OUR BIG, BIG EARTH

**Ages 4 to 7 (Level 1)**

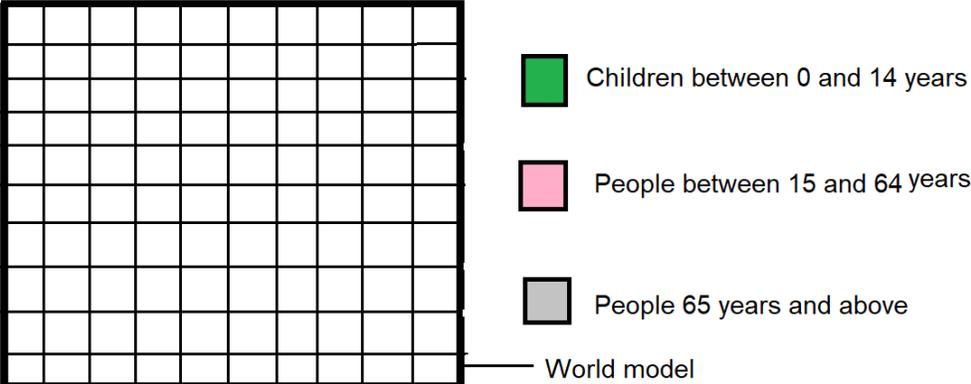|	
Description:	This project teaches the learner about the world and its diversity to help them develop tolerance toward other people and cultures.
Leading question:	How big and diverse is our planet Earth?
Age group:	4-7-year-old
Subjects:	Social sciences, Global citizenship, and Mathematics
Total time required:	~5 hours over 3 days
Self-guided / Supervised activity:	High parent supervision required
Resources required:	Paper, pencils, coloring pens, & glue

Learning outcomes	- Understanding world Geography and demographics: List the continents and oceans, number of countries and world population - Understanding the importance of global interconnectedness and the challenges which may arise from it. - Understanding the importance of the enriching diversity of our Earth - Having an attitude of tolerance and appreciation to other cultures of the world - Data visualization and percentages (basics)
Required previous learning	Planet Earth, and the concept of countries and populations

Topics/concepts covered and skills and attitudes developed
● World Geography and demographics ● Global interconnectedness ● Diversity of our Earth ● Tolerance and appreciation ● Data visualization and percentages ● Research skills ● Creativity and communication skills

Day	Time	Activity and Description
1	5 minutes	Introduce that we are going to learn about our planet Earth. It is round and looks like a ball that is stretched from the middle.

EAA welcomes feedback on its projects in order to improve, please use this link:
https://forms.gle/LGAP9k17fMyJrKJN7

Earth topography (ETOPO2_010arcmin)

Source:
https://www.asu.cas.cz/~bezdek/vyzkum/rotating_3d_globe/figures/elevation_2d_map_Earth_topography_ETOPO2_010arcmin_GMT_globe_px0650.png

30 minutes	World in numbers: continents and oceans, countries, and people. The learner will answer the questions in the World in numbers worksheet (Appendix 1) (it is preferred to have a hard copy of the worksheet). - Answers: There are 195 countries in the world, and a total of 7.9 billion people of whom 1 in every 4 persons living on Earth is a child under the age of 14.	
10 minutes	To make it easier for us to deal with huge numbers like populations, mathematicians developed the idea of Percentage. Percentage is when you divide something into 100 equal parts, and then express any quantity as a number out of hundred. Example 1: in the picture below, there is a really huge number of candies. One cannot tell how many green candies there are. However, if we take 100 candies and arrange them as in the below picture, we will get 25 Yellow	

candies, 25 Green, 25 Orange and 25 Red. So, we say that 25 Percent of the candies are yellow. We write this as: 25% Yellow.

In the same manner, If the world had 100 people:
- 25 would be children between 0 and 14 years of age
- 66 would be between 15 and 64 years of age
- 9 would be 65 years of age and older

When we say that 25% of the world population are children under the age of 14. It means in every group of 100 people, 25 of them are children. Which is one quarter of the whole population. If the circle below was 100, each one of the four quarters we get when we divide it into 4 equal parts will be 25. Learners will divide 100 by 4 to verify:

```
      25
  4 |100
    - 8 ↓
      20
     -20
       0
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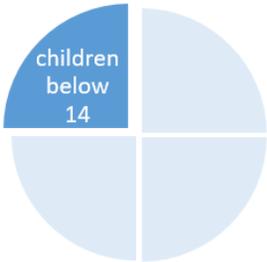

Learners will answer the following questions:

1. If the world had 100 people, 66 would be between 15 and 64 years of age. What percentage of the world population are between 15 and 64 years?
2. If the world had 100 people, 9 would be 65 years and older. What percentage of the world population are 65 years and older?

Answers:
- People between 15 and 64 years: 66%
- People 65 years and older: 9%

Challenge: The learner will use the diagram below, to create a world model showing world population distribution by age using the information below.

- Children between 0 and 14 years: 25%
- People between 15 and 64 years: 66%
- People 65 years and above: 9%.

Hint: The diagram has 100 squares.

Answer: The learner will color 25 boxes green, 66 boxes pink and 9 boxes grey.

Challenge: Using any suitable material, the learner will create a durable 3-D model of the world. They can try to create a round figure or simply draw a figure of the Earth on a large piece of paper.
