



## One Earth, One Chance

Hello Everyone!

This is Anita again. We have already created 4 games in Scratch, each with a distinct mission to help us in saving our earth. Now that you are an experienced game developer in Scratch, it is time for you to create your own game. I will set out the background for this game which we will refer to as the capstone project and provide information to help you understand the background. I will then give you pointers for creating the game so that you can use your skills and creativity to develop a great game to play with your friends and create awareness about the UN SDG 13 relating to Climate Change. Let us get started with the background.

Imagine that it is the March of 2060. Ideally the winters in the Northern Hemisphere and the summer in the Southern Hemisphere should be on the wane. However, our Earth is reeling under the severe effects of 'global warming' and 'polar vortex'. To know more about global warming and polar vortex, please do research about the topic or feel free to ask your teacher.

The challenge we have at our hand is - Countries from North America in the Northern Hemisphere are facing an intense cold wave with temperatures around -30 degrees centigrade and heavy snowfall, dense smog and rising cases of an unknown flu. On the other hand, the inhabitants of Australia and parts of Africa in the Southern Hemisphere are facing an intense heat wave with temperatures around 50 degrees centigrade, drought and forest fires emitting plumes of smoke raising pollution levels.

Let me describe the distinctive features of the northern and southern hemispheres in more detail for you. The Northern Hemisphere is 60.7% Water and 39.3% Land Mass while the Southern Hemisphere is 80.9% Water and 19.1% Land Mass. The Northern Hemisphere has more trees while the Southern Hemisphere has less trees. 90% of the human population resides in The Northern Hemisphere while the balance 10% of the human population resides in the Southern Hemisphere.

Hence, the Northern Hemisphere is more industrialized with high levels of pollution while the Southern Hemisphere has very few industries and comparatively lesser levels of pollution. The Northern Hemisphere experiences the winter season from December to March and the summer season from June to September. The Southern Hemisphere experiences the winter season from June to September and the summer season from December to March.

Let me summarize the distinctive features of both the hemispheres in a table for your reference.

<b>Distinctive Features</b>	
<b>Northern Hemisphere</b>	<b>Southern Hemisphere</b>
60.7% Water 39.3% Land Mass	80.9% Water 19.1% Land Mass
More trees	Less trees
90% of human population resides	10% of human population resides
Heavily industrialised	Sparsely industrialised
High level of pollution	Comparatively less pollution
Winter: December - March Summer: June - September	Winter: June – September Summer: December - March

That is a lot of information.

Now let me give you few suggestions for creating your capstone game.

- The mission of the game will be to normalize the extreme environmental conditions on the earth in both the hemispheres as much as possible and to reverse the effects of climate change with the elements and resources provided. We should make both the hemispheres livable.
- Choose the hemisphere and select the issue that you would like to address and create a simple game around it. You can be creative to create a multi-level game and address multiple issues.
- Use scenes to depict heavy snowfall, smog and many flu patients for Northern Hemisphere.
- Similarly depict scenes to show drought and forest fires emitting plumes of smoke raising pollution levels for Southern Hemisphere.

- Create sprites like trees, industries, doctors, nurses, makeshift clinics to tackle flu, fire engines, helicopters to spray water on forests, ambulance, cars, buses, air purifiers, etc to tackle the issue. Feel free to create any other sprites with a different action scene to showcase your creativity
- Build a temperature indicator that increases or decreases depending on the action scene till an optimum temperature is attained.
- Decide on the award you would like the player to earn – may be a pollution control badge or a medal on the successful completion of action scenes - when the temperature in the northern hemisphere is brought down to 2°C and that in the southern hemisphere to 30°C.

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Apply all your learnings and the information that I gave you to develop a great game. Enjoy yourself and keep getting better at game development.

All the best. Bye-bye!