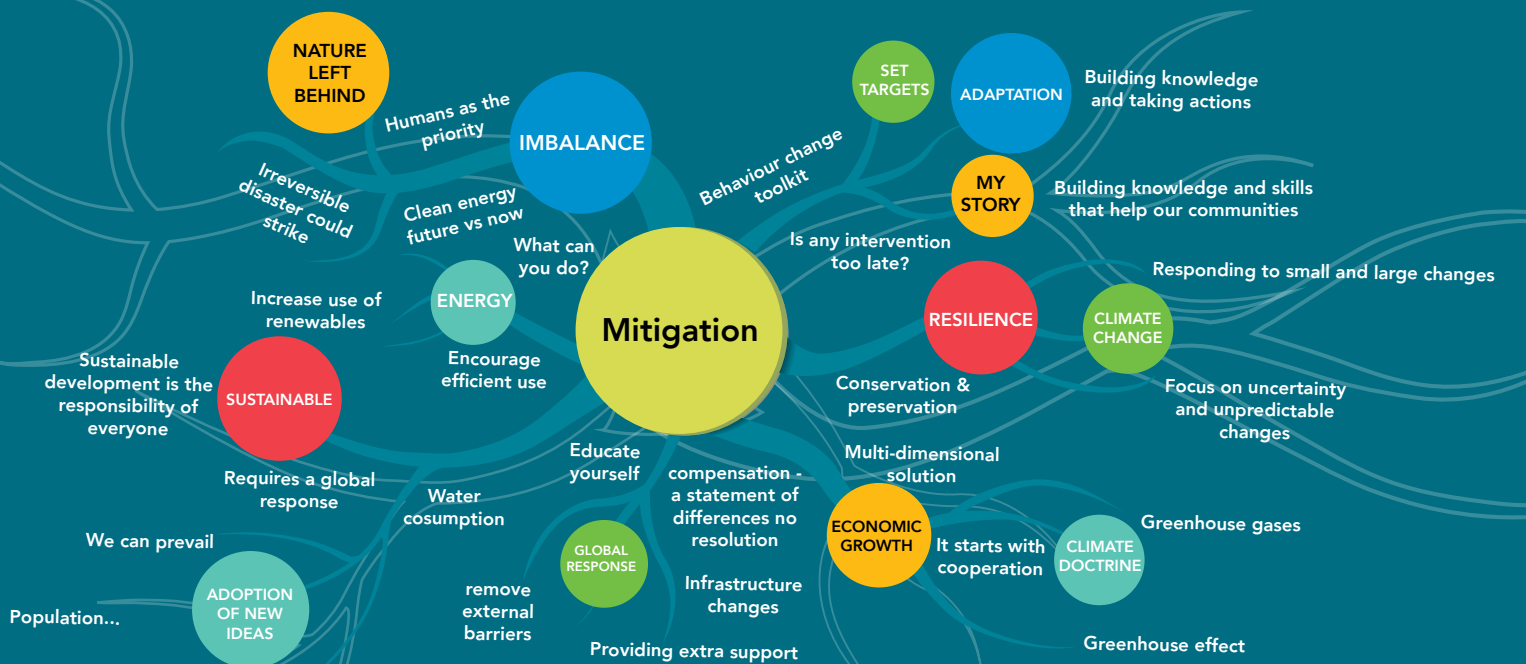
Why a scientist makes a particular claim is important because issues related to climate change are always highly political and often, contentious - there are many motives and interests affecting how we produce knowledge about particular aspects of climate change, and avoid others.

D

The decisions we make using knowledge about climate change always have impacts in the world, and that sometimes those impacts can make things worse, rather than better. Understanding this helps us to be more thoughtful and careful about the interventions we make in response to climate change.

Most often, when we work with scientific knowledge, we are used to working with facts and figures. We assume that the facts we know are certain - proven - knowledge. Facts are rarely questioned, and we don't ask who established a particular piece of knowledge (a fact); how they did so; or why they did so. This type of knowledge works well when we are dealing with simple, clearly understood issues and risks. However, **climate change is complex, evolving, and uncertain**. The impacts of climate change affect us all differently, depending on who we are and where we live. Climate change is highly contentious and political, as well as ecological, economic, and social. Reducing our knowledge about climate change to a few (or even many) facts is insufficient to help us resolve the many changing risks and issues associated with climate change. Instead, it is useful to work with matters of concern.

