YUVA
for all living beings

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ÇOK AMAÇLI ERKEN ÇOCUKLUK EĞİTİMİ MERKEZİ

A MODEL AND EXAMPLES OF ACTIVITIES DEVELOPED FOR **CLIMATE CHANGE EDUCATION IN EARLY CHILDHOOD**

This booklet proposes a model that can be used in climate change education in early childhood education and includes examples of activities. The target audience of the booklet is preschool teachers and classroom teachers who teach children between the ages of 5 and 8.

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KEY ISSUES RELATED TO CLIMATE CHANGE

WHAT IS CLIMATE?

Although weather and climate are related concepts, they are different from each other. Weather refers to events such as hot, cold, rainy weather in a small region in a short period of time. Climate, on the other hand, is defined as the average weather conditions that do not change for many years within a large region[1] For example, weather can be cloudy one day and sunny the next, but climate does not change from day to day.

The atmospheric properties that make up the climate of a place are formed by the combination of climate elements such as insolation, temperature, pressure, wind, precipitation, cloudiness and evaporation at various rates. The factors affecting climate elements, in other words, the factors affecting climate formation are the effect of latitude, the effect of land and seas, the effect of height, the effect of landforms, the effect of vegetation and the effect of sea currents.[2] Climatology is the branch of science that studies weather events and climate types seen on earth, and scientists who conduct research in this field are called climatologists. As in every field of science, different climatologists have different views in the field of climatology. For example, different classifications developed by different climatologists are used in the classification of climate types. One of these classifications is mathematical climate zones

The tropical belt is known as the tropical belt, the middle belt and the polar belt according to the angle of incidence of the sun's rays on the earth. Another well-known classification is the one based on temperature, where the belts are named as the warm belt, the temperate belt and the cold belt.

Turkey is located between the warm and temperate belts. However, different climate types have emerged due to the fact that our country is surrounded by seas on three sides, the extension of the mountains and the diversity of landforms. The climate types in our country are as follows: Continental Climate, Black Sea Climate, Mediterranean Climate and Marmara Climate[3] Each climate type has its own characteristics.

1 - MGM, n.y. Weather and Climate. Retrieved August 11, 2023, from https://www.mgm.gov.tr/iklim/iklim.aspx?key=B

2 - Ibid

3 - General Directorate of State Meteorological Affairs, n.y. Climatology II, Retrieved August 11, 2023, from https://www.mgm.gov.tr/FILES/iklim/klimatoloji2.pdf

WHAT(S) IS THE CAUSE(S) OF CLIMATE CHANGE?

As we all know, our world is surrounded by a layer of atmosphere. Our atmosphere consists of gases called greenhouse gases such as carbon dioxide, methane, water vapor, ozone, nitrous oxide, etc. Almost half of the sun's rays coming from the sun to the earth are reflected from the earth, and due to the greenhouse gases in the atmosphere, some of the reflected sun rays return back to the earth. In this way, the average temperature on earth remains at a level that allows humans, animals and plants to survive. If there were no greenhouse gases, the average temperature of the earth would be around -18°C. This natural effect of greenhouse gases is called the greenhouse gas effect.[4]

The system that maintains the earth's temperature balance works as described above. However, with the beginning of the industrial revolution, i.e. mechanization, changes have occurred and are occurring in the system that maintains the earth's temperature balance. There has been a rapid increase in the rate of greenhouse gases in the atmosphere due to reasons such as increased use of fossil fuels, industrialization, rapid population growth, nuclear weapons tests, destruction of forests to open up agricultural land, improper land use, and people shifting their living spaces to big cities[5]. The increase in greenhouse gases causes the sun rays coming to the earth and reflected from the earth to be held in the atmosphere at a higher rate and naturally causes the temperature to increase. This temperature increase is called global warming. Global warming also brings climate change.

4 - WWF, https://www.wwf.org.tr/ne_yapiyoruz/iklim_degisikligi_ve_enerji/iklim_degisikligi/

5 - Turkish Space Agency, Climate Change, https://tua.gov.tr/tr/blog/dunya/iklim-degisikligi

EFFECTS OF CLIMATE CHANGE

The climate is changing because of what humanity is doing consciously or unconsciously. So what does climate change cause? The United Nations has published the causes and effects of climate change on its website. Below, the effects of climate change explained by the United Nations will be briefly mentioned.[6]

First of all, the extreme hot weather we all experience our daily lives can be shown among the effects of climate change. As greenhouse gas concentrations increase, so does the global surface temperature. The last decade has been the hottest on record and temperature records continue to be broken every year. Almost all land regions are experiencing hotter days and heat waves. Forest fires can start more easily with warmer weather and spread faster when conditions are warmer.

In addition to extreme temperatures, there will be more severe storms, hurricanes, cyclones and typhoons. Droughts are another event that climate change will cause. Droughts can also trigger devastating sand and dust storms that can carry billions of tons of sand across continents. Deserts are expanding and there is less land available to grow food. Many people now face the threat of not having enough water on a regular basis.

Warming ocean waters and rising ocean and sea levels are among the impacts of climate change on humanity. The ocean absorbs most of the heat from global warming. The rate at which the ocean is warming has increased strongly at all depths in the last two decades. As the ocean warms, its volume increases as the water expands. Melting ice sheets are also causing sea level rise, threatening coastal and island communities. In addition, the ocean absorbs carbon dioxide, keeping it out of the atmosphere. But more carbon dioxide makes the ocean more acidic, endangering marine life and coral reefs.

6 - https://www.un.org/en/climatechange/science/causes-effects-climate-change

EFFECTS OF CLIMATE CHANGE

With all these effects of climate change, living life on earth is under serious threat. Many plants and animals have already become extinct and continue to become extinct. Worsened by climate change, the world is losing species at a rate 1,000 times higher than at any other time in recorded human history. One million species are at risk of extinction in the next few decades.[7] Forest fires, extreme weather and invasive pests and diseases are among the many threats associated with climate change. Some species will be able to relocate and survive, but others will not.

Hunger and malnutrition are other threats facing living beings due to climate change and the resulting weather events, droughts and changes in ocean/sea water temperatures and levels. In many parts of the Arctic, changes in snow and ice cover have disrupted food sources from herding, hunting and fishing. Reduced water and pastures for grazing can lead to lower crop yields and affect livestock. Climate change also increases the risk of poverty for people. For example, floods can destroy homes and livelihoods. Hot weather can make it difficult to work outdoors. All this can lead to poverty and forced migration. Most refugees come from countries that are most vulnerable to the impacts of climate change and least prepared to adapt.

One of the greatest threats facing humanity is the threat to health. Climate impacts are already harming health through air pollution, disease, extreme weather events, forced displacement, pressures on mental health, and increased hunger and malnutrition where people cannot grow or find enough food. Environmental factors claim the lives of around 13 million people every year.[8] Changing weather patterns spread disease, extreme weather events increase mortality and make it harder for health systems to keep pace.

7 - PBES, https://www.ipbes.net/global-assessment

8 - https://www.un.org/en/climatechange/science/key-findings

CLIMATE CHANGE AND CHILDREN

Crises caused by climate change are known as climate crises. The title of Unicef's report published in 2019 is as follows: The Climate Crisis is a Children's Rights Crisis![9] Because yesterday's and today's adults have overstepped key limits in the Earth's natural system, children are forced to make their way in a world that will become much more dangerous and uncertain in the coming years. In addition to the dangers and uncertainties for children's futures, almost every child living on Earth today is exposed to at least one of the dangers, shocks and stresses caused by climate change. For example, nearly 90% of the world's children are exposed to air pollution. One in three children are exposed to heat waves, water scarcity and lead pollution. One in four children are exposed to infectious diseases such as malaria and dengue fever due to the effects of climate change (the proliferation of disease-transmitting mosquitoes and other pathogens), one in six to cyclones (severe storms), one in seven to river flooding and one in ten to ocean flooding. And for children, these struggles create a water crisis, a health crisis, an education crisis, a protection crisis and a participation crisis. It threatens the survival of children.[10] In all these ways, children's rights as outlined in the United Nations Convention on the Rights of the Child are being violated.

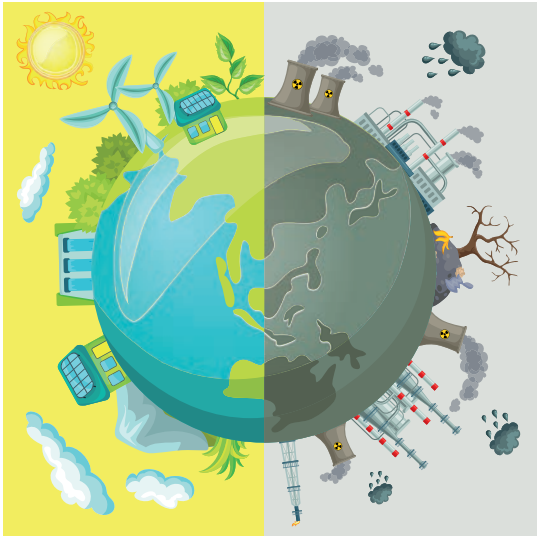
9 - https://www.unicef.org/reports/climate-crisis-child-rights-crisis

10 - https://www.unicef.org/reports/climate-crisis-child-rights-crisis

MITIGATING AND ADAPTING TO THE IMPACTS OF CLIMATE CHANGE

The biggest factor causing climate change is the greenhouse gases released into the atmosphere due to the use of fossil fuels. Therefore, the first step in tackling climate change is to stop using fossil fuels and reduce the emission of greenhouse gases as much as possible. This includes reducing greenhouse gases from major sources such as power plants, factories, cars and farms. Forests, oceans and soil also absorb and store these gases and are an important part of the solution. Reducing and avoiding our emissions requires us to reshape everything we do, from how we power our economy and grow our food, to how we travel and live, and the products we consume. This is a problem felt locally and globally.[11]

But we should not forget that even if we stop emitting all greenhouse gases today, global warming and climate change will continue to affect future generations.[12] Thinking about this situation is a bit can be depressing and painful. However, it is important that we take hopeful action to mitigate the effects of climate change.



As humanity, it is our imagination and ability to work together that allows us to have a voice in the world.[13] And it is our imagination and ability to work together that is needed to tackle climate change. As an example of imagination and the ability to work together, in 2015 world leaders agreed on seventeen global goals to build a greener, fairer and better world by 2030 (global goals)[14] . One of these global goals is climate action, which means taking urgent action to combat climate change and its impacts.

