

2. Climate Change Challenge

Real World Goals

- | | |
|-------------------------------|---|
| 1. Climate and Weather | Explore the difference between climate and weather. [10 mins] |
| 2. Seasonal Calendar A | Record the climate in your community in a seasonal calendar. [10 mins] |
| 3. Greenhouse Gas Game | Understand the greenhouse effect and global impacts through an energetic game. [30 - 40 mins] |
| 4. Investigation | Find out if climate has changed in your community. [10 mins] |

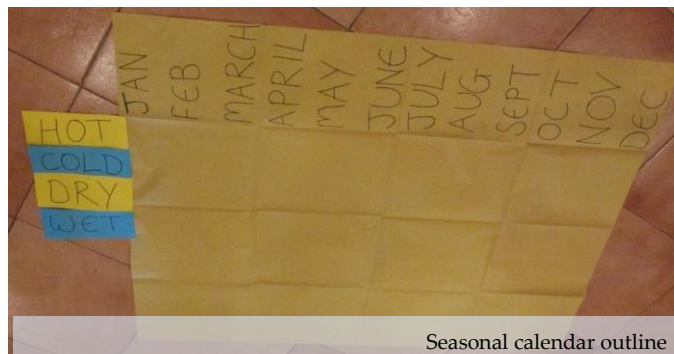
Preparation

Materials

1. Printed 'Climate debrief cards' – [Resources]
2. 1 large sheet of paper for the seasonal calendar
3. 50 small pieces of scrap paper or beans in a container
4. String or chalk to mark out a large circle. IMPORTANT: do not use any materials the players could trip over
5. Sheets of paper – A4 size
6. Markers

To Do

1. On a large piece of paper (stick 2 pieces of flip chart together), make an outline seasonal calendar, as in the image.



Seasonal calendar outline

2. Write the following words on different sheets of paper: HOT / COLD / RAINY / DRY / TODAY'S WEATHER.
3. Write the following sentences on different pieces of A4 paper and stick together:
 - a. My birthday month is...
 - b. 30 years ago
 - c. Was it colder or hotter or the same?
 - d. Was it wetter or drier or the same?

Activity 1 – Climate and Weather

Set-up

1. Place the 'HOT' paper at one end of the room and the 'COLD' paper at the opposite end of the room.
2. Place the 'DRY' paper on one side of the room and the 'RAINY' paper on the opposite side of the room.

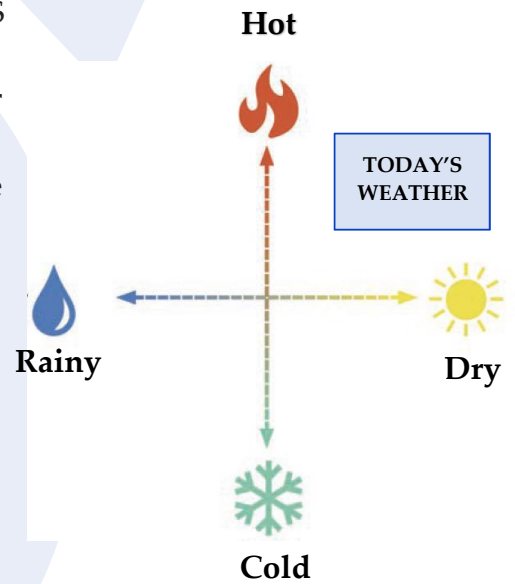
Instructions

1. Explain the difference between climate and weather:

Weather	Conditions like rain, temperature and wind at a time and place
Climate	What the weather is normally like (the average) over a long period of time (more than 30 years) in a specific area

2. Ask the youth to 'answer with their feet' to show the weather right now.
 - a. If the weather is 'hot and dry', stand between HOT and DRY cards.
 - b. If the weather is 'cold and rainy' stand between COLD and RAINY.
3. Discuss until everyone agrees and is standing in the same place.
 - a. Place the 'TODAY'S WEATHER' card where the youth are standing.
4. Ask youth to 'answer with their feet' to show the normal weather on their birthday. Think about as many birthdays as they can remember.
5. Start with the current month. Check to see if everyone with a birthday that month is standing in the same place. If not, ask them to discuss and agree.