The 'circles' in the mind map indicate important concepts and the 'branches' provide some information

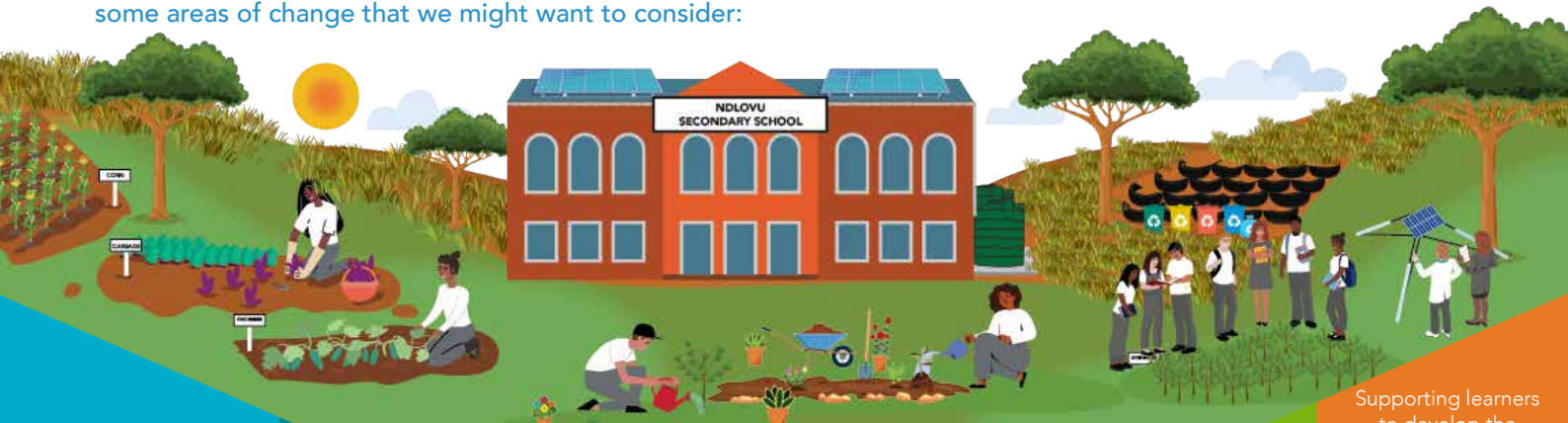


WHAT MAKES A GOOD CURRICULUM ACTIVATED CLIMATE CHANGE PROJECT?

Each of the teacher support sets in this series will help you to think about and plan your curriculum activated climate change project. At the start, it is useful to think about what makes a strong curriculum activated climate change project overall.

Curriculum activated climate change projects are about supporting and sustaining change. Curriculum activated climate change projects offer many areas in which you can transform your practice as a teacher, and bring about change in your classrooms, schools, or even your local community.

Curriculum activated climate change projects aren't about size or complexity. Rather they are about making deep and real changes in the ways in which we teach about and take action in response to climate change. Here are some areas of change that we might want to consider:



Strengthening our core knowledge about climate change

Designing stronger lesson plans that support our learners and our school communities to respond to and become more resilient to climate change.

Making changes in our schools, so that they become more climate change mitigating; climate adaptive; and climate resilient schools

Working with others to create changes in our local school communities in response to climate change

Supporting learners to develop the knowledge and skills they will need to adapt to a constantly changing climate, both now and in the future

Engaging and using stronger transformative teaching methodologies that help our learners to experiment with, investigate and deepen their understanding of their own contexts.

Remember that each curriculum activated climate change project needs to foreground two aspects:

A Teaching and learning to understand climate change in context

B Working out and trying out learning actions to address an aspect of climate change, based on our teaching and learning

2 Identifying a shared matter of concern

How are different people, and different organisms being affected by climate change issues in our community?