This includes education, awareness raising and human and institutionalaction on climate change mitigation, adaptation, mitigation and early warning. Building knowledge and capacity to tackle climate change with the help of capacity building is an objective under the climate action goal. In other words, education is crucial to promote climate action.[15]

11-https://www.eea.europa.eu/en/topics/in-depth/climate-change-mitigation-reducing-emissions#:~:text=Mitigating%20climate%20change%20means%20reducing,important%20part%20of%20the%20solution.

12 - https://climate.nasa.gov/solutions/adaptation-mitigation/

13 - Harari, Y. N. (2022). Unstoppable Humanity, Kolektif Kitap

14 - https://www.kureselamaclar.org

15 - https://www.unesco.org/en/climate-change/education

THE IMPORTANCE OF EDUCATION IN MITIGATING AND ADAPTING TO CLIMATE CHANGE

It is widely recognized that climate change is one of the major threats of our time and that education is essential for climate change mitigation and adaptation, but what kind of climate change education should it be?

The Action for Climate Change Empowerment (ACE) report, published jointly by UNESCO and UNFCC, describes education as one of the elements of ACE as follows: "Education aims to bring about deep, long-term changes in understanding, especially among young people. Education aims to develop curricula, train trainers and teachers, and includes appropriate pedagogies.[16] " On the other hand, Reid (2019)[17], discussed the issues of consensus and non-agreement in climate change education - as well as how to deliver climate change education, noting that uneducated people are graduating because climate change needs to be adequately covered in the curriculum[18] While climate change topics are often covered within the science or geography curriculum, Eilam (2022) noted that climate change topics are often treated as a hot potato, thrown from one subject to another and not owned by any of them[19]. In this case, it is important for teachers to be willing to include climate change in their lessons and to be knowledgeable about it. Research has shown that pre-service teachers have misconceptions and misunderstandings about climate change. In addition, they do not include climate change issues in their courses due to lack of experience and resources and because it is outside their area of expertise.[20]

16 - UNESCO and UNFCC (2016). Action for climate change empowerment. In Guidelines for Accelerating Solutions through Education, Training and Awareness-Raising; UNESCO Publishing: Paris, France; UNFCC Publishing: Bonn, Germany, 2016.

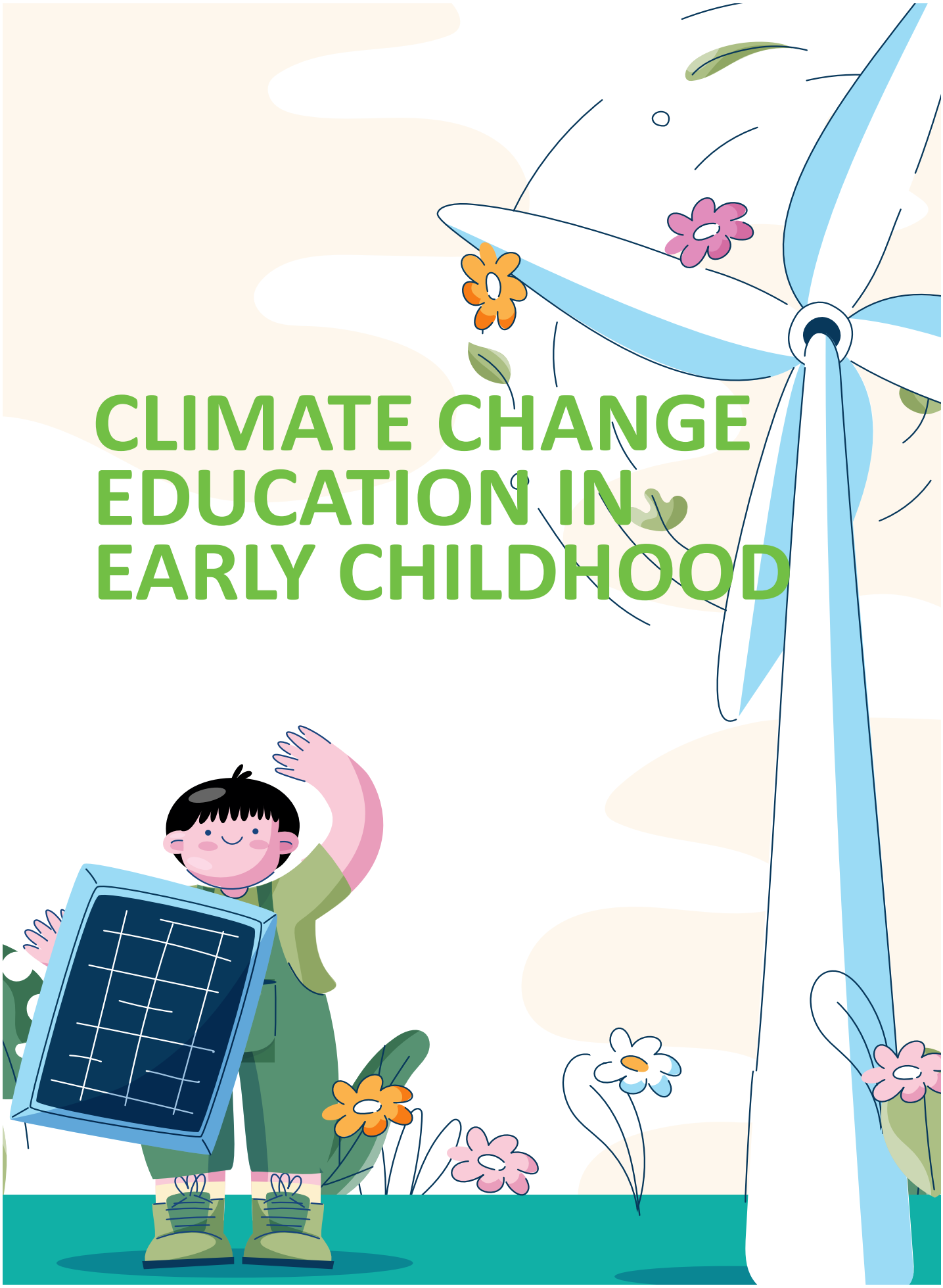
17 - Reid, A. (2019). Climate change education and research: possibilities and potentials versus problems and perils? In Environmental Education Research (Vol. 25, Issue 6). https://doi.org/10.1080/13504622.2019.1664075

18 - https://www.schooleducationgateway.eu/en/pub/viewpoints/surveys/survey-on-climate-education.html

19 -Eilam, E. (2022). Climate change education: the problem with walking away from disciplines. In Studies in Science Education (Vol. 58, Issue 2). https://doi.org/10.1080/03057267.2021.2011589

20 - https://www.schooleducationgateway.eu/en/pub/viewpoints/surveys/survey-on-climate-education

CLIMATE CHANGE EDUCATION IN EARLY CHILDHOOD



CLIMATE CHANGE EDUCATION IN EARLY CHILDHOOD

DEVELOPMENT OF EARLY CHILDHOOD CLIMATE EDUCATION MODEL AND PREPARATION OF ACTIVITIES

In order to answer the question of how climate education should be in early childhood education, this study proposes an education module system. The development of the modules focuses on the idea of children getting to know the climate through experiential learning. The main targeted achievements of the project are as follows:

1. Children can define or express the concept of climate.
2. Children can explain the effects of climate on the life of living things.
3. Children can explain the effects of humans on climate.

After the gains were identified, themes and concepts were studied under three different modules. The themes and concepts that emerged within the scope of this study are given in Figure 1.

After determining the themes, meetings were organized with active preschool teachers to develop activities for the concepts. The activities developed will be presented in the next section of the booklet.

EFFECTS OF CLIMATE CHANGE

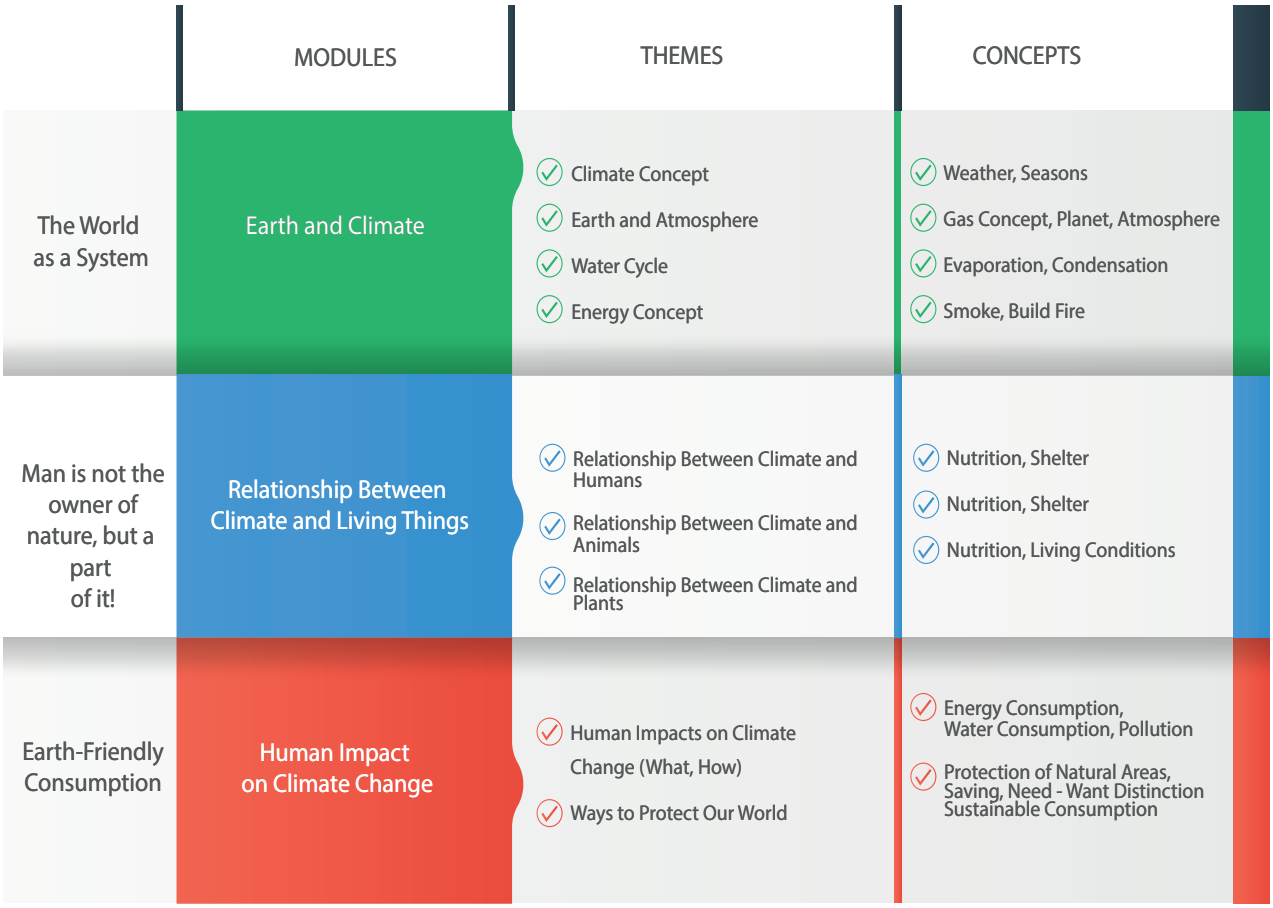


Figure 1: *Early Childhood Climate Education Model*

LITTLE METEOROLOGISTS

Event Theme	Concept of Activity
Theme 1: Climate Concept	Condition / Seasons
Activity Type	
Turkish, Literacy, Science and Mathematics, Drama (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-5 years old	45 + 45 min