The learner will share the model with the family.

Criteria: the model is 3-d, with the names of continents and oceans written clearly on it.

Hint: some easy ways that learners can use to construct the globe is using paper bowls, layering on used paper and then drawing on the outer layer or wrapping a ball they have with paper.

Learners present to parents their model or map.
Parents observe and give feedback on the product.

15 minutes

| 2 | 20 minutes | Activity: Looking at the picture below, this is the top of a very deep container of apples. The shop owner organized them by putting green apples on the left, red apples in the middle, and yellow apples on the right. Assuming these are 100 apples at the top, how many of the hundred would be red? How many are Green? How many are Yellow? Write your guesses as a percentage: a number followed by this sign %

Activity: Some mathematicians divided all the 7.9 billion people in the world into 100 groups. To represent Percentages of people living on each continent, they made this Population distribution drawing of the world map with 100 human characters.

Activity: Use the Population distribution visual in the appendix to count what percentage of people live on each continent.
- o North America
- o South America
- o Africa
- o Europe
- o Asia
- o Australia

Hint: There are a total of 100 people in the Population distribution visual

Answers:
- o North America 5%
- o South America 9%
- o Africa 16%
- o Europe 10%
- o Asia 60%
- o Australia (less than 1%)

Questions:
- Which continent has the most people living in it?
- Which continent seems to be least populated? |
|---|---|---|

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https://forms.gle/LGAP9k17fMyJrKJN7

	20 minutes	Optional for Parents/educators to explain: You know that there are around 25 million people living in Australia. However, this number is less than 1% of the total population of the world and that's why the visual showed nothing in Australia. Actually, because there are 7.9 billion people on the planet, one percent of the whole population is still a huge number. 1% of the total population of the world is 79,000,000! Now that we know how big our planet is, and how many people live on it at the moment, let's try to see how interconnected our lives are. How 'global' is our family? Activity: The learner together with the family members will answer a set of questions to realize our global interconnectedness. (Family to choose only the relevant questions). In each case, the family should ask the learner to draw a line from the country/continent the family lives in to the identified country/continent - Do we have family members living in other countries/ continents? Can you spot that continent on the world map? - Do we have friends from other countries or continents? Can you spot the continent on the world map? - Do any of us use or know a salutation/greeting in another language? Where did that language originate? - Do any of us like a dish from a different culture/country? - Has any of us ever travelled to another country?
	15 minutes	To find out how global events affect our daily life. let's look into the COVID-19 pandemic: o Do you know where COVID-19 actually started? (Which city, in which country, in which continent) o Can you spot that on the map? o How has COVID-19 affected you, your family and your country? o Can you locate your country on the map? o Do you know any other countries which have been greatly affected by COVID-19? o Can you spot them on the map? o How strange is it that someone catching a virus in a faraway city, led to a global pandemic and had such a major impact on everybody's lives?! Learners will discuss this with their family or class.

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	45 minutes	Optional literacy Extension: The learner will perform a role play for family members or their class to demonstrate how he/she would fit in a new environment when taken to a new country with people of a different color, language and culture. Family/Parent supported research The family/parents search for answers to the following questions and explain to the learners about the origin of these goods by locating the countries on the Earth model they made yesterday. Answers can be found either by reading labels on the products, asking the salesperson at the market where we buy them, asking relatives and friends, or from newspapers. Where do we get the necessities of our life (whether locally produced or imported from other countries)? Choose any four of the below categories, and mark on the map the location they are imported from. ● Rice, wheat for bread, lentils. ● Fruits and Vegetables ● The fuel that operates our electricity power plants and transportation vehicles ● The manufacturing material and process of our phones or computers ● The cotton in our clothes ● The vehicles we drive ● Where are our electric appliances made? ● What is it that our country exports to other parts of the world?
	10 minutes	Learners are asked reflection questions: What do you think of all the things we have at home: how many people do you think worked on them until they reached our house? (Starting from extraction of raw material, to manufacturing, to transport. Raw materials are the things that are found in nature that are then processed and used to create the things we use in our daily lives. For example, cotton is the raw material used in making t-shirts)
3	30 minutes	Tolerance: there are many similarities amongst all humans, but there are also differences. The differences are very interesting, because it would be boring if we were all similar! Let each of us fill this ID table, and then discuss it. (Parents to help children who cannot read/write all questions/answers yet)

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Things that I did not choose	Things I chose for myself!
Name	My favorite dish
Nationality	My superhero
Religion	Favorite story
Eye-color	Favorite game

Learners have a discussion around the identity card, and the idea of perceiving differences and building barriers between peoples based on things they have not chosen.

- What is similar for all of us in the family?
- What are our differences?
- Do you think there are other learners from around the world who share similarities with you?
- Would you prefer playing your favorite game with your parent or with a learner from another country? Why?

Reflection questions:
- What do you think when you see a kid who has a different skin color?
- What do you feel when you are with people who speak a language you don't understand?
- Would you like to live in a country where people have a different skin color, speak a different language and eat different food from yours?
- Do you think they may share similarities with you? If so, what similarities might you share?
- If you have a friend from a different religion or country, what gift would you give them?

