

SPOTLIGHT ACTIVITY 4: EARTH EXPLORER

AIM: Children explore how the different effects of global heating and climate change intersect and influence each other. By exploring changes in ecosystems, children draw links between environmental changes and impacts on a child's right to health.

Preparation:

- Review the spot the difference activity and climate link prompts for direction and discussion

Facilitator Materials & Resources

- Activity PowerPoint 4, including Spot the Difference activity
- Hat to wear for leading activity
- Prepared "Earth Explorer" badge to show as an example
- Paper chain materials for optional interactive activity

Participant Materials

- Any hat or head covering (or a hat folded from paper)
- Paper
- Pen or pencil
- Colour markers or crayons
- Children's scissors
- Tape or pin to attach to hat



Facilitator Introduction

From the story of Paddington, we know that Paddington had learned about London as a cub because of an explorer called Montgomery Clyde. Montgomery Clyde had been sent to visit and learn about the jungle of Peru by the Geographer's Guild of London. On that trip he met Paddington's Aunt Lucy. The explorer, Mr. Clyde, wore a red explorer's hat on his journey and gave this hat as a gift when he left Peru. This red hat is the explorer's hat that Paddington now wears.

We also know that Paddington is a very curious bear. In this lesson, we are going to be very curious like Paddington to learn more about climate change – what are some things that can cause the climate to change, and what are some of the effects this has on the earth and on people? To get ready, we must first all put on our hats to remind us that we are curious explorers.

Next we will look at different areas on the earth that have unique climates – called ecosystems – to see if we can spot how they are changing. Finally, we will explore how these changes link to our health and a healthy environment.



SPOTLIGHT ACTIVITY 4: PART 1: EXPEDITION EARTH

1. Introduce the activity with the tie-in to Paddington and the story of Montgomery Clyde the explorer. Ask children to put on the hats that they have brought to the lesson. If a child does not have access to a hat, they can [fold a hat from a piece of paper](#) or newspaper.

2. Introduce the idea of an ecosystem as a system of living and non-living things in a particular area. This includes all of the plants, animals and other living things that make up the communities of life in an area, plus all of the non-living material like water, rock, soil and sand. Explain that the actions of people increase global heating and that climate change can lead to changes in ecosystems that affect the living things in these systems. All of these systems eventually link to children, and their ability to grow up in a healthy environment.

3. Review Article 24 of the UNCRC with the group before beginning the exercise to reinforce that ensuring a healthy environment is a critical part of ensuring a child's right to health.

4. Share that, as "Earth Explorers", we are going to play a game called "Spot the Difference". Explain that in the presentation we will look at four different pictures. Each of these pictures is an ecosystem.

5. Displaying the first image, encourage the children to spot the differences between the 'before' and 'after' images. Each one of these differences tells a story about the science of climate change and how it links to your right to good health.

6. Work through each of the four sets of 'before' and 'after' ecosystem pictures in the PowerPoint activity. Throughout the process of spotting the differences, prompt the children with questions related to the differences they see. For example, why do you think all the animals are gone from the image?



SPOTLIGHT ACTIVITY 4: PARTS 2 AND 3



Part 2: Making the links

1. After completing the spotting the differences activity, lead the children in a discussion focused on being curious around climate and science, helping the children discover how the differences they've spotted are all links (causes and effects) in a chain of climate events that impact a child's right to a healthy environment.
2. Walk the children through one example, choosing one change they spotted in one of the ecosystem pictures and prompt them to map out linkages. For example, children have spotted that the watering hole has disappeared from the desert ecosystem. Ask the group "what may have caused [all the water to dry up]" and "what affect might this change [the lack of water] have". Continue prompting until children have established an understanding of the linkages and reach the point where they can think of how the impacts could affect their right to health and well-being. (See Facilitator Link Examples/Prompts).
3. What do they think might happen if we were able to disrupt this chain?

Interactive Option: Have children create a [paper chain](#) of the links of climate impacts and influences. Begin by creating one link and write the difference discovered from the ecosystem activity on it. As you identify links (either causes or effects) on either side, write one per slip and attach to the existing link until you make a chain. See if you can get your chain to link all the way to an impact that affects children's health. (See Facilitator Link Examples/Prompts).

Part 3: Earth Explorer Badge

1. Finish the activity by giving children time to draw, colour and cut out an "Earth Explorer badge" on a piece of paper that they can fix to their hat to signal the completion of their expedition. Encourage the children to design the badge based on an idea that they learned or liked from the lesson. Show an example on your own hat that you have prepared in advance.

SPOTLIGHT ACTIVITY 4: FACILITATOR PROMPTS: SPOT THE DIFFERENCE LINKS

(Note: These are examples only, there are many different links that could be drawn. The key objective is to help children make the connection that climate change has many impacts and ultimately impacts a child's right to health).



OCEAN

Global heating -> melting icecaps -> **Higher water level** -> Flooding -> Pollution of fresh water sources -> children get sick with waterborne disease

Poor rubbish systems and littering -> **Plastic and trash pollution** -> toxins in ocean -> contaminated fish -> affects food supply -> affects children's nutrition

Pollution in ocean -> **Fewer fish / Coral Reefs different white** -> affects the food chain (small fish can't eat) -> big fish don't have small fish to eat -> affects our food sources

DESERT

Hotter weather in the desert -> **Dries up water sources** (both the water table underground and the watering hole for animals) -> Animals and people are forced to migrate -> Animals moving to other eco-systems where people live bring introduce new diseases that people are not immune to -> children and their families get sick. Changes in the desert can lead to more people being displaced and ending up in cities, increasing urban populations.

JUNGLE

Temperatures increase from global heating -> wildfires become more common -> Wildfires destroy habitats of animals and create smoke and air pollution -> Sources of food are destroyed and **animals go hungry or are forced to move to other habitats where people live** -> animals living in new places bring new diseases -> diseases impact children's health

Deforestation (cutting the trees down and building a road to transport them out) also increases global warming as trees are important to store excess carbon on the planet in order to help keep the earth's temperature down, and changes in the jungle can lead to more people being displaced and ending up in cities, increasing urban populations.

CITY

People migrate to cities because of disasters or climate risks -> cities become more crowded -> more people creates more pollution -> they create more rubbish, more and more cars get added to the streets, new buildings must be built to accommodate people -> **so parks and green spaces are taken away** -> changes all create an environment with air that is not healthy for children to breathe -> increased pollution also creates more global heating, which makes the problem continue (this could actually link to a circle)