Learning Process	Gains and Indicators
Preliminary Preparation The teacher prepares posters or posters of the seasonsbefore-hand. At the same time, for the game they will play, visuals describing the seasons (summer, fall, winter, spring, represent-ative sea, flowers, snow, yellowingleaves, fruits and vegetables of that season, etc.) are selected, picture cards are created in advance and placed in a cloth bag. **Learning Process** • At the beginning of the activity, the teacher shows the poster of the seasons to the children and talks about the seasons. ***Which season is it? Which is your favorite sea-son? Why?*** How do we dress in the current season? Which fruits and vegetables grow in this season? How is the air temperature in this season? The conversation is continued with questions and the posters are hung in the classroom. • Children are made to watch a weather recording prepared in advance for their region and are stopped in between to draw attention to what the announcer says and the symbols. Concepts such as temperature, degree, season, seasonal norms etc. are repeated. • Children are shown a thermometer. They are given the opportunity to examine it and make guesses about what it does. By saying that the thermometer is used to measure the temperature of the air, attention is drawn to numbers and the concept of degrees. Where is a thermometer used? Who uses them? questions can be asked. • Children are asked who is meteorologist? (They are told that they are scientists who predict the weather conditions long in advance, they use instruments to measure the temperature of the air, the speed of the wind, how much it rains, the thermometer is one of them and it measures the temperature). • After introducing the thermometer and the meteorologist, children are taken to the garden. In the garden, children are guided to feel the air temperature with their skin, to feel the wind, and to feel the sun and rain if there is sun or light rain.	**Cognitive Development** **Gain 1:** Pay attention to the object / situation / event. (Focuses on the object / situation / event that needs attention.) **Gain 2:** Makes predictions about the object/situation/event. (Gives clues about the object/situation/event. Makes a pre-diction by combining the clues. Examines the real situation. Compares the prediction with the actual situation.) **Outcome 10:** Reads visual materials (Examines visual materials. Explains visual materials. Answers questions about visual materials). **Outcome 13:** Recognizes symbols used in daily life. (Shows the symbol appropriate to the given description. Tells the meaning of the symbol shown.) **Gain 18:** Explains the concepts related to time. (Sorts the events according to the time of occurrence. Explains the concepts related to time in accordance with their meaning. Explains the functions of time reporting tools). **Gain 20:** Prepares an object graph (Creates a graph by showing objects with symbols. Counts the objects or symbols that make up the graph. Explains the results by examining the graph). **Language Development** **Outcome 8**: Expresses what he/she listens/watches in various ways. (Exhibits what he/she listens/watches through drama.) **Outcome 12**: Shows awareness of writing (Shows the writings around him/her). Social Emotional Development **Outcome 3**: Expresses himself/herself in creative ways.(Expresses his/her feelings, thoughts and dreams in original ways.

LITTLE METEOROLOGISTS

Learning Process

- After the teacher and children do sensory work in the garden and talk about which season they are in, they start the game. The teacher explains the game to the children by showing them the cards with visuals representing the seasons.
- The teacher invites a volunteer from among the children, selects a card and tells him/her that he/she will tell which season the visual on the card belongs to without making any noise. The teacher does it first for the children to understand. The other children try to guess which season the image belongs to. It is explained to the children that only gestures will be used- without speaking.

Materials

PC, loudspeaker, thermometer, season posters, cards representing the seasons to listen to the recording of the weather that day

Words & Consepts

Season, meteorologist, degree, temperature weather, yesterday, today, tomorrow, week, month, month, year, fall, spring, summer, winter, rainy, snowy, sunny, etc.

Family Engagement

Families can be asked to place a thermometer in their room or in a part of the house with their children. They are asked to talk about the temperature shown by the thermometer and record it if necessary. Changes in the air temperature in different seasons can be analyzed for a long time.

Evaluation

• What does a thermometer do? Who uses them?
• What other measuring instruments can be used to measure temperature?
• Was it easy or difficult to predict the seasons during the game? Why?
• How are the seasons formed?
• How else can meteorologists predict the weather?
• What other tools can meteorologists use?
• In which season is the air temperature higher?

Adaptation

If there is a child with Attention Deficit Hyperactivity Disorder (ADHD) in the class, he/she can sit close to the teacher during the conversation and help the teacher. He/she can also be given the task of selecting cards during the game.

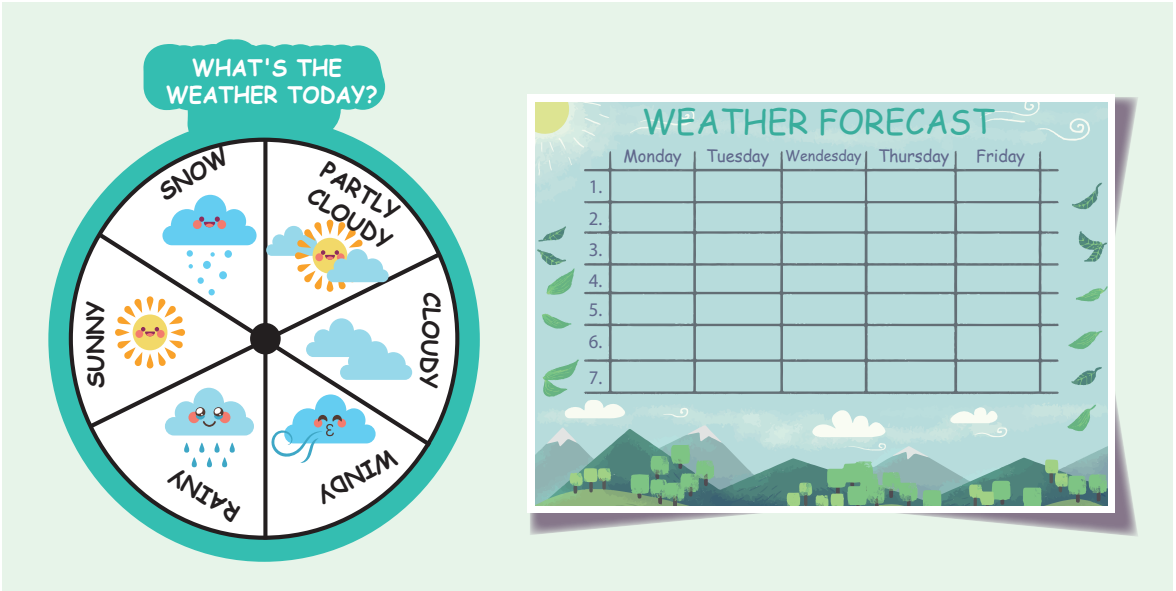
Recommendation

- Every day a meteorologist is chosen in the classroom. The class first analyzes the weather, makes a prediction about the emperature and then tells the result by measuring with a thermometer. Comparisons can be made with the prediction.
- With the thermometer in the classroom, measurements can be made throughout the year and written on a chart to
- track the air temperature in which season.
- A graph of air temperatures according to seasons can be created and concepts such as seasonal normals, above seasonalnormals, below seasonal normals can be discussed. The reasons for these abnormal values can be asked and talkedabout.
- A weather forecast chart can be made for children to follow so that they can play the role of meteorologists.

LITTLE METEOROLOGISTS

Sample Seasons poster

Supportive forecast chart for Junior Meteorologists



Source: *Halenur Kuru Shevik Saturn Class*

WE MUST SAVE OUR WORLD...

WE MUST WORK TODAY FOR A SUSTAINABLE FUTURE

PENGUIN EXPLORES OUR WORLD

Event Theme	Activity Type
Theme 2: Our World and Its Atmosphere	**Turkish, Science Integrated Large Group Activity**
Age Group Event Duration	**Event Duration**
4-5 years old	**45 min**

Learning Process	Gains and Indicators
The bag with celestial bodies (sun, earth, space shuttle, planets, moon and stars, astronaut, etc.) prepared by the teacher and the penguin hand puppet in her hand are brought to the center during circle time and a conversation about our world and the sky is started with the direction of the teacher. The teacher has a penguin puppet who is curious about space. The teacher places a large Kraft paper in the center of the circle. He/she says that he/she will ask the penguin questions about the objects coming out of the bag in his/her hand and when they are answered, they will be placed on the paper. What planet do we live on? (Earth) What warms and illuminates the Earth during the day? (Sun) What illuminates it at night? (Moon and stars) What should we use if we want to travel in space? (Space shuttle) What is a person who walks around in space with special clothes called? (Astronaut) After the answers were received, the teacher asked *https://www.youtube.com/watch?v=JLFyaVd8TO0* to the children, saying that he/she has discovered a song about *https://www.youtube.com/watch?v=JLFyaVd8TO0* and wants to share it with us. The song can be repeated depending on the interest and desire of the children. At the end of the song, the teacher talks about our world and its atmosphere with the help of a penguin puppet. "How high is the sky?" Curiosity is aroused by saying that the penguin gave the book as a gift to our class. The children's answers to the question of the penguin who is curious about the height of the sky are listened to, what they are curious about is discussed and the book is started to be read. During the reading, in order to draw attention to the point where the atmosphere ends, the clothes Pipkin wears and why he wears them are emphasized. It is stated that the sky is unlimited and the atmosphere is limited. The animals and vehicles Pipkin encounters during his journey in the sky are then examined. The poster in the book is examined together with the children and displayed in the classroom for children to examine at any time. Children are told that the earth has an atmosphere around it and that the atmosphere is made up of gases. (Simple breathing exercises such as deep breathing, balloon inflation, exhaling into the glass and creating mist can be done to help them feel the (concept of gas). Discuss that if some of these gases are in excess, they will harm our world. Together with the children, a panel can be created on what we need to pay attention to in our classroom so that these gases do not increase.	**Cognitive development** **Gain 1.** Pay attention to the object/situation/event (Indicators: Focuses on the object/situation/event that needs attention. Asks questions about the object/situation/event that attracts attention. Explains the object/situation/event that attracts attention in detail.) **Gain 17.** Establishes a cause-effect relationship (Indicators: Tells the possible causes of an event. Tells the possible results of an event. **Gain 19.** Produce solutions to problem situations (Indicators: States the problem. Suggests various solutions to the problem. Selects one of the solutions. Gives the reason for the solution he/she chooses. Tries the solution he/she chooses. When he/she cannot reach the solution, he/she chooses a new solution. Suggests creative solutions to the problem). **Language development** **Gain 5.** Uses language for communication (Indicators: Makes eye contact during conversation. Starts a conversation. Continues the conversation. Ends the conversation. Participates in a conversation. Waits for his/her turn to speak. Expresses feelings, thoughts and dreams. Gives reasons for his/her feelings and thoughts). **Social emotional development** **Gain 3.** Expresses himself/herself in creative ways (Indicators: Expresses feelings, thoughts and dreams in original ways. Uses objects out of the ordinary. Creates products with original features.)

