Chapter 1: What is Climate Change and Why Care?
Inquiry 1: Understanding Weather

- **Provocations** – *book*
- **Question Generation** – *book, Five W's Strategy*
- **Knowledge Building**– *Knowledge Building Circle, Critical Thinking Question*
- **Determining Understanding** – *KWL*
- **Pursuing Learning** – *sensory walk, charades*
- **Consolidation –** *visual processing cards ($), illustrate*
- **Assessment –** *Graffiti Wall*
- **Take Action**

A. Provocation

To hook student interest, introduce the provocation to initiate student thinking.

BOOK

What Makes It Rain? By Katie Daynes, illustrated by Christine Pym

This book, **What Makes It Rain?** is handy to have in the classroom and has six big topics with a lot of information on each. Note suggestions for when to use each chapter in brackets below:

- Rain (spring or when it is raining)
- Rainbows (spring or if you see one)
- Sun (any season/temperatures)
- Lightning and thunder (after a storm)
- Wind (any season)
- Snow (winter or if it snows when it shouldn't)

As you read through the book, discuss how people, animals and plants are feeling and affected by weather.

**If you don't have access to this book there are other suitable titles in your school or public library that could be used instead such as Questions and Answers About Weather by the same author*

Possible Discussion Questions:

- What would happen if it never stopped raining? Or if it didn't rain at all?
- What would happen if it only rains in one part of the world and not the rest?
- What would happen if the sun overheats a farmer's field?

- What would happen if all the glaciers melted?
- What is your favourite weather? Why?

B. Question Generation

At this point in the inquiry, we want to harness students' curiosity and build off the provocation that has captured their interest by generating meaningful questions to continue to drive the learning process.

Book: What Makes It Rain?
Have the students look at the pictures in the book. Ask them to think about what questions they would have. Start with one of the suggestions from **Five Ws and an H and Developing Higher Order Questions** (Who, What, Where, When, Why and How) to see what students come up with. Write these questions down so that students can see their questions come to life.

Extra Resource for helping students asking questions:
- Activities for Teaching Children to Ask and Answer Questions

C. Knowledge Building

At this stage, students may be ready to engage in a group knowledge building activity. It will encourage students to open their minds to many alternative ways of thinking about the provocations and ideas that have been generated thus far in the inquiry process.

Engage in a class **Knowledge Building Circle** (outside is recommended if possible) using one of the questions that you generated after the What Makes it Rain Book provocation or the example below.

Possible **Critical Thinking Question**:
- **"What do I know about weather?"** (easier)
- **"Do we need different kinds of weather? Why?"** (more difficult)

D. Determining Understanding

At this stage of the inquiry, use responses to inform and guide the learning process. They can provide insight into which concepts need clarity, what students are already well informed about, and a general direction that students want to pursue.

Based on their understanding of weather, work together with your class to fill out the "Know" and

"Want" columns of a KWL (Know-Want-Learned) Chart.

Sample KWL Chart:

TOPIC:		
K – What I Already **Know**	**W** – What I **Want** to Know	**L** – What I **Learned**

E. Pursuing Learning

At this stage, students may begin research to pursue their questions, or the following activity could be integrated into the process to ensure that students have an understanding of foundational climate science. The activity listed below will enrich the understanding of climate change.

The purpose of this activity is to make students aware of their environment using their senses.

Start with a **Sensory Walk** (this can be done during every season and all weather!).
Begin by having students take note of the weather on a particular day.

Example prompts:

- If it is windy, ask them, "Can you feel the wind on various parts of your body?" or "What direction is the wind coming from?". Have them notice where the sun is and if they feel the heat. Have them notice the shape of the clouds. Are they moving? Ask, "Do the shapes of the clouds remind you of anything?".
- In the winter, if it is snowing, go outside to have students closely look at snowflakes. Suggest that they look at their snowflakes and compare them with a friend. Ask if they are the same.