Assessment Criteria:	- Engagement while working on tasks - Creativity in making the 3-D model - Interest in learning about other countries and their cultures - Interactions and answers to the questions - Attitude of tolerance and respect for differences

Learning outcomes:	- World Geography and demographics: List the continents and oceans, number of countries and world population - Realize the importance of the enriching diversity of our Earth - Develop tolerance and appreciation to other cultures of the world - Data visualization and percentages (basics)

Required previous learning:	Planet Earth, the concept of countries and peoples, and counting up to 100.
Additional enrichment activities:	You can ask your learner to draw a map of the world with nothing written on it, and then play a game with family members to answer all questions that on World in numbers worksheet
Modifications for simplification:	A simpler version of this project would be to do the activities of Day 1 and 3 only.

Appendix 1: World in numbers worksheet

The Earth is like a ball.

On its surface there are land pieces and water surfaces. Large pieces of land are called continents, and large water surfaces are called oceans.

Source: http://www.myschoolhouse.com/courses/O/1/76.asp

- How many continents are there in the world? Please name them.

- How many oceans? Please name them.

- In which continent do you live?

- If you want to travel to North America, what oceans and continents do you have to cross?

Harder questions:

- How many countries are there in the world? (Make a guess)

- How many people are there living around the whole world? (Make a guess)

- What proportion of the worlds' population are children (under age 14)?

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Appendix 2: Population distribution

What percentage of people live in each continent?

Source: Knovva Academy: https://www.youtube.com/watch?v=A3nllBT9ACg"

Source: Knovva Academy: https://www.youtube.com/watch?v=A3nllBT9ACg
An alternative " If the world was 100 people " video

Learners may also access the video linked below for a visual representation of "the world in numbers" if they have internet access.
Source: https://www.youtube.com/watch?v=LXqOd5noN8g

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Ages 8 to 10 (Level 2)

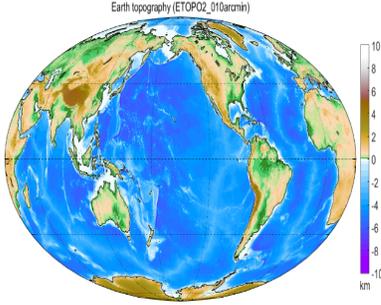|	
Description:	This project teaches the learner about the world and its diversity to help them develop tolerance toward other cultures.
Leading question:	How big and diverse is our planet Earth?
Age group:	8-10-year-old
Subjects:	Social sciences, Global citizenship, and Mathematics
Total time required:	~ 5 hours over 3 days
Self-guided / Supervised activity:	Medium parent supervision required
Resources required:	Paper, pencils, coloring pens, & glue

Learning outcomes	- Understanding world Geography and demographics: List the continents and oceans, number of countries and world population - Understanding the importance of global interconnectedness and the challenges which may arise from it - Understanding the importance of the enriching diversity of our Earth - Having an attitude of tolerance and appreciation to other cultures of the world - Understanding estimation and visualization of large numbers
Required previous learning	Planet Earth, and the concept of countries and populations.

Topics/concepts covered and skills developed
- World Geography and demographics   - Global interconnectedness   - Enriching diversity of our Earth   - Tolerance and appreciation   - Estimation and visualization of large numbers   - Critical thinking and communication skills   - Creativity skills

Day	Time	Activity and Description
1	5 minutes	Introduction that we are going to learn about our planet Earth. It is round and looks like a ball stretched from the middle.

Earth topography (ETOPO2_010arcmin)

Source:
https://www.asu.cas.cz/~bezdek/vyzkum/rotating_3d_globe/figures/elevation_2d_map_Earth_topography_ETOPO2_010arcmin_GMT_globe_px0650.png

	30 minutes	World in numbers: continents and oceans, countries, and people. Complete the World in numbers worksheet with the learners (it is preferred to have a hard copy of the worksheet). - Answers: There are 195 countries in the world, and a total of 7.9 billion people.
	45 minutes	Challenge learners to create a 3D model of planet Earth. Hint: some easy ways that learners can use to construct the globe is using paper bowls, layering on used paper and then drawing on the outer layer or wrapping a ball they have with paper. Alternatively, learners can also draw a map of the Earth on a large piece of paper Assessment Criteria: the model is 3D, with the names of continents and oceans written clearly on it. (Or the map has the names of continents and oceans.) The model is durable to be used as a reference by the family. How impressive is the creativity that learners have put into making it?
	15 minutes	Learners present their model to their family or classroom, explaining how they made it. Parents/classmates observe and give feedback on the product.
2	20 minutes	We saw yesterday that 7.9 billion people live on Earth. This is a huge number. Activity: Looking at the picture below, this is the top of a very deep container of apples. The shop owner organized them by putting green apples on the

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left, red apples in the middle, and yellow apples on the right. Assuming there are 100 apples on the top part of the container, how many of the hundred would be red? How many are green? How many are yellow? Write your guesses as percentage: a number followed by this sign "%"

Answer: the learner will count how many green, red, and yellow apples there are. This will be the percentage since we are assuming that there are 100 apples on the top part of the container.

Percentage means out of every hundred. Therefore, if we have 18 green apples out of 100, the percentage of green apples is 18%.

Activity: Some mathematicians divided all the 7.9 billion people in the world into 100 groups, to represent Percentages of people living on each continent, they made this Population distribution drawing of the world map with 100 human characters.