PENGUIN EXPLORES OUR WORLD

Materials

How deep is the sky? book, penguin puppet, pictures of the sun, earth, astronaut, space shuttle, moon, stars, planets, Kraft paper, computer and speaker, drawing paper and paints, box or basket

Words & Concepts

Atmosphere, gas, earth, sky, space

Evaluation

- What else have you wondered about our world?
- What would it be like if there was no atmosphere on Earth?
- What causes damage to our world? What can we do to reduce this damage? How do penguins stay warm on glaciers?

Family Engagement

Parents can be asked to watch the day and night sky with their children and talk about what is the same and what is different.

A photo board can be prepared showing the eco-friendly measures they take at home to do less harm to our planet.

Adaptation

A student with attention deficit in the classroom can be positioned close to the teacher during the activity.

Recommendation

- A new activity can be planned on glaciers, the penguin's habitat.
- The board consisting of the precautions taken by families at home can be displayed in the classroom for a while so that they-can see different precautions.





RECYCLING WATER

Event Theme	Activity Type
Theme 3 Water Cycle	Science, Art and Drama Activity Integrated Large Group
Age Group	**Event Duration**
4-5 years old	45 + 45 + 45 min

Learning Process	Gains and Indicators
Preliminary Preparation • Read the book "Little Rain Drop" (İş Bank Publications) about the formation of rain. **Learning Process** • Children are told to imagine that they are a drop of water and to move according to the rhythm of the music. Fastslow orff music is played. https://youtu.be/k-3uZ1G3dak • The clouds gathered together, lightning flashed and slowly the raindrops started to fall on the earth and now they are getting faster and faster" and the instruction continues according to the rhythm of the music. • After the music ends, the children lie on the floor and the musical drama activity is completed by asking them where they want to go as drops of water. • Then the children are taken to the table with the same music. Visuals of the waters on earth are examined. Lakes, streams, rivers, etc. • Talk about the factors in the water cycle. Talk about the sun, evaporation of water, clouds, rain. • Children are given a ziplock refrigerator bag and asked to draw the sun, clouds and sea on it with an acetate pen. • Add some blue-colored water into the sachet. • After closing the mouth tightly, it is fixed to a glass in the sun with the help of tape. • After a while, the water droplets that evaporate with the heat of the sun rise and fall back, giving us the opportunity to observe the rain event as well as the water cycle. • Children are asked to share their observations about the experiment.	**Cognitive development** **Gain 2**: Makes predictions about the object/situation/event (Examines the real situation. Compares the prediction with the real situation.) **Gain 5:** Observes the object or entity (says the name of the object or entity. Tells the color and shape of the object or entity) **Gain 17:** Establishes a cause-effect relationship. (Tells the possible causes of an event. Tells the possible results of an event.) **Gain 18:** Explains the concepts related to time. (Sorts the events according to the time of occurrence Explains the concepts related to time in accordance with their meaning) **Language Development** **Gain 2:** Uses his/her voice properly while speaking (Uses his/her breath correctly while speaking/singing. Adjusts the tone of his/her voice while speaking/singing). **Gain 5:** Uses language for communication (Uses gestures and facial expressions while speaking. Starts the conversation. Continues the conversation.) **Gain 6:** Develops vocabulary (Recognizes new words in listening and asks the meaning of the words. Recalls words and tells the meaning of words. Uses newly learned words in accordance with their meanings

RECYCLING WATER

Materials

Ziplock refrigerator bag, colored acetate pens, tape, blue food coloring or watercolor

Water visuals

Evaporation, water cycle, heat

Family Engagement

At home, boil water in a teapot or pot with the children and observe the movements of the boiling water, the drops of water on the lid and the steam coming out.

Evaluation

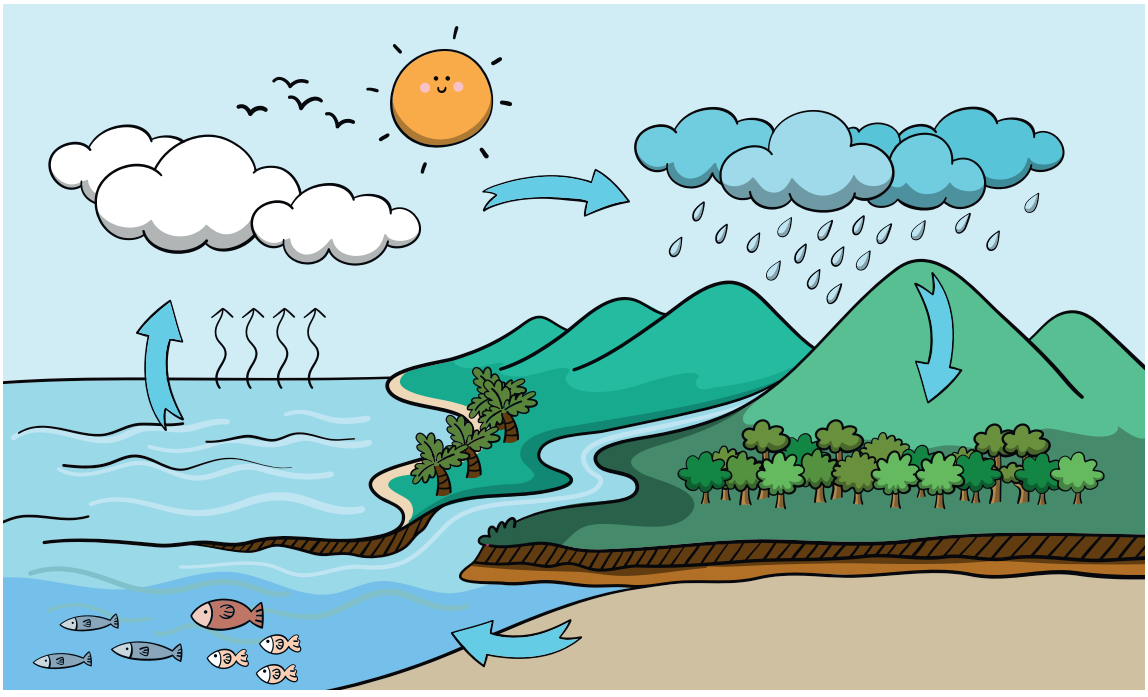
- How did you feel when you became a water drop?
- What events need to happen for it to rain?
- If you were a season, which one would you want to be? Why?
- How do you feel when it rains?
- If you were a small drop of water, where would you want to fall?

Adaptation

If there is a gifted child in the class, the learning environment should be enriched with tools and materials such as lenses, magnifiers and microscopes to support their desire to make observations.

Recommendation

- It is recommended to perform the experiment on a sunny day for better observation.
- Instead of a ziplock bag, a normal transparent bag can be used by taping the opening.



FIRE? SUN?

Event Theme	Activity Type
Theme 4: Energy concept	Science and nature activity (Large group)
Age Group	**Event Duration**
4-5 years old	60 min

Learning Process	Gains and Indicators
Go out with the children to an open area on a sunny day. (It can be a school garden or a playground with a dirt floor.) The children are asked to form a large circle. In the middle of the circle, 2 water containers with the same liter capacity, one glass and the other steel, are placed. The children are told that we want to heat water and after getting their ideas on how we can heat water, the water containers are filled with water. The temperature of the filled water is measured with the help of a thermo-meter and the children are shown that both are the same. The teacher mentions that she can make a fire to heat the water and lights the fire with the wood she has. He puts the steel water container on the fire and places the glass water container in a sunny place. The teacher starts a conversation about the smoke, bad odor and black smoke stains after lighting the fire. Children are asked questions about how they are affected by the smoke: • Does the smell of smoke bother you? • Where else can we see smoke in your neighborhood? • How might these smogs we see be affecting our nature? • What could be the cause of the smoke stain on our water container and how do you think we should clean it? • Where do you think the smoke goes, does it disappear? The teacher draws children's attention to the burning fire and smoke by asking questions such as. After listening to the children's responses, the teacher mentions that the heat energy in the fire heats the water and that the same energy exists in the sun. After the fire burns for a certain period of time, the water container is taken from the fire and the fire is extinguished with the help of water. The smoke coming out is observed. The temperature is measured again with a thermometer in a way that children can see. It is observed how much the temperature difference of the water is. The temperature of water placed in a glass container under the sun can also be measured again. After observing that the temperature of both waters increases, the children are told that smoke harms us, pollutes our nature, our breath and our environment, and that we should prioritize resources that do not harm our environment for our energy needs. After the children are invited to the classroom, the activity is concluded by discussing examples of other sources that produce energy without harming our environment, such as the sun.	**Cognitive development** Pay attention to the object/situation/event (Indicators: Focuses on the object/situation/event that needs attention. Asks questions about the object/situation/event that attracts attention. Explains the object/situation/event that attracts attention in detail.) Makes predictions about objects/situations/events (Indicators: Says his/her guess about the object/situation/event. Explains the clues about his/her guess. Examines the real situation. Compares his/her prediction with the actual situation.) Recalls what he/she perceives (Indicators: Retells the object/situation/event after a while. Says the object that is added or subtracted. Uses what he/she remembers in new situations.) **Gain 5.** Observes objects or beings (Indicators: Tells the name, color, shape, size, length, texture, sound, smell, material, quantity and intended use of the object/asset). **Gain 8.** Compares the properties of objects or beings (Indicators: Distinguishes and compares the color, shape, size, length, texture, sound, smell, material, taste, amount and intended use of objects/entities). **Gain 11.** Measures objects (Indicators: Estimates the result of measurement. Measures with non-standard units. Tells the measurement result. Compares the measurement results with the estimated results. **Gain 17.** Establishes a cause-effect relationship (Indicators: Tells the possible causes of an event. Tells the possible results of an event. Produce solutions to problem situations (Indicators: States the problem. Suggests various solutions to the problem. Selects one of the solutions. Explains the reason for the solution he/she chooses. Tries the solution he/she chooses. When he/she cannot reach the solution, he/she chooses a new solution. Suggests creative solutions to the problem). **Language development** **Gain 5.** Uses language for communication (Indicators: Makes eye contact during conversation. Understands gestures and facial expressions. Uses gestures and facial expressions while speaking. Starts a conversation. Continues the conversation. Ends the conversation. Uses courtesy words in their speech. Participates in a conversation. Waits for his/her turn to speak. Expresses feelings, thoughts and dreams. Tells the reasons for their feelings and thoughts.) **Gain 8.** Expresses what he/she listens/watches in various ways (Indicators: Asks questions about what he/she listens/watches. Answers questions about what he/she listens/watches.