3 Finding out more about our local contexts to support curriculum innovation in teaching and learning

How is our local context contributing to climate change?
How is our local context being affected by climate change?
How can we become more resilient and adaptive to a changing climate at a local level?

1 KEY ELEMENTS OF A CURRICULUM ACTIVATED CLIMATE CHANGE PROJECT

6 Reflecting on and sharing our stories of change

What were our successes?
How can we improve on what we've done?
How can we take our curriculum aligned climate change project forward?



5 Trying out actions in response to climate change

Am I inspiring my learners to mitigate the causes of climate change through our collective actions?
Am I helping my learners to become more resilient to a changing climate in their lives?
Am I helping my learners to become more adaptable to variable and changing climates?



4 Strong curriculum activated teaching and learning about climate change

How is climate change represented in my phase and subject?
How can I deepen my teaching and learning about climate change?
Which teaching methods would allow me to teach about climate change in a way that would bring about change in how learners think, feel and act?

MAPPING THREE KEY CLIMATE CHANGE CONCEPTS

Here are three key climate change concepts to keep in mind as we design and plan our curriculum activated climate change projects. These include three dominant ways in which people think about how to respond to climate change. Each approach leads us to different types of climate change projects.

Climate Change Mitigation

Climate change mitigation focuses on building knowledge about the causes of climate change, and taking action to reduce or counter those causes. Mitigation approaches focus most strongly on managing greenhouse gases through strategies such as carbon sequestration; developing alternative energy technologies to reduce consumption of fossil fuels; and changing human behaviours that generate large amounts of carbon dioxide and other greenhouse gasses. **Climate change projects focusing on mitigation are therefore change projects that help us to learn more about the causes of climate change, and develop and implement actions in respond to those causes.**



Climate Change Adaptation

Climate change adaptation is about building knowledge and taking actions that help us to adapt to an already changing climate and environment. This might include building knowledge about how our local weather patterns are changing, and changing the ways in which we grow food in response. Or it might include slowly beginning to plan to transform our local businesses, schools and homes so that they become more water and energy efficient, as we learn to deal with increasing water scarcity. **Climate change adaptation projects help us to build the knowledge we need to change and adapt as our world and our local environments change.**



Climate Change Resilience

Climate change resilience is about how easily a community or ecosystem can 'bounce-back' or adapt after experiencing a negative impact of climate change. Part of climate change resilience is understanding what makes communities and ecosystems stronger and more adaptable to change.

Resilience strategies also focus on uncertainty and unpredictable changes. In southern Africa for example, we need to build resilience to increasing drought and water scarcity. Knowledge and actions that respond to uncertain futures might include planting hardier and more diverse water-wise crops, as well as disaster planning if crops fail, or helping communities to secure alternative water sources such as through the use of Jojo tanks.

Climate change projects focusing on resilience focus on building knowledge and skills that help communities withstand the hazardous impacts of climate change.



TRANSFORMATIVE TEACHING AND LEARNING IN RESPONSE TO CLIMATE CHANGE



Transformative teaching and learning is focused on learning to support change, and learning as change. Our shared intention in this form of teaching is to use the knowledge and skills available to create possibilities for a more sustainable and just world. It is about teaching in a way that helps us to initiate change in the context of complex and evolving climate change risks. Through transformative teaching methods, we support our learners to engage with and move into the world in a way that equips them to deal with ongoing change and uncertainty, and also become change-makers in the diverse contexts they might encounter.

Transformative teaching and learning involves supplementing curriculum-based knowledges with local knowledges, and also new insights and innovations. It includes active learning, where learners are supported to investigate and make meaning of their own context, and where learners are supported to challenge established ideas of how the world does, could and should work.