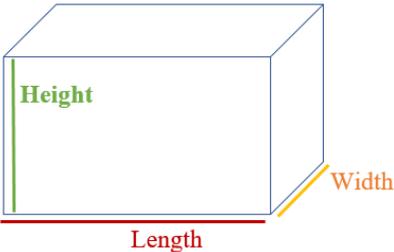
Activity: Use the Population distribution visual to find out what percentage of people live on each continent.
- o   North America
- o   South America
- o   Africa
- o   Europe
- o   Asia
- o   Australia

Hint: There are a total of 100 people in the Population distribution visual
Answers:
- o   North America 5%
- o   South America 9%
- o   Africa 16%
- o   Europe 10%
- o   Asia 60%

o Australia (less than 1%)

Questions:
- Which continent has the most people living on?
- Which continent seems to be least populated?

Optional for Parents/educators to explain: You know that there are around 25 million people living in Australia. However, this number is less than 1% of the total population of the world, and that's why the visual showed nothing on Australia. Actually, because there are 7.9 billion people on the planet, one percent of the whole population is still a huge number. 1% of the total population of the world is 79,000,000!

30 minutes

Optional activity
We learned that 7.9 billion people are living on planet Earth. How big is this 7.9 billion as a number?
Let's try to visualize 7.9 billion as a number:
A Million is a Thousand Thousands, and a Billion is a Thousand Millions!

Let's try to imagine a room full of rice. How many rice grains can fit in your room?
1. First, we need to measure the amount of 'space' in the room. This is called Volume. As you are familiar with area as the measure of surfaces, Volume is the measure of space that an object occupies. The Volume of a cuboid is calculated by multiplying the length (in meters) by width (in meters) by height (in meters) : V = Length x width x height

    Choose one room of the house that is a cuboid (which has a rectangular floor).

Either measure its dimensions or ask the help of your parents to estimate (guess) the dimensions of your room in meters, then calculate the volume. Let this number be "V"

2. Then, fill a teaspoon with rice grains, and count them. This number is "N".

3. 1 liter = 1000 milliliters. A teaspoon is about 5 milliliters (abbreviated to ml), so to reach 1 liter we must multiply by 200. Therefore, multiply Nx200. This will give us approximately number of rice grains in 1 Liter of space

4. 1 Cubic meter, or the space within a cube of 1 meter dimension, is equivalent to 1000 liters. So now, we need to multiply the previous answer by 1000: (Nx200)x1000. This gives us approximately the number of rice grains in 1 cubic meter.

5. Finally, to estimate the number of rice grains that fit in your room, multiply the previous answer by V:

[(Nx200)x1000]xV = approximately the number of rice grains that fit in your room.

6. Compare the answer to 7.9 billion. What do you think of this number now, do you see how big it is?

20 minutes

Learners will enter the digits of both numbers in the following place value chart to compare

Billions	Hundred millions	Ten millions	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones

10 minutes

Now that we know how big our planet is, and how many people live on it at the moment, let's try to see how interconnected our lives are.
How 'global' is our family?
Activity: learners, together with family/classmates, answer a set of questions to realize our global interconnectedness. (family/ /educators to choose only the relevant questions)

		-Do we have family members living in other countries/ continents? Can you locate the country/continent on the map? - Do we have friends from other countries or continents? Can you locate the country/continent on the map? - Do any of us use or know a salutation/greeting in another language? Which language do you know? Where did that language originate from OR where is that language spoken? - Does any one of us like a dish from a different culture/country? - Has any one of us travelled to another country? Can you locate the country on the map? In each case, the learner will draw a line from our country/continent to the identified country/continent
	30 minutes	To find out how global events affect our life, let's look into the COVID-19 pandemic: o Do you know where COVID-19 was first reported? (Which city, in which country, in which continent) o Can you spot that on the map? o How has COVID-19 affected you, your family and your country? o Can you spot your country on the map? o Do you know any other countries which have been greatly affected by COVID-19? o Can you spot them on the map? o How strange is it that someone catching a virus in a faraway city, led to a global pandemic and had such a major impact on everybody's lives?! Optional literacy Extension: The learner will perform a role play for their family members/classmates demonstrating how he/she would fit in a new environment when taken to a new country with people of a different colour , language and culture
	10 minutes	Family/educator assisted research: Where do the goods we consume originate from? The family/educator provides learners with a range of products, some produced locally and others imported from other countries. Learners will find answers to the following questions and explain the origin of these goods by locating the country of origin on the Earth model they made

yesterday. Answers can be found either by reading labels on the products, asking the salesperson at the market where we buy them, asking relatives and friends, from newspapers or an internet search.

Where do we get the necessities of our life (whether locally produced or imported from other countries). Choose any four of the categories below, and mark on the map the location of where you import them.

- Rice, wheat for bread, lentils.
- Fruits and Vegetables
- The fuel that operates our electricity power plants and transportation vehicles
- Vehicles we drive
- The manufacturing materials of our phones or computers
- The cotton in our clothes
- Where are our electric appliances made? Where is the origin of the raw materials used in their manufacturing?
- Why is it that our country exports to other parts of the world?

Explain that raw materials are things that are found in nature that are then processed and used to create the things we use in our daily lives. For example, cotton is the raw material used in making t-shirts.

Learners are asked to reflect:
What do you think of all the things we have at home: how many people you think worked on them until they reached our house? (starting from extraction of raw material, to manufacturing, to transport.)