FIRE? SUN?

Materials

2 steel and glass water containers, materials for lighting a fire (wood, stove and lighter), thermometer

Water visuals

Fire, smoke, energy, heat

Family Engagement

Parents are asked to help their children take photos of the objects that emit smoke that the children observe on their way home from school. Children can exhibit the photos they have taken on the school board and talk about environmentally friendly alternatives to these objects.

Evaluation

- How can we generate energy without fire and smoke?
- What are the energy sources we use at home?
- What should we pay attention to so that they do not harm the environment?

Adaptation

If there is a student with ADHD in the class during the time the fire is burning, necessary measures can be taken to protect him/her from the fire.

Recommendation

- A new activity on renewable energy can be planned with the children and a windmill can be built.
- Visuals on the uses of wind and solar energy (solar panels, windmills, etc.) can be prepared and exhibited in the classroom for a while.

HOUSES AND FRUITS

Event Theme	Activity Type
Theme 5: The relationship between climate and people	**Game, Turkish, Science (Integrated Large Group Activity)**
Age Group	**Event Duration**
4-5 years old	**45 min**

Learning Process

- The teacher gathers the children in a circle and turns on some slow music. Now we are traveling in a forest and we are walking slowly, we come across a stream and we can cross the stream by jumping (All children cross the stream one by one). As we continue on our way, we realize that the ground is muddy, our shoes are muddy and we have difficulty walking. After asking why the ground might be muddy, the children's answers are listened to and the road is continued. After a while, the wind starts and the teacher asks what can we do to protect ourselves from the wind and listens to the answers.
- After crossing the windy area, it is sunny and they continue walking in the sun. The teacher says that we might be sweaty from the sun and invites the children to sit in a circle. The children sitting in the circle are asked to look at the mountain with a white cover, why do you think it looks white? After asking this question, the children answer that it is because it is snowing. Different answers are also listened to.
- Does it snow in winter where we live? Do you think it snows everywhere in our country in winter? What is your favorite weather condition and why?
- The climate map of Türkiye is hung on the wall (Annex 2) and examined with the children. The city we live in is shown on the map and children are asked which climate it is in and which weather conditions we see the most in our city. Answers
- After resting, it is explained that climate is effective in determining the weather where we are. By talking about the effect of weather on the clothes we wear; it is explained that climate also has effects on our lives.
- Using visuals of different houses in our country (Annex 1) (Şanlıurfa-Harran houses and Black Sea-wood houses), talk about the effects of climate (In Şanlıurfa, houses that keep cooler are preferred because the weather is very hot, while in the Black Sea, wooden houses are preferred due to the excessive rainfall. By mentioning the characteristics of the province we are in, the qualities of our houses are mentioned).
- The children find the fruit visuals (Appendix 3) that the teacher hid in certain places in the classroom beforehand and bring them to the circle by saying that climate also affects the food we eat. The fruits whose names we know or the fruits we have seen and tasted before are thrown into a basket. The children talk about the fruits they have not seen before and whose names they do not know. Where can these fruits be produced? Why haven't we seen/ tasted them before? How do you think they might taste? Questions such as these are asked to the children to attract their interest. The teacher draws attention to the distance to our country by pasting the pictures of the fruits on the countries where they grow on the world map. It is concluded that we do not know the taste of these fruits because they are grown in different climates and are not suitable for growing in our country.
- Children are given name badges consisting of different fruits grown in our country and invited to the circle. Fruit basket game is played.

HOUSES AND FRUITS

Gains and Indicators

Cognitive Development
Pay attention to the object/situation/event (Indicators: Focuses on the object/situation/event that needs attention. Asks questions about the object/situation/event that attracts attention. Explains the object/situation/event that attracts attention in detail.)

Makes predictions about objects/situations/events (Indicators: Says his/her prediction about the object/situation/event. Explains the clues related to his/her prediction. Examines the real situation. Compares the prediction with the actual situation.)

Gain 5. Observes objects or beings (Indicators: Tells the name, color, shape, size, length, texture, sound, smell, material, taste, amount and intended use of the object/asset).
Gain 17. Establishes a cause-effect relationship (Indicators: Tells the possible causes of an event. Tells the possible results of an event.

Language Development
Gain 7. Understands the meaning of what he/she listens/watches. (Indicators: Fulfills verbal instructions. Explains what he/she listens/watches. Makes comments about what he/she listens/watches.)
Gain 8. Expresses what he/she listens/watches in various ways (Indicators: Asks questions about what he/she listens/watches. Answers questions about what he/she listens/watches. Explains what he/she listens/watches to others.
Gain 10. Reads visual materials (Indicators: Examines visual materials. Explains visual materials. Asks questions about visual materials.
Explains different cultural characteristics (Indicators: Says the characteristics of his/her own country's culture. Explains the similar and different characteristics of his/her own country's culture and other cultures.

Materials

Türkiye's climate map, world map, name badges with fruit images, computer and speakers for music

Water visuals

Climate, nutrition, housing, weather

Family Engagement

Families can be asked to research two fruits that grow in different climates in our country with their children and prepare a slide show explaining details such as the growing and growing process of these fruits, what to pay attention to while growing them, and when the harvest time is.

Evaluation

- Which fruit were you most curious about? Why?
- What else do you think climate affects in our lives?
- Which of the climate features in our country do you like?
- If you could live in another region, where would it be? Why?

Adaptation

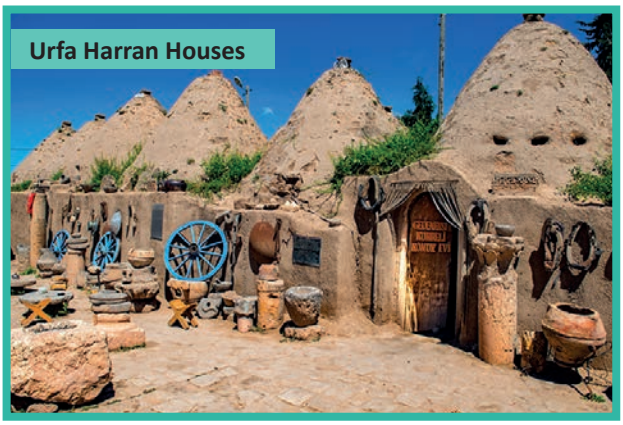
If there is a visually impaired child in the class, he/she can sit close to the teacher and get peer support to understand the fruits.

HOUSES AND FRUITS

RECOMMENDATIONS

- A presentation of visuals of different houses in our country can be shared with the children. Gardens of fruits grown in our province can be visited and examined.
- Different house designs can be created with children. For example, they can be given wooden sticks and asked to design a
- house or they can design a house with mud, clay, etc.

Annex 1: Different house visuals from Türkiye



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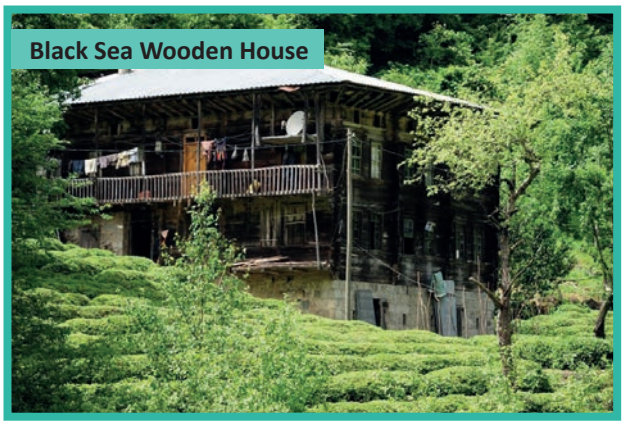

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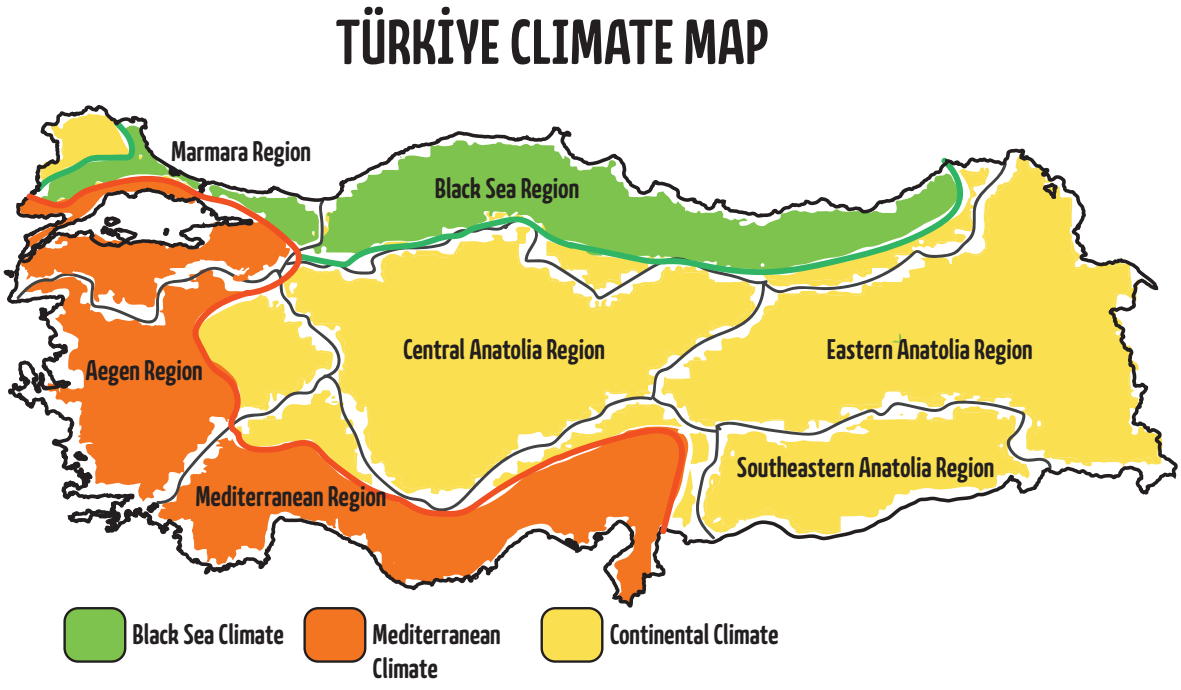
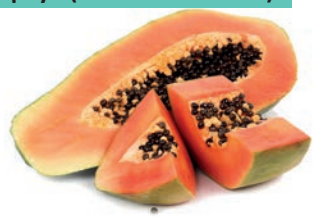
Annex 2