6. Ask youth to look at where the 'TODAY'S WEATHER' card is placed.
 - a. Is it the same as the normal weather that month, or different?
7. Ask youth if they remember the difference between *climate* and *weather*. Explain:
 - a. The 'TODAY'S WEATHER' card shows what it is like outside now.
 - b. Where you are standing represents the climate in your birthday months. This is what the weather is normally like, based on as many birthdays as you can remember.



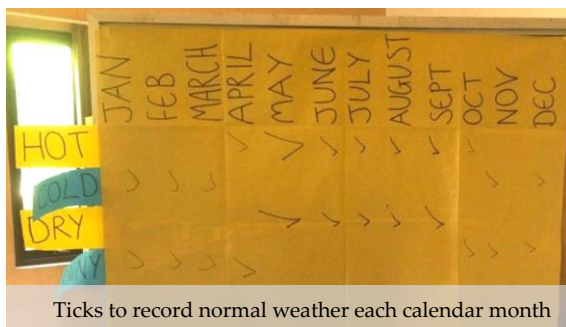
Activity 2 – Seasonal Calendar A

Set-up

1. Youth stay standing on the HOT-COLD-DRY-RAINY grid to show what the weather is normally like on their birthday.
2. Place the seasonal calendar on the floor in the centre of the group.

Instructions

1. Check if youth with January birthdays are standing in the same place to show normal January weather. If not, ask them to discuss and agree.
2. Ask a youth with a January birthday to record the normal weather on the seasonal calendar. For example, if it is normally cold and rainy in January, they tick cold (✓) and tick rainy (✓) under January on the grid.



Ticks to record normal weather each calendar month



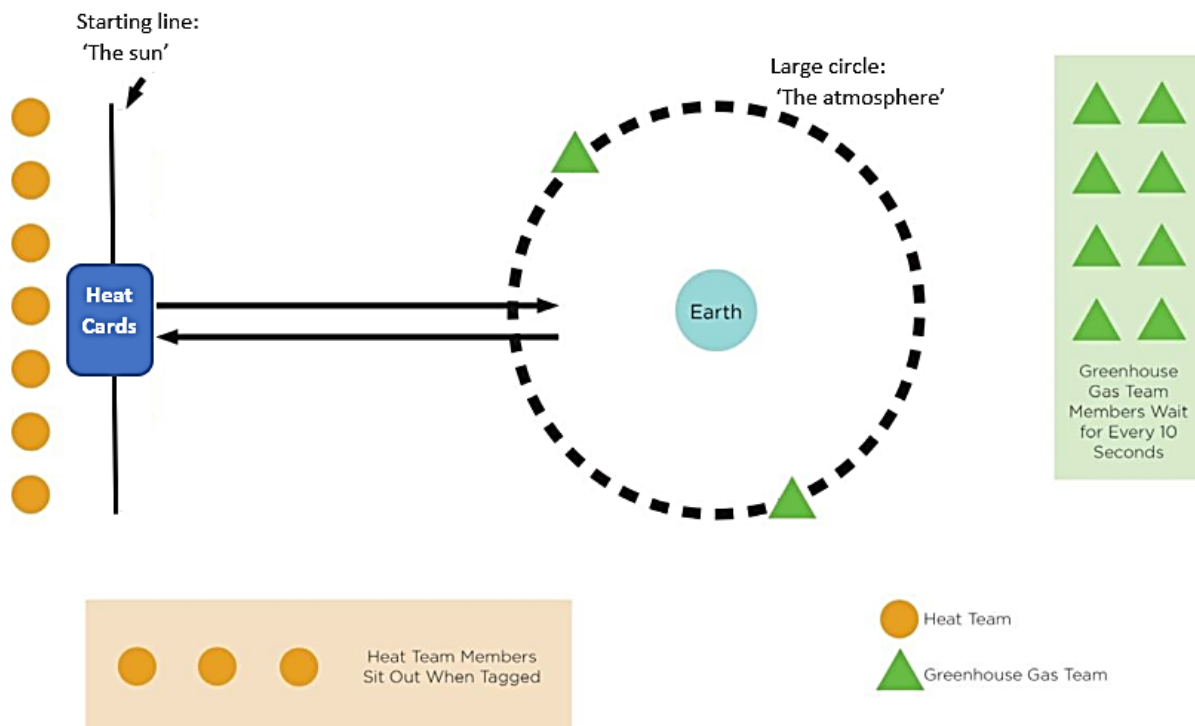
Standing to show normal weather on your birthday