| 3 | 30 minutes | There are many similarities amongst all humans, but there are also differences. |

There are many similarities amongst all humans, but there are also differences.
Let's look into our family first and see.
Activity: Let each of us fill this ID table, and then we discuss it.

Things that I did not choose	Things I chose for myself!
Name	My favorite dish
Nationality	My superhero
Religion	Favorite story
Eye-color	Favorite game

	45 minutes	Learners will have a discussion around the identity cards, on the idea of perceived differences and building barriers between people based on things they may have not chosen such as nationality, skin color etc. Some points they can discuss: ● What is similar for all of us in the family? ● What are our differences? ● Do you think there are other learners from around the world who share similarities with you? ● Would you prefer playing your favorite game with your parent or with a learner from another country? Why? ● Do you like that family members have differences, or you wish that we were all similar with no differences? ● Don't you think it would be boring if we were all similar? ● Don't we enjoy using the different things at home that were made in various parts of the world?
	15 minutes	Reflection questions: ● What would you think of a kid who has a different skin color? Do you think they may share similarities with you? ● What do you feel when you are with people who speak a language that you don't understand? ● Would you like to live in a country where people have a different skin color, speak a different language and eat different food from yours? If you have a friend from a country that speaks a different language, what gift would you give them?
Assessment Criteria:		● Engagement while working on tasks ● Interactions and answers to the questions ● Creativity in producing the 3-D model ● Attitude of tolerance and respect for differences

| Additional enrichment activities: | - You can ask your learner to draw a map of the world with nothing written on it, and then play a game with family members to answer all questions that on World in numbers worksheet
- You can ask your learner to make a puzzle out of the world map, by drawing it and then cutting it into square pieces, to challenge family members to put it together. |

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https://forms.gle/LGAP9k17fMyJrKJN7

| Modifications to simplify:	- A simpler version of this project would be to do the activities of Day 1 and 3 only.

Ages 11-14 (Level 3)

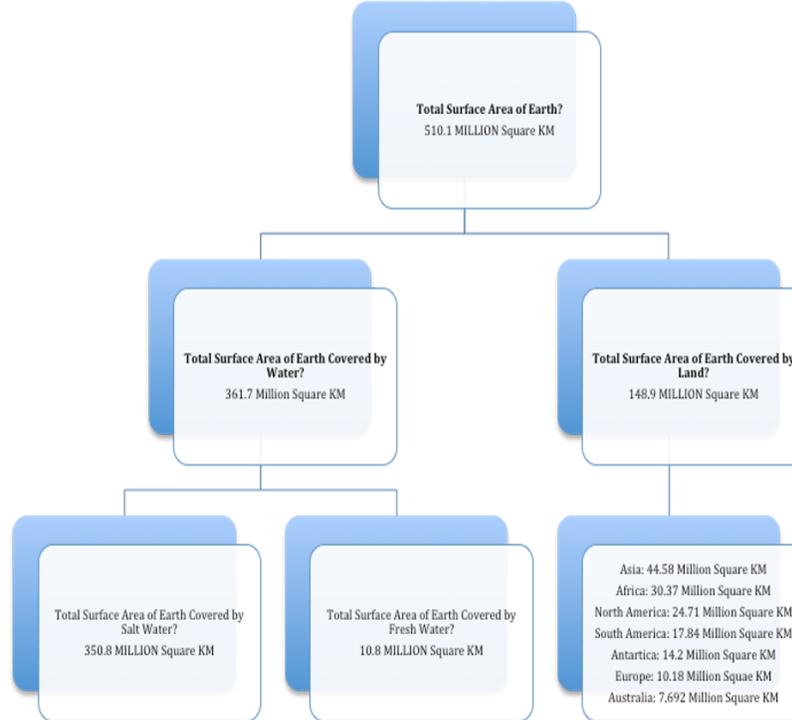| Description:	This project teaches the learner about the world and its diversity to help them develop tolerance toward other cultures.
Leading question:	How big and diverse is our planet Earth?
Age group:	11-14 year olds
Subjects:	Social sciences, Global citizenship, and Mathematics
Total time required:	~ 5 hours over 3 days
Self-guided / Supervised activity:	Medium parent supervision required
Resources required:	Paper, pencils, coloring pens, & glue

Learning outcomes	● World Geography and demographics: List the continents and oceans, number of countries and world population ● Realize the importance of the enriching diversity of our Earth ● Develop tolerance and appreciation to other cultures of the world ● Learn some methods around estimation and visualizing huge numbers
Required previous learning	Planet Earth, and the concept of countries and populations.

| Topics/concepts covered and skills developed |
|---|
| ● Planet Earth
● World Geography and demographics
● Global interconnectedness
● Diversity of cultures
● Tolerance and appreciation
● Data visualization and percentages
● Research skills
● Creativity and communication skills |

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Day	Time	Activity and Description
1	5 minutes	● We are going to learn about our planet Earth. Let's begin with a few questions: ○ What are some things that you know about planet Earth? ○ What are some things that you don't know about planet Earth? ○ What are some things that you believe about planet Earth? If necessary, orient learners with some of the following questions: ○ What is the shape of our planet? ○ Have we discovered life on another planet in the solar system? ○ What makes it possible for our planet to sustain life? ○ What percentage of our planet is covered by water? Hint: ● The name of our planet is the Earth ● The shape of the Earth is like a sphere but not a perfect sphere - it is closer to an irregular shape called the ellipsoid ● We have not yet discovered life on another planet in the solar system though the search for life is currently ongoing on Mars. For now, Earth is the only planet known to maintain life ● Our planet Earth is able to support life due to ○ Its right distance from the sun enabling it to receive the perfect amount of heat and light which creates favorable climatic conditions to support life ○ 70% of the Earth's surface is covered by water which is needed to support life ○ Has an Ozone layer which protects life on Earth from hazardous ultraviolet radiation from the sun ● 70% of the Earth's surface is covered by water
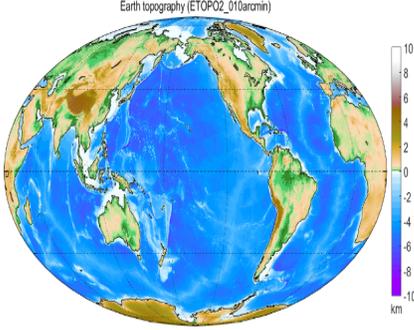
Earth topography (ETOPO2_010arcmin)

Source:
https://www.asu.cas.cz/~bezdek/vyzkum/rotating_3d_globe/figures/elevation_2d_map_Earth_topography_ETOPO2_010arcmin_GMT_globe_px0650.png

World in numbers: continents and oceans, countries and people.

● Learners will ask their family members or interview people around them to answer the questions in the **World in Numbers Worksheet** (it is preferred to have a hard copy of the worksheet. The worksheet is also provided as an Appendix for easy printing).

30 minutes

World in Numbers	
Question	**Answer**
How many continents are there in the world?	
Can you name them? (The child can name as many as they know)	
Do you know the name of the continent you live in?	
How many Oceans are there in the world?	
Can you name them? (The child can name as many as they know)	
How many countries are there in the world?	
Can you name two neighbouring countries?	
How many people live in this world?	

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https://forms.gle/LGAP9k17fMyJrKJN7

		Hint:
	40 minutes	- How many continents are there in the world? (Answer : 7) - Can you name the continents? (The child can name as many as they know) (Answer: Asia, Africa, Antarctica, Australia, Europe, North America, and South America) - Do you know the name of the continent you live in? - How many Oceans are there in the world? (Answer: 5) - Can you name them? (The child can name as many as they know) (Answer: Atlantic, Pacific, Indian, Arctic, Southern (Antarctic) Ocean) - How many countries are there in the world? (Answer: 195) - Can you name two neighbouring countries? (Answer: e.g Iran and Afghanistan, China and India) - How many people live in this world? (Answer: 7.9 billion) Let's make BIG numbers easier to understand - Have you realized how BIG our Earth is? With so many people and countries! Our own village/city looks so big, can you visualize how big the whole world is? Let's look at a few big numbers to help us understand the enormity of our planet. - Did you know?

Total Surface Area of Earth?
510.1 MILLION Square KM

Total Surface Area of Earth Covered by Water?
361.7 Million Square KM

Total Surface Area of Earth Covered by Land?
148.9 MILLION Square KM

Total Surface Area of Earth Covered by Salt Water?
350.8 MILLION Square KM

Total Surface Area of Earth Covered by Fresh Water?
10.8 MILLION Square KM

Asia: 44.58 Million Square KM
Africa: 30.37 Million Square KM
North America: 24.71 Million Square KM
South America: 17.84 Million Square KM
Antartica: 14.2 Million Square KM
Europe: 10.18 Million Squae KM
Australia: 7.692 Million Square KM

● These numbers really have made us understand how big and vast our planet is! These numbers are very difficult to remember, isn't it? Because they are in millions and millions! To make it easier for us to deal with huge numbers like these, mathematicians developed the idea of percentage! Percentages help shrink the biggest of numbers to a small number that can be remembered easily. Percent means "out of 100" or part of the whole.

● In the figure below, there are 100 squares, 50 of which are highlighted. To calculate the percentage of this highlighted area, we divide 50 by the total number of squares 50/100 = 0.5
● 0.5 is the decimal form of 50%, which we get by multiplying the result (0.5) into 100
● 0.5 x 100 = 50%
● We add the % sign to denote a percentage
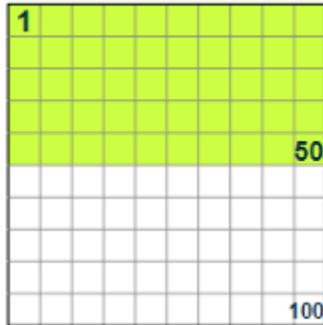
Can you calculate the percentage of the highlighted area in the following figure using the steps below? Find the answer to "D". Plug in values for A and B to find the answer:

Answer:
Number of highlighted cells = A
Total number of cells = B

A/B = C

C x 100 = D
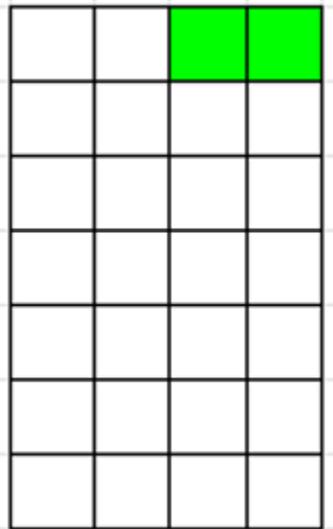
Lets calculate the percentage of land and water on Earth!

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		● Keep in mind that to calculate a percentage we need the following information
		A-What is the area we want to calculate? This will be the numerator
		B - What is the total area? This will be the denominator Divide A by B
		C - After the division you will get a number either it will be a whole number or decimal.
		- If it is a whole number that will be your answer
		- If it is a decimal number (e.g: 0.39984), we will use the rounding off concept. Follow the following steps:
		● Select a number to two decimal places (e.g 0.39).
		● If the second digit after the decimal is smaller than 5, do not change the rounding digit (rightmost number or second number after the decimal point). In that case the answer will stay the same. (e.g if the number is 0.24 or 0.31, it will remain the same)
		● If the second digit after the decimal is greater than 5, increase the rounding digit by one (0.01). In our example, 0.39 will become 0.40 (0.39 + 0.01)
		D - Multiply the answer from C into 100. This is the share or proportion of B that is made up of A!
		Wasn't that easy? Let's Practice!

Now calculate the following using the information below |
| 2 | 5 minutes | Today we will take our discussion further and explore the world around us.

"Hola! Do you know what it means? Hola is a Spanish word for Hello in English, and Bonjour in French. Spanish is spoken by more than 580 million people across the world, English is spoken by around 1.5 billion people around the world, and French by more than 270 million people around the world.Yesterday we learned about the Earth. Today we will take our discussion further and explore the world around us, but before that, we will reflect on the previous day's activities through the following questions":

● What were your key learning points yesterday?
● How many continents and oceans does our planet have, can you name them?
● Which activities did you find most interesting and why?
● How many countries are there in the world in total? |
| | 45 minutes | In this activity the learner will create a 3D model/map of planet Earth. All the learnings from the previous activities will be applied here to achieve our objectives. To complete the 3D model/map, learners should be encouraged to |

get as creative as possible. They can use any available resource to build their model/map.

Hint: some easy ways that learners can use to construct the globe is using paper bowls, layer on used paper and then drawing continents on the outer layer. They can also try wrapping a balloon or ball with paper. Alternatively, learners can make the following cutout, draw the continents and connect the numbered parts according to the sequence as shown below

15 minutes

● Learners will present their work to family members or peers and talk about the following:
  1. How they designed the model
  2. Highlight the different oceans and continents as shown in the model/map

● The parent need to observe and assess the model/map to see if it meets the criteria provided below:
  ● Model is 3-dimensional with the names of continents and oceans written clearly on it
  ● The model is durable
  ● Learners demonstrate creativity in creating the model

Reflection
Learners will reflect on their learning and experience in doing the project so far

		● What 3 important things have you learned? ● What 2 other things would you like to learn? ● What 2 things have you found difficult doing (if any)?

	20 minutes	● "Now that we are well aware of the big world we are living in with billions of people around the globe, we will go ahead and explore to what extent we are interconnected with one another despite our geographical differences. In the next activity, we will know more about how global our family is."
		
		● Activity: The learner together with the family members will answer a set of questions to realize our global interconnectedness (choose only the relevant questions). In each case, the family should ask the learner to draw a line from the country/continent where the family lives to the identified country/continent
		
		    ● Do we have family members living in other countries/ continents? Can you spot the country/continent on the world map?
		    ● Do we have friends from other countries or continents? Or anyone that we have heard of (celebrity, athlete etc.)? Can you spot the country/continent on the world map?
		    ● Do any of us use or know a salutation/greeting in another language? Where did that language originate?
		    ● Do any of us like a dish from a different culture/country?
		    ● Have any of us ever travelled to another country?
		
		● We live in an interconnected world, where events in one part of the world have a direct or indirect influence on other parts. The most recent example of this is how quickly Covid19 spread across the globe, a disease that originated in one part has led to cases in almost every other country. Despite the oceans and vast landmasses of this planet, we were not safe from the negative impact of human behavior.
		
		● To find out how global events affect our daily life. let's look into the COVID-19 pandemic:

		- Do you know where COVID-19 actually started? (which city, in which country, in which continent?) - Can you spot the country of origin on the map? - How has COVID- 19 affected you, your family, your school, your community and your country? - Can you spot your country on the world map? - How do you think COVID-19 moved from the country where it started to your country? - Do you know any other countries which have been greatly affected by the COVID-19? - Can you spot them on the world map? - Which countries are producing COVID-19 vaccines? Is your country one of them? - Where is your country getting/buying COVID-19 vaccines? - What does it mean for you that someone catching a virus in a faraway city, led to a global pandemic and had such a major impact on everybody's lives? • Learners will write an essay or few sentences based on their responses to the selected questions from the list above. The prompt for the essay is "Is a Our connected world better than a disconnected one for me?". In their essay, learners will describe their connections to other parts of the world. Learners will share their essay with family members for feedback. Feedback will include: - What do they love about the essay? - Any suggestions for improvement? Learners will use feedback from family to improve their essay.
	20 minutes	**The origin of things** "We have so many different things around us, but do we know where they were invented or used for the first time? Let me ask you a few questions and we can learn about the origin of many things we use daily!"

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Invention	Inventor	Country
Light bulb		
Telephone		
Airplane		
Camera		
Radio		

Input
- Light bulb (Answer: Thomas Edison, North America)
- Telephone (Answer: Alexander Graham Bell, Scotland)
- Airplane (Answer: Wright Brothers, North America)
- Camera (Answer: Joahnn Zahn, German)
- Raido (Answer: Guglielmo Marconu, Italy)

- "Isn't it amazing how something invented so far away is so common in our country that we can't even imagine life without it? This is how connected we are, a change happening in one country has the potential to impact the entire world"

- Identify "international" items in your own homes:
  - Make a list of 10-20 items and do some research (by asking caretakers, neighbors or other adults including shopkeepers) to find out where they are imported from! Learners can also read the tags and labels of products and items in their house to see where they were made.
  - Items can include produce and other food items, office/school supplies, clothing, vehicles etc.
  - Draw a table with two columns and write or draw the item in one column and its country of origin in the other
  - Find out how many countries are represented in your house!

- Learners should mark these countries on the world map

	5 minutes	The learners will be asked the following questions to gauge their understanding of this activity: ● What do you think of all the things we have at home? ● How many people do you think worked on them until they reached our house? (starting from extraction of raw material, to manufacturing, to transport.) ● Can we produce them in our own country? Why or why not?
3	5 minutes	Today you will learn about tolerance. **Reflections:** "Today it's the last day of our Big Big Earth project and I am proud of how far you have come. I am confident that we will enjoy the activities on our final day as much as we did the previous days. Before we jump to our activities, let's recall what we learnt yesterday": ● Do you remember what you learned yesterday? ● Do you have any family members living abroad? ● Can you recall an event which began in one country but took its toll on the rest of the world? ● Can you name a few inventions from other countries that are common in ours now? ● Which activities did you find most interesting and why?
	30 minutes	**Activity: Tolerance** ● "In this world, we live with 7.9billion other humans belonging to 195 countries. Despite that, we share a lot of similarities but we also have our differences. It's the differences that make us unique and interesting. Isn't it interesting to meet people from different cultures, who speak so many different languages?" ● Do you know how big 7 billion is? Can you write it down in numbers? To put the number of people on Earth in perspective, the number 100 has two zeroes, but 7 billion has 9 zeros - 7,000,000,000! There are 7,900,000,000 people living on Earth!

- Learners will write the number of people on earth in the following place value chart. Remember that the rightmost number is in the ones place, the second most right number is in the tens place, the third most right is in the hundreds place, and so on. What is the place of 6 in 670,000? An example is presented below using 345,000,000:

Hun-dred billi-ons	Ten billio-ns	Bill-i-ons	Hund red millio ns	Ten millio ns	Milli ons	Hund red thou sand s	Ten thou sand s	Thou sand s	Hund reds	Tens	Ones
			3	4	5	0	0	0	0	0	0

Now, plug in the number of people in the world in the following place value chart:

Hun-dred billi-ons	Ten billio-ns	Bill-i-ons	Hund red millio ns	Ten millio ns	Milli ons	Hund red thou sand s	Ten thou sand s	Thou sand s	Hund reds	Tens	Ones

Learners will fill out this table and discuss it with their family or class. They will then compare it with other learners (or neighbors) who come from different backgrounds and find out how many shared and unique items there are - they can also find the percentage of shared and unique items:

Things about me that I did not choose	Things I chose for myself!
Name	My favorite dish
Nationality	My super hero
Religion	Favorite story
Eye-color	Favorite game

Things that I did not choose	Things I chose for myself!

45 minutes

Conduct a detailed discussion on the card presented by learners. The discussion should be carried forward and focused on the theme of perceiving differences and building barriers between peoples based on things they have not chosen.

- What similarities do we all share in the family
- What are our differences?
- Do you think there are children from around the world who share similarities with you?
- Would you prefer playing your favorite game with your parents or with a child from another country? Why?

"Isn't it strange that we hold things against people that we have no control over? The color of someone's skin, the ethnicity, the caste one is born into, the language one speaks. Isn't it silly to use these to build barriers between ourselves?

15 minutes

Reflection questions
Learners will reflect on the following questions:
- What do you think when you see a child who has a different skin color? Do you think they may share similarities with you?
- What do you feel when you are with people who speak a language you don't understand?
- How would you react towards somebody who speaks a different language?

| | | ● Would you like to live in a country where people have a different skin colour, speak a different language and eat different food from yours? ● If you have a friend who follows a different religion, what gift would you give them at their religious celebrations? ● How would you behave with someone who is differently abled? **Final project reflection** Learners will reflect on their overall experience in doing the project using the questions below: ● What I like most about the project? ● What did I find difficult to do? ● What are the key things I learnt from the project? ● What will I do differently next time? |

ASSESSMENT CRITERIA

- Observation of engagement while working on tasks.
- Interactions and answers to the questions.

ADDITIONAL ENRICHMENT ACTIVITIES

- You can ask your learner to draw a map of the world with nothing written on it, and then play a game with family members to answer all questions that on World in numbers worksheet
- You can ask your learner to make a puzzle out of the world map, by drawing it and then cutting it into square pieces, to challenge family members to put it together.

MODIFICATIONS TO SIMPLIFY

- A simpler version of this project would be to do the activities of Day 1 and 3 only.

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World in numbers worksheet

The Earth is like a ball.

On its surface there is land and water. Large pieces of land are called continents, and large water surfaces are called oceans.

Source