HOUSES AND FRUITS

Annex 3

Papaya (Southern Mexico)



Karambola (Southeast Asia)

Guava (Central America)

Durian (Malaysia-Thailand)

Jackfruit (India)

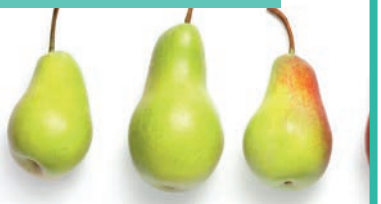
Cherimoya (South America)

Mangostan (Indonesia)

Marula (Africa)

Apple

Pear



Orange

Banana

Apricot

Peach

Plum

CLIMATE AND ANIMALS

Event Theme	Activity Type
Theme 6 The Relationship between Climate and Animals	Science and Art Activity Integrated Large Group Activity
Age Group	**Event Duration**
4-5 years old	120 min

Learning Process	Gains and Indicators
• The teacher prepares a learning center in a corner of the classroom with a map of the animals of the world and Turkey and animal figures. • The teacher says to the children, ""Today you are nature observers and I want us to observe the creatures, insects and animals living in our garden together."" and takes the children to the garden. • Children are given a magnifying glass. They are asked to examine the magnifying glass. They are asked what they can do with the magnifying glass and for what purpose it can be used. The answers are evaluated and the magnifying glass is introduced to the children. • They are asked to draw pictures of living things they observe in the garden. For example: birds, insects, worms, cats, etc. • When they return to the classroom, they are asked which living things they observed and asked to describe the pictures they drew. • Then, which animals are there in our environment? • Which animals are there in the country we live in? • Which animals are there in the world we live in? The answers are discussed. • Drawing attention to the world map, it is pointed out that some animals live in cold climates and some in hot climates and consume appropriate foods. • Then, by drawing attention to the map of Turkey, it is pointed out that animals living in our country live intensely in some regions. Why do you think these animals live in this region?	**Cognitive development** **Gain 2**: Makes predictions about the object/situation/event (Examines the real situation. Compares the prediction with the real situation.) **Gain5**: Observes an object or entity (says the name of the object or entity. Tells the color and shape of the object or entity) **Language Development** **Gain 2:** Uses his/her voice properly while speaking (Uses his/her breath correctly while speaking/singing. Adjusts the tone of his/her voice while speaking/singing). **Gain 5:** Uses language for communication (Uses gestures and facial expressions while speaking. Starts the conversation. Continues the conversation.) **Gain 6**: Develops vocabulary (Recognizes new words in listening and asks the meaning of the words. Recalls words and tells the meaning of words. Uses newly learned words in accordance with their meanings. **Outcome 10:** Reads visual materials.(Examines visual materials, asks questions about visual materials)

Learning Process
• Ex: Why might bees live in these areas? What do bees feed on? What do bees do if there are fewer places for bees to feed? What can we do for the bees? By asking questions such as "What can we do for bees?", the effect of nutrition and living conditions on living things is emphasized. • Children are asked, "Have you ever seen a stork? What kind of life do storks lead? Which climate do they like? Do they always live in the same region or do they go to other countries depending on the climate? With questions such as climate is emphasized on the life of storks." • The effect of climate, nutrition and living conditions on living creatures is shown by asking questions about the animals onthe map of Türkiye.

CLIMATE AND ANIMALS

Materials

Drawing paper, crayons, world map

Water visuals

Climate, glaciers, cold-hot

Family Engagement

- Families can watch a documentary at home with their children about where animals live and how they are fed

Evaluation

- If you were an animal, where would you like to live?
- Which animals did you observe in the schoolyard?
- Where did the animals we know today live?
- If we take animals from a warm climate to a cold climate, can they survive there?
- What do people do to adapt to the season?

Adaptation

- If there is a gifted child in the class, the learning environment should be enriched with tools and materials such as lenses, magnifying glasses and microscopes to support their desire to make observations.

Recommendation

- If there is no map, it can be projected with a smart board or projection device

MY DREAM FRUIT TREE

Event Theme	Concept of Activity
Theme 7: Relationship between Climate and Plants	**Living Conditions**
Activity Type	
Art and Turkish Language (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-6 years old	**60 min**

Learning Process	Gains and Indicators
Preliminary Preparation • Together with the children, the teacher makes a seed jar from an unused jar in the classroom. For a week, they examine the seeds of the fruits they eat in the classroom according to the season and collect them in this jar. • A presentation is prepared with fruit tree-kernel visuals. **Learning Process** • The teacher reads the book titled "Eric Carle Tiny Seed". Question and answer sessions are held to talk about the journey of the tiny seed. • We have a seed jar in our classroom, drawing attention to the seed jar they prepared in class. • The children's attention is drawn by saying, "How about taking the seeds here on a separate journey? • Kraft papers are distributed and they are asked to choose one seed from the seed jar. The seeds they choose are glued to the papers. • You are the seed on this paper, what kind of fruit do you want to be? I want you to draw the fruit of your dreams, and the children are given paints and expected to draw a fruit tree based on a seed. • Children describe their drawings by telling the names of the fruits they have drawn, the season in which they are fruits, and what nutrients they need as they ripen (these concepts are mentioned in the book).	**Cognitive development** **Gain 1:** Pay attention to the object/situation/event. (Focuses on the object/situation/event that needs attention.) **Gain 3:** Recalls what he/she perceives. (Retells the object/situation/event after a while. Uses what he/she remembers in new situations.) **Gain 5:** Observes objects or entities (tells the texture, size, shape of the object or entity) **Gain 17:** Establishes a cause-effect relationship (tells the possible causes of an event.) **Language Development** **Outcome 7:** Comprehends the meaning of what he/she listens/watches. (Explains what he/she listens/watches.) **Social - Emotional Development** **Outcome 3:** Expresses himself/herself in creative ways. (2 expresses his/her feelings and thoughts in original ways. **Outcome 10:** Fulfills his/her responsibilities (Fulfills his/her responsibilities) **Outcome 13:** Protects aesthetic values. (Tells the beautiful and disturbing situations he/she sees around him/her.)

MY DREAM FRUIT TREE

Learning Process

- After the children narrate, the teacher opens the fruit tree-seed presentation and shows which fruit the seed is actually the seed of. After discussing the activity, the children go out to the garden with the seed jar. Each child is asked to choose a seed from the jar. These seeds are planted by digging small holes in appropriate places in the garden. The growth of the seeds planted throughout the semester is observed.

Materials

Jar, fruit pits, Kraft paper, colored pencils, glue

Water visuals

Seed, patience, life cycle, living conditions

Family Engagement

- At home, they are asked to prepare a seed jar with their children and collect the fruit seeds in this jar and plant them in nature, in the forest or in their gardens, if any.

Evaluation

- What is your favorite fruit?
- What would happen if we didn't save these seeds but threw them away?
- Were the imaginary fruit tree and the real fruit tree different?
- How did you feel when you planted the seeds?
- What do plants and trees need to grow?

Adaptation

- If there is a child with visual impairment in the class, they are asked to make a choice by feeling the texture of the seeds. Questions are asked about which fruit the fruit seed might belong to.

Recommendation

- If there is no fruit time at school, seeds can be requested from home.
- Instead of a jar, a seed pouch can be sewn from leftover fabric and the seeds can be collected in this pouch.

DISCOVERING THE 7TH CONTINENT

Event Theme	Concept of Activity
Theme 8: Human Impacts on Climate Change (What? How)	Pollution (Water pollution)
Activity Type	
Drama, Art, Science (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-6 years old	45 + 45 min

Learning Process	Gains and Indicators
Preliminary Preparation • Before the activity, the teacher decorates a corner of the classroom or a place outside the classroom as a "Sea Theme Area". For example, blue balloons, recyclable cardboard, pictures of the ocean or posters of sea creatures can be used. • For underwater exploration, a section can be created with toys or visuals of sea creatures (e.g. fish, crabs, shellfish, corals, etc.). The teacher places these visual materials in the activity area and allows children to see, touch and recognize them. • In addition, a corner called "7th Continent" is created as a pile of pollution. This should be an area where children can explore. Plastics, bottles, various leftover materials that will create pollution can be used. • The teacher puts visuals related to the "7th Continent" in an envelope. **Learning Process** • The children sit in a circle and the teacher shows the envelope in his/her hand and says that a letter has come from the seas and attracts the attention of the children. • The envelope is opened together and the visuals related to the "7th Continent" are examined with the children. • What is in the images for the children? How did it get polluted like this? They are asked who/what causes this pollution and are expected to answer.	**Cognitive development** **Gain 1:** Pay attention to the object/situation/event. (Focuses on the object/situation/event that needs attention.) **Outcome 10:** Reads visual materials (Examines visual materials. Explains visual materials. Answers questions about visual materials). **Gain 17:** Establishes a cause-effect relationship (tells the possible causes of an event.) **Gain 18:** Explains the concepts related to time. (Sorts the events according to the time of occurrence. Explains the concepts related to time in accordance with their meaning. Explains the functions of time reporting tools). **Outcome 19:** Produces solutions to problem situations. (States the problem. Suggests various solutions to the problem.) **Gain 20:** Prepares an object graph (Creates a graph by showing objects with symbols. Counts the objects or symbols that make up the graph. Explains the results by examining the graph). **Language Development** **Outcome 8**: Expresses what he/she listens/watches in various ways. (Exhibits what he/she listens/watches through drama.) **Social - Emotional Development** **Outcome 10:** Fulfills his/her responsibilities (Shows that he/she is willing to take responsibility.) **Outcome 13:** Protects aesthetic values. (Tells the beautiful and disturbing situations he/she sees around him/her.)