3. Repeat steps 1 and 2 for February. Continue for all remaining months to fill the calendar.
4. If there are months with no birthdays, ask youth to agree on the normal weather and a volunteer to record it in the calendar.
5. Explain: We have created a seasonal calendar that shows the normal weather or climate each month in your community. We will return to this calendar later to show the changes over time.

Activity 3 – Greenhouse Gas Game

Set-up

1. Holding hands, youth form the largest circle possible. Release hands and take two steps back.
2. Mark the outside of the circle using chalk or string.
3. Put the small circle in the centre of the large circle.
4. Make a starting line 3-5 metres from the large circle.
5. Put the heat cards in a container on the starting line.
6. If possible, appoint a co-facilitator to help during game play.

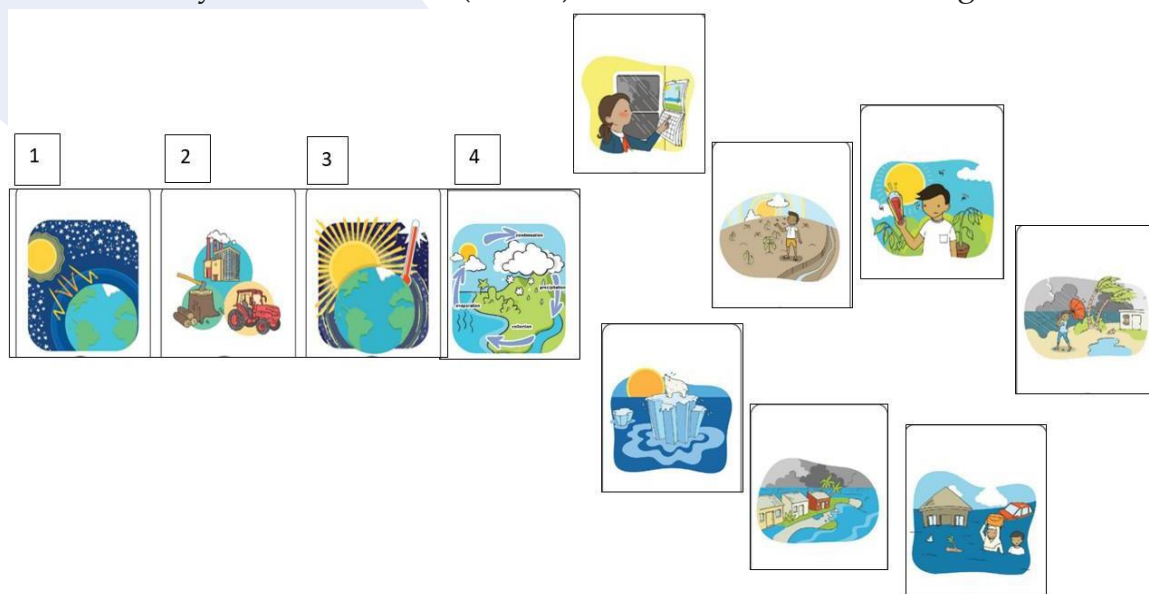


Instructions

1. Explain that the team with the most heat cards at the end wins.
2. In the circle, divide youth into 2 teams and ask them to count off A and B.
 - a. Team A is the 'heat team' and team B is 'greenhouse gas team'.
 - b. Ask youth to stay in the circle while you explain the game.
3. Explain the starting line represents the sun, the large circle represents the atmosphere and the small circle represents the earth.
4. Heat team starts behind the starting line, the 'sun'.
5. Heat team players:
 - a. Grab a heat card from the container on the starting line.
 - b. Run into the large circle to touch the earth with one foot.
 - c. Run back to the starting line area, and give the heat card to the (co)-facilitator.
 - d. Pick up a new card and repeat this as many times as they can.
6. Greenhouse gas team run around the large circle, the atmosphere, trying to tag the Heat team.
 - a. Greenhouse gas team can only tag heat players AFTER they have entered the large circle, touched the earth, and are trying to escape back out.
 - b. Greenhouse gas team MUST always keep both feet on the large circle, facing inwards and moving sideways only.
7. If a heat player is tagged, they give their card to the greenhouse gas team player that tagged them and then sit out.
8. Demonstration: Ask one player of each team to demonstrate the rules.
9. At the start of game 2 greenhouse gas players start on the large circle. The others stand at the side. Every 10 seconds the facilitator adds a greenhouse gas player to the circle.
10. The game ends after 3 minutes.