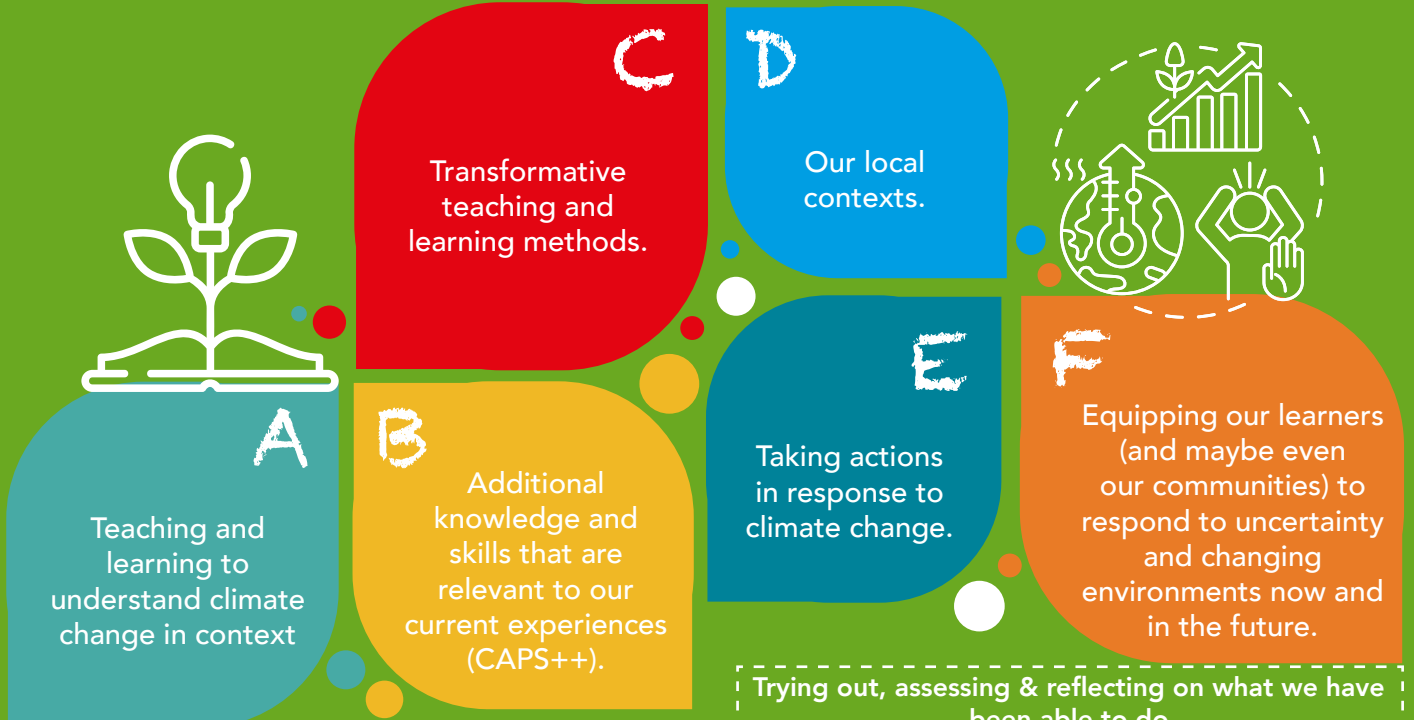


Transformative teaching and learning approaches support learners to both take responsibility for their choices and actions in the world, and to increase their response-ability - the ability to respond to the climate change challenge they encounter as they move through the world now and in the future.

What are the characteristics of a good curriculum activated climate change project for you?

Think about:

Finding out more and working out what can be done



Curriculum activation through teaching the key concepts

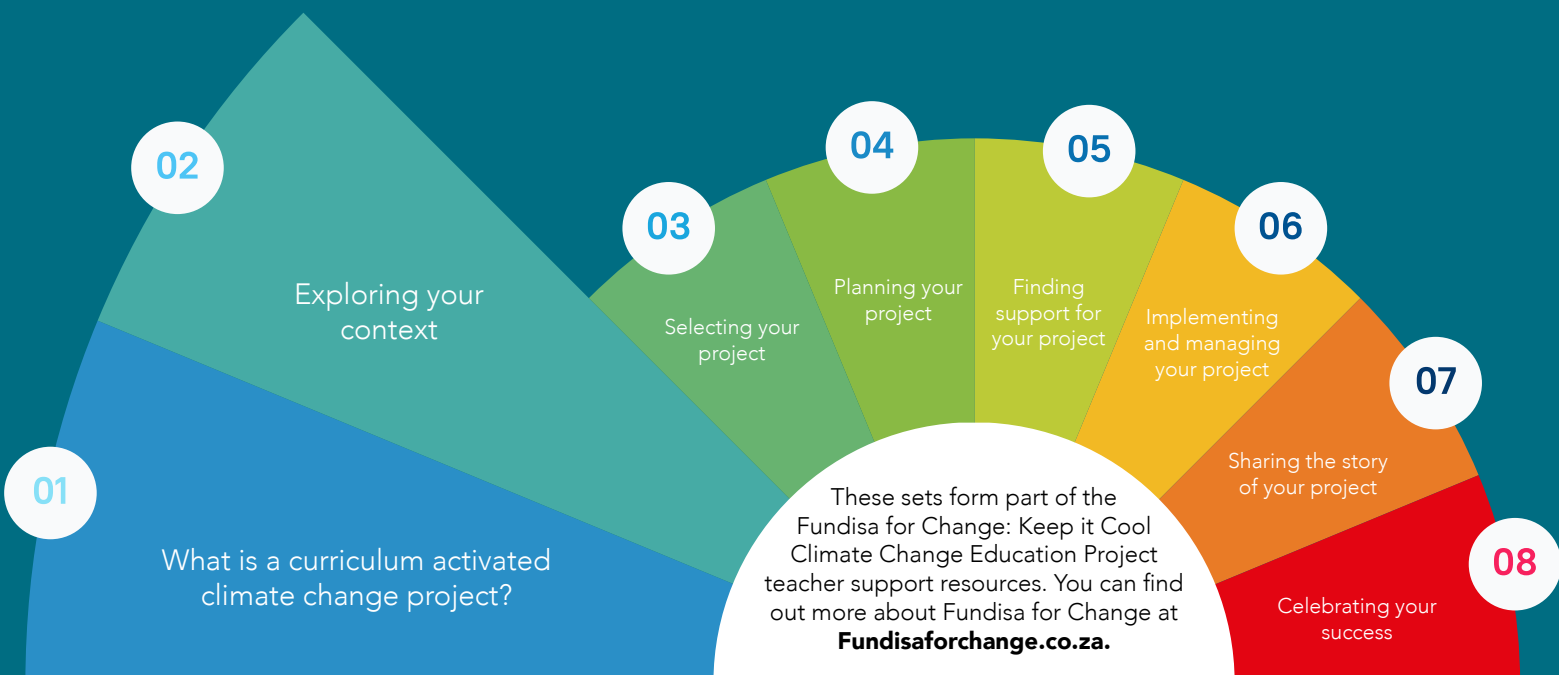
Trying out, assessing & reflecting on what we have been able to do

WHAT HAS BEEN COVERED IN THIS SET?



This set is about the curriculum – what it IS, and what it COULD BE. Key concepts about climate change – mitigation, adaptation, and resilience – are clarified.

By looking at this set, you have laid the foundation for your thinking about your curriculum activated climate change project. **This will help you to link your teaching, the learning, your classroom, and the curriculum activated climate change project that is relevant to your context, your school and your community.** In the next set, we will look at understanding your local context:



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Another resource for you:

The KIC: Climate Change Education Project has developed an extensive digital library of materials for all KIC partners.

What is in the resource? Open Educational Resources (OER's) that focus on teaching and learning about climate change and sustainability

When will you be able to access it? The website is live

How can you access the resource? <https://ibali.uct.ac.za/s/ccse/page/welcome>

How can the resource be used? Its primary purpose is to provide the teaching community (from primary, through to teacher educators) with relevant text and media resources to enhance their teaching practices and courses. You can do general searches by main categories such as climate change topic, foregrounded approach, or target audience. Each general category is then broken down into subtopics to help you find your areas of interest

You will be able to add interesting materials that you generate or find!

If you would like more information about curriculum focused, transformative learning, and transformative teaching and learning methods, then look at the Fundisa for Change core resources. You can download them from the Fundisa for Change website.

<https://fundisaforchange.co.za>





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