DISCOVERING THE 7TH CONTINENT

Learning Process

- The teacher talks about Water Pollution, Sea Pollution and the damages caused by pollution to living things through the answers received from the children. The teacher explains the concept of "7th Continent" to the children with the visuals in his/her hand.

Continent 7 is about a big problem in the oceans of our world. As we know, the majority of our world is covered with water and there are many seas and oceans. However, sometimes people pollute the seas and oceans by throwing garbage into them. This garbage consists mainly of plastics. Continent 7 represents an area where large amounts of plastic garbage actually accumulate. This litter floats on the surface of the oceans or sinks deep underwater. This harms both marine life and the ocean ecosystem. Sea creatures can eat this plastic litter and be harmed. In addition, plastics do not break down for years and affect wildlife. We must fulfill our responsibilities to ensure that plastics are not thrown into the seas and oceans, and that they are recycled and used properly.

Thus, we can protect marine life and the ocean ecosystem in a healthy way.

- After explaining the concept of "7th Continent", the teacher tells the children that they will play a game in which they will explore under the sea, underwater creatures and find the "7th Continent". The teacher shows the children the undersea area she has prepared beforehand and a discovery route is created. This different mission points are identified along the route. For example, an area for fish to swim, a cave where crabs hide or coral reefs.
- Children are encouraged to follow the route and discover sea creatures at each mission point. They are encouraged to introduce the creatures using visual materials.
- At the last task point, children are directed to a special region called "7th Continent" and they are made to notice the pollution. The children are asked to talk about how to prevent this pollution and how to clean it up after the creatures they have seen. Their feelings are asked. Together, the pollution in that area is cleaned.
- After the game, pictures and collages depicting undersea life and the 7th continent are created with recycled materials. They are exhibited on the class board or school board to raise awareness.

Materials

Colored cardboard or paper, glue, scissors, colored pencils or crayons, recycling materials (plastic bottles, paper, cardboard, etc.), pictures of sea creatures, 7.

Water visuals

Pollution, ecosystem, 7th continent, dirty-clean

Family Engagement

- By sending a letter to the families, they can create a poster about the 7th Continent with their children at home and talk about the 7th Continent, sea creatures and sea pollution and its causes.

Evaluation

- Who might be polluting our seas and waters?
- Which creatures did you see as you traveled through the sea? Which one did you like the most?
- What happens if the seas are polluted?
- How did you feel when you reached the 7th Continent during the Game Playing?
- 7. How did you feel while cleaning up the pollution on the continent? / Was it hard or easy to clean up? /Why?
- What can we do to prevent pollution of the seas and water?

Adaptation

- If there is a visually impaired child in the class, he/she is included in the process by accompanying him/her in the designed area and allowing him/her to touch and feel.

DISCOVERING THE 7TH CONTINENT

Recommendation

- You can sit with the children and talk again about sea pollution and the 7th continent. Re-emphasize the harm that marine pollution causes to sea creatures and nature. Also, remind them about proper waste management, recycling and reducing the use of plastics.
- Make an action plan with the children to raise awareness in the community. For example, you could organize a campaign with children to place recycling bins at school or in the surrounding parks. You can also make simple brochures or posters to inform families and other children about marine pollution. With this action plan, children will play an active role in raising awareness and mobilizing people in their community.


SAVING OUR
WORLD
FROM THE
7TH
CONTINENT

▶ LETTERS FROM AROUND THE WORLD

Event Theme	Activity Type
Theme 9: Ways to Protect Our World	**Drama, art, movement integrated large group activity**
Age Group	**Event Duration**
4-5 years old	**60 min**

Gains and Indicators

Cognitive development
Gain 1: Pay attention to the object/situation/event (Indicators: Focuses on the object/situation/event that needs attention. Asks questions about the object/situation/event that attracts attention. Explains the object/situation/event that attracts attention in detail.)
Gain 2: Makes predictions about objects/situations/events (Indicators: Says his/her guess about the object/situation/event. Explains
the clues related to his/her prediction. Examines the real situation and compares the prediction with the real situation.)"
Gain 3: Recalls what he/she perceives (Indicators: Retells the object/situation/event after a while. Says the object that is added or subtracted. Uses what he/she remembers in new situations.)
Outcome 10: Applies instructions about location in space. Indicators: Tells the position of the object in space. Places the object in the right place according to the instruction. Takes position in space.
Outcome 17: Establishes cause-effect relationships (Indicators: Tells the possible causes of an event. Tells the possible results of an
event.
Outcome 19: Produces solutions to problem situations (Indicators: States the problem. Suggests various solutions to the problem. Selects one of the solutions. Explains the reason for the solution he/she chooses. Tries the solution he/she chooses. When he/she cannot reach the solution, he/she chooses a new solution. Suggests creative solutions to the problem).

Language development
Outcome 5: Uses language for communication (Indicators: Makes eye contact during the conversation. Starts a conversation. Continues the conversation. Ends the conversation. Participates in a conversation. Waits for his/her turn to speak. Expresses feelings, thoughts and dreams. Gives reasons for his/her feelings and thoughts).

Social emotional development
Outcome 3: Expresses himself/herself in creative ways (Indicators: Expresses feelings, thoughts and dreams in original ways. Uses objects out of the ordinary. Creates products with original features.)
Outcome 4: Explains the feelings of others about an event or situation (Indicators: Expresses the feelings of others. Explains the reasons for the feelings of others. Explains the results of other people's emotions.)

LETTERS FROM AROUND THE WORLD

Learning Process

- The teacher goes out into the school garden with the children. After giving the necessary time for the children to explore the area, the teacher hangs a picture of a sad world from an envelope in an area visible to the children in the garden (ANNEX-2), encourages the children to gather around the picture and says to them, ""While you were playing in our garden just now, a postman came to our school and gave me this letter in my hand, when I said that I was not expecting a letter from anyone, he said that the letter was not only for me but also for the class (by saying the class name). Our world was upset because of some behaviors we did and wrote us this letter to share this sadness with us. What do you think we could have done to upset our world?"" and the answers from the children are listened to.
- After listening to each child who wants to speak, the teacher opens the envelope and starts reading the letter (Appendix 1). After the letter is read, the teacher places a chair in the center and reads the sentences written in the letter;
- Let's turn off the faucet when we brush our teeth, because;
- Let's put our garbage in the trash can, because;
- Let's take as much food as we can finish on our plates, because; Let's stay away from plastic bags when shopping, because;
- Let's choose to walk/bike or use public transportation to get to school because;

Materials

Chairs, crayons and drawing paper, Letter from the world, sad world picture

Letter, sad world picture

Earth, plastic, living things, letter

Family Engagement

- We can ask families to give some of the potted plants they have at home to their children and ask them to take care of them.
- If the family lives in a house with a garden, we can ask the child to plant plants in the garden and give the responsibility to the child.
- A new product made from the waste of materials we use at home and ask them to bring them to class.

Evaluation

- What about Earth's letter interested you the most? Why?
- How can we make the world a better place to live in?
- How would you feel if you were in Earth's place?"

Adaptation

- If there are students with hearing impairment in the class, they can be positioned close to the teacher while the teacher reads the letter.

Recommendation

- A new activity can be planned to ensure that the letters written by the children are answered in the future.
- A new activity can be planned on the habitats of the creatures (ants, anchovies, pines and cats) that are included asrepre-sentatives in Earth's letter and the impact of humans on these areas.
- A rules board can be created by identifying the points that we should pay attention to in our school.

LETTERS FROM AROUND THE WORLD

Annex-1

Dear children

I want you to know that I am writing this letter to you today together with the other living beings that I host. The creatures living under my soil; the creatures living in my seas, oceans and rivers; the animals and plants living in my forests also have some things they want you to pay attention to. If you pay attention to these issues, we can live a longer and more enjoyable life together.

- My water is wasted because people do not turn off the faucet while brushing their teeth.
- When I leave the room, I run out of energy because there are people who don't turn off the idle light.
- There are people who don't throw their garbage in the garbage bin, so I get dirty all over.
- My land is polluted because people use a new plastic bag every time they shop.
- Because there are too many cars, there is too much exhaust and my trees are not enough to clean it and my air is polluted.
- Because chemicals are used in nature, all kinds of living things are harmed. My trees, flowers, animals, soil and water are affected by these chemicals.
- My food is not enough for all the people because there are many who have more food on their plates than they can finish.

I am a home not only to humans but also to other living beings, and because people don't pay attention to these things, I can't offer a good life to other living beings, children... Can you help me with these issues?

LETTERS FROM AROUND THE WORLD

LITTLE NATURE FRIENDS

Event Theme	Concept of Activity
Theme 9: Ways to Protect Our World	Protection of Natural Areas
Activity Type	
Music, Drama, Art and Turkish Language (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-6 years old	60 min

Learning Process

Preliminary Preparation

- Before starting the activity, the teacher prepares pictures of nature to show the children and hang them in the classroom. They can also read a book or a fairy tale about nature to attract their attention. They can even write a story or a fairy tale themselves or with the children beforehand.

Learning Process

- When children arrive in class, they are shown pictures or photos of nature during circle time. Pictures of the forest, the seaside, a meadow full of flowers or other beautiful natural areas are examined. The children talk about how beautiful and valuable nature is and are asked what they think about the photos or pictures.
- Then the teacher tells the children that they will make Recycled Nature Paintings from the leftover materials in the classroom (colored cardboards, newspaper papers, plastic bottle caps and other recyclable materials) and the art work begins with the children.
- Children are given paints and brushes and are encouraged to paint natural areas. For example, green pieces of cardboard can represent a forest, blue pieces of cardboard can represent a lake or the sea. In this way, they make nature paintings in the form of collages. The nature paintings are hung on the class bulletin board and the children are encouraged to talk about protecting these areas, and suggestions on how to protect the natural areas they have painted are taken from the children and noted down. For example, what methods do they have to keep these areas clean? They are asked. They are asked what people who visit these areas should pay attention to and these are written down and hung up. These suggestions from the children can be called **"Environmentally Friendly Behaviors"**.
- The teacher turns on some music and tells the children that they will dance the "Hand in Hand for Nature" dance. The music is turned on and the children are encouraged to dance. They are told to dance a dance that embraces nature with love, imitating trees, birds, seas and flowers. The teacher then videotapes the children and shows them the dance later. This video is also sent to parents.
- Environmentally friendly cleaning cloths and bags are sent home and children are given the task of going to a natural area near their homes (according to their means), exploring and cleaning it by taking responsibility and ensuring family participation activities.