**For other ideas on focused sensory walks, explore *A Walking Curriculum* by Gillian Judson.

Follow up: Weather Element Charades
After the walk, divide the students in groups of 4 or students can choose to perform alone. Explain the instructions to the **Charade Game**.

In their groups, students pick a weather element that they observed outside during the sensory walk, talked about in the book or that they would like to share. Instruct them to work together to determine how to illustrate the element using their bodies and movement. Once they have rehearsed they will present their charade to the rest of the class. The spectators are invited to guess what they are acting out.

F. Consolidation

This step is designed to encourage students to integrate and synthesize key ideas. When students make connections and see relationships within and across lessons, this helps them to solidify knowledge and deepen understanding.

Illustrate
Have the students show their learning about climate with playdough, illustrations or movement in groups.

AND/OR

Visual processing cards (will need to be purchased)
Using a deck of **Visual Processing Cards** (**Chiji** or **Climer Cards**), spread these out on the floor or on a table. Ask students to pick a card that reflects something that they have learned today. This is ideally facilitated in a circle.

Assessment Idea

Teachers will assess learning at different points throughout the inquiry using multiple methods. The following assessment provides an alternative evaluation method to standard quizzes and tests that can be used after consolidation or at any point in the lesson to check for understanding.

Tell the students they are **school artists** and have been invited to explain to the **school community** about **weather.** They have been given a space on a wall called a **graffiti wall**.

Divide the wall into 3 and ask students to visually represent their ideas and opinions about **weather** in the first third. The other two thirds will be filled over the course of the next two inquiries (climate and climate change).

Spend some time learning about the history of graffiti: **Graffiti Facts for Kids**.

Take Action:

Once the students have a good understanding of weather, climate, and climate change, allow time for students to take action. This is an essential part of the learning process on climate change, as it empowers students and eases their eco-anxiety. Remind students that even when things get hard and seem so big they can always do something by taking action. Their actions will create an impact

These ideas for action can be utilized at any point in the learning process, whether it's now or after completing more guided inquiries. Please note the suggestions are consistent in each chapter.

Ask the students what they want to do to positively impact climate change. List their ideas and come up with a plan to put their action in place.

Ideas for Taking Action:

- Organize an assembly to present information learned in an engaging manner
- Plant trees
- Collect data as a citizen scientist (e.g., bird counts)
- Encourage families to use eco-friendly options in place of single-use items (e.g., plastic water bottles, paper coffee cups, etc.)
- Take a class pledge to make changes:
    - Use both sides of paper
    - Turn off the lights when leaving the room
    - Unplug things that aren't being used
    - Or check out these ideas: 50 Classroom Climate Actions - Resources and Descriptions

Action Project Examples:

*How could you use these great examples to come up with action projects with your K-2 students?

Watch this video titled 'Change the World' in 5 minutes. It is about a Primary class who have decided that they would spend the first 5 minutes of school each day of the week implementing sustainable change in the world. It's more of a movement that gives the youth the power to make a difference.

These kindergartens share what they learned about "Fast Fashion" in order to educate and create change.
Fashiontakesaction_03_24.mp4

Informative Article about using Dr. Seuss' book "The Lorax"
How Dr Seuss Wrote The Ultimate Takedown Of Fast Fashion

*Please note: LSF supports the removal of other Dr. Suess materials that have been discontinued because of anti-Black and anti-Asian racism.

"TEACHER" – Gladys Speers PS- Oakville, ON (2019) K-6

- The vision of this project was to educate the youth and the community on making choices in order to live in a sustainable and healthy way. Environment issues addressed: Convenience vs. sustainability, pace of life vs. nature appreciation,

consumer choices vs. rights to a clean environment, and ignorance of important life skills which help sustain a healthy environment. See their project here.

- Ten Canadian Schools' Stories of Climate Action
- Climate Action Project K-12
- Our Earth: How Kids are Saving the Planet - JANET WILSON