11. At the end of 3 minutes add up the TOTAL number of cards that the heat team retrieved and gave to the facilitator. This is their score.
12. Heat cards that the Heat team gave to the greenhouse gas players should be returned to the starting line. These do not count towards the scores.
13. Teams swap roles and play again for 3 minutes.
14. Announce the winner.

Debrief

1. Lay out the 'climate debrief cards' in the order of the image below.
2. Ask the youth:
 - a. What did you experience playing this game?
 - b. What do you think this game represents?
3. Using the 'climate debrief cards', have a mini-lecture to explain what the game represents. Read cards 1 to 4 first to describe the greenhouse effect (card 1) being impacted by human activities (card 2), leading to global warming (card 3), which intensifies the water cycle and impacts our weather systems over time (card 4) and leads to climate change.



4. Ask youth to name extreme weather events and hazards that are happening more often or becoming bigger due to climate change. Ask them to look at the images for ideas!
5. Discuss that extreme weather events can be rapid onset events, such as heavy rain leading to flooding, or slow onset events, such as extreme heat leading to drought.
6. Recap the sequence of the greenhouse effect to hazards going through each picture consecutively.
 - a. As you talk, ask youth to give the key terms i.e. 'greenhouse effect', 'human activities', 'global warming', 'water cycle', 'climate change'
7. Ask one youth to volunteer to lead the recap themselves.

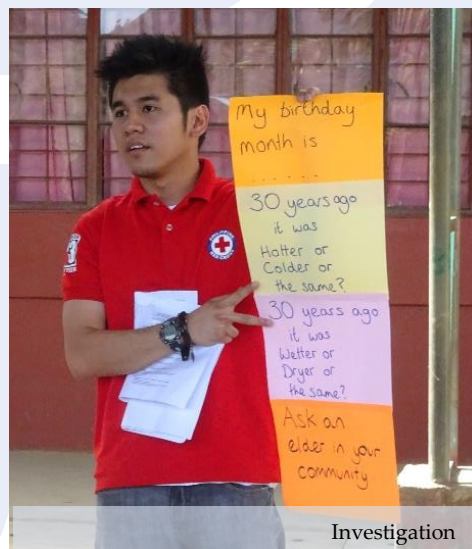
Activity 4 – Investigation

Set-up

1. Stick the prepared investigation questions up next to the seasonal calendar.

Instructions

1. When youth go home, they should ask elders the investigation questions. Make sure they write down their answers to bring to the next session.
 - a. For example, if the youth's birthday is in January, they would ask:
 - Was January hotter or colder or the same, 30 years ago?
 - Was January wetter or drier or the same, 30 years ago?



Session 2 Closing

1. Congratulations we have completed Session 2 of Y-Adapt!
2. We have learned the difference between weather and climate.
3. We have seen how human activities releasing greenhouse gases leads to climate change, which exacerbates extreme weather events and hazards around the world (makes them bigger, or happen more often.)
4. In the next session, we will look at the impacts of climate change at the local level in your community.