LITTLE NATURE FRIENDS

Gains and Indicators

Cognitive Development

Gain 1: Pay attention to the object/situation/event. (Focuses on the object/situation/event that needs attention.)
Outcome 3: Recalls what he/she perceives (Uses what he/she remembers in new situations).
Outcome 10: Reads visual materials (Examines visual materials. Explains visual materials. Answers questions about visual materials).
Gain 17: Establishes a cause-effect relationship (tells the possible causes of an event.)
Outcome 19: Produces solutions to problem situations. (States the problem. Suggests various solutions to the problem.)

Language Development
Outcome 8: Expresses what he/she listens to/watches in various ways (Exhibits what he/she listens to/watches through drama).

Social - Emotional Development
Outcome 10: Fulfills his/her responsibilities. (Shows that he/she is willing to take responsibility.) Outcome 13: Protects aesthetic values. (Tells the beautiful and disturbing situations he/she sees around him/her.) Self-Care
Outcome 3: Makes the necessary arrangements in living spaces (Uses the items at home/school cleanly and carefully).

Materials

Colorful cardboard, glue, scissors, crayons or watercolors, brush, paper plates (for paints), nature photos or pictures, eco-friendly cleaning cloth or cloth bags (family participation), music system (for playing music)

Letter, sad world picture

Pollution, natural area, environmentally friendly, dirty-clean

Family Engagement

Families are sent a video of the hand in hand dance for nature made by the children and nature-friendly cleaning cloths and bags. They are asked to visit a natural area close to their home (park, garden, forest, etc.) with their children and support them in cleaning it.

For those who can't go, children can write and draw slogans about protecting nature on the eco-friendly bags with the support of their parents.

Evaluation

- What happens when our nature is polluted?
- What are environmentally friendly behaviors?
- How did you feel when you danced Hand in Hand for Nature?
- Where do you think are the natural areas most in need of protection?
- Where are your favorite natural areas to play?

Adaptation

- If there is a child with hearing impairment in the class, the teacher supports the child throughout the process, especially in the hand in hand dance for nature, since music will be played, the child can be encouraged to do the movements during the dance. They can be shown some live pictures from nature and imitate them.

Recommendation

- This activity aims to help children understand the importance of natural areas and the need to protect nature. At the same-time, it is also important to enable them to explore nature and gain nature-friendly habits. For this purpose, a trip to the-school garden, a park or another natural area can be organized and this activity can also be carried out there. Children can be introduced to natural materials. Play games with stones, leaves, flowers and other natural materials that you collect together with the children in the park or garden, make nature paintings and talk about their protection.

SAVING SIGNS

Event Theme	Concept of Activity
Theme 9: Ways to Protect Our World	Savings
Activity Type	
Turkish, Art and Play (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-6 years old	60 min

Learning Process

- Chat with the children about what our energy sources are. Answers from the children are noted. What do we do to use energy resources in a frugal way? The teacher can also support the children by giving examples so that they can understand better. It is shared with the children that we should not waste our water, that we should turn off the lights if they are not in use, and that we should collect our recyclable wastes in waste bins.
- The teacher tells the children, "We will find our energy sources in our school and prepare warning signs that we need to use them correctly and hang them in the necessary places." The teacher then visits the school with the children and identifies the energy sources. Children can draw the identified energy sources.
- When returning to the classroom, the posters about the positive consumption of energy resources can be examined and the children can talk about what they want to explain in the posters.
- Then the children are given paints and papers and told that they will make warning signs for saving money. The children are divided into small groups and the energy resources in the school are divided into groups.
- They are guided to prepare a sign about wasting water to hang near the faucets, and signs next to the electric switches with the message to turn off when you are done.
- The plates prepared through collaborative work are pasted on cardboards and hung in appropriate places in the school together with the children.
- A circle is formed with cushions. Children are told that they will play the game of "sit on the cushion if it is right, stand up if it is wrong". Here, children are given positive and negative instructions about what can be done to save energy. If the measure that can be taken against wasting energy resources is correct, children sit on the mat. If it is wrong, they stand up. The game is explained to the children. (If the weather is suitable, this game can also be played in the garden).

Directive Examples

We should turn off the water while brushing our teeth (right, sit on the cushion).
- We should leave the lights on when we leave the room or house (wrong, stand up).
- When going to school or sightseeing, we should walk if it is a short distance. (Correct, sit on the cushion.)
- We should use plastic bags for shopping.(False, stand up.)
- We should fix the leaky faucets. (That's right, sit on the cushion.)
- We should unplug the TV and computer after turning them off. (That's right, sit on the cushion.) Examples can be multiplied.

SAVING SIGNS

Gains and Indicators

Cognitive Development
Gain 1: Pay attention to the object/situation/event. (Focuses on the object/situation/event that needs attention.)
Outcome 3: Recalls what he/she perceives (Uses what he/she remembers in new situations).
Outcome 10: Reads visual materials (Examines visual materials. Explains visual materials. Answers questions about visual materials).
Gain 17: Establishes a cause-effect relationship (tells the possible causes of an event.)
Outcome 19: Produces solutions to problem situations. (States the problem. Suggests various solutions to the problem.)

Language Development
Outcome 8: Expresses what he/she listens to/watches in various ways (Exhibits what he/she listens to/watches through drama).

Social - Emotional Development
Outcome 10: Fulfills his/her responsibilities. (Shows that he/she is willing to take responsibility.)
Outcome 13: Protects aesthetic values. (Tells the beautiful and disturbing situations he/she sees around him/her.) Self-Care
Outcome 3: Makes the necessary arrangements in living spaces. (Uses the items at home/school cleanly and carefully.)

Materials

Colored cardboards, glue, scissors, crayons or watercolors, brush (Cardboards can also be used from recycled boxes).

Letter, sad world picture

Recycling, saving, energy source

Family Engagement

At home, they can be asked to draw a sign that they can hang in appropriate places.

Parents can be asked to guide their children to hang the warning sign they have prepared at school in an appropriate place at home.

Evaluation

- How did it make you feel to take responsibility for this issue with the signs you prepared to use energy resources sparingly?
- What did you say on your warning sign and where-did you put it?
- What do you do with the bottles and plastics at home?
- What do you pay attention to when using energy sources at home?

Adaptation

- **If there are children with orthopedic disabilities in the class,** the game can be played not by asking children to stand up and sit down, but by asking them to raise their hands if they are correct and lower them if they are wrong.

Recommendation

- Support can be obtained from associations, institutions and municipalities that have taken social responsibility for protecting our environment, and trips can be organized to these institutions or employees of these institutions can be invited to the school.

▶ MY NEEDS AND WISHES

Event Theme	Concept of Activity
Theme 9: Ways to Protect Our World	**Need and Want**
Activity Type	
Drama, Play, Art and Turkish Language (Integrated Large Group Activity)	
Age Group	**Event Duration**
4-6 years old	**60 min**

Learning Process

Preliminary Preparation

- Before starting the activity, the teacher makes a presentation with a simple story or examples to introduce the concepts of needs and wants to the children. This can be supported visually with photos that can be needs and wants. For example, you can give examples such as "Drinking water when thirsty is a need, but eating chocolate is a want". Thus, the concepts of need and want will become concrete for children.

Learning Process

- After a storytelling and presentation about the concepts of needs and wants, children are asked to talk about their needs and wants, and a Needs and Wants Map can be created for this purpose. "Needs" and "Wants" headings are created on a large cardboard or board to support children's early literacy skills. Children are given colored cardboard or paper and paints and asked to draw their wants and needs. While the children are drawing, they are approached and chatted with. Then, children are asked to paste their drawings under the titles "Needs" and "Wants". Here, children are chatted with while gluing and their comprehension of the concepts is assessed. For example, ask them to reinforce their needs such as food, water, clothing, etc. by asking their friends whether they have hung the needs on the right side and whether they have hung the wants such as toys, candies, chocolate on the right side.

- After discussing and differentiating the concepts of needs and wants with the children, they are asked which things they should buy first when they go shopping and discuss whether needs or wants take priority. The answers from the children are noted down. Afterwards, the children are asked to go to a place that was previously prepared in the form of a grocery store and where toy objects were placed on the shelves. The children's shopping baskets or bags are analyzed to see whether they bought their needs or wants first and discussed together.

Recommendation

- This activity will help preschool children to understand the concepts of needs and wants and to recognize this difference. To do this, you can role play with children to help them better understand the concepts of needs and wants. You can give them different scenarios and let them guess which situations are needs and which are wants.

- You can play a matching game with the children using pictures or objects. As a teacher, you can show different objects that indicate needs or wants and ask the children to place them under the correct heading or in the need/want boxes you have predetermined.

MY NEEDS AND WISHES

Gains and Indicators

Cognitive Development
Gain 1: Pay attention to the object/situation/event. (Focuses on the object/situation/event that needs attention.)
Outcome 3: Recalls what he/she perceives (Uses what he/she remembers in new situations).
Outcome 10: Reads visual materials (Examines visual materials. Explains visual materials. Answers questions about visual materials).
Gain 17: Establishes a cause-effect relationship (tells the possible causes of an event.)
Outcome 19: Produces solutions to problem situations. (States the problem. Suggests various solutions to the problem.)

Language Development
Outcome 8: Expresses what he/she listens/watches in various ways. (Exhibits what he/she listens/watches through drama.)

Social - Emotional Development
Outcome 10: Fulfills his/her responsibilities. (Shows that he/she is willing to take responsibility.)
Outcome 13: Protects aesthetic values. (Tells the beautiful and disturbing situations he/she sees around him/her.) Self-Care
Outcome 3: Makes the necessary arrangements in living spaces. (Uses the items at home/school cleanly and carefully.)

Materials

Colored cardboard, glue, scissors, crayons or watercolors, brush, blackboard, Kraft paper, pictures or objects (toys, clothes, food, etc.)

Letter, sad world picture

Want, need, consumption

Family Engagement

Tell parents to make a **Needs and Wants** List at home before going shopping with their children. They can make needs and wants lists at home using pictures or words they cut out from magazines or newspapers or draw themselves. With this list, children will recognize their own needs and wants and learn to differentiate. When they go shopping, they can reinforce with their families that they should buy what they need first.

Evaluation

- Which of your necessities do you use the most?
- When can you get your requests?
- Do you get what you want first or what you need first? Why?
- Which one of your requests makes you the happiest?
- What do you have to do to get what you want?

Adaptation

- If there is a child with Autism Spectrum Disorder (ASD) in the classroom, the sensory sensitivity of the child should be taken into account during the use of paints, papers, cards and visuals.

NOTES

NOTES

YUVA
for all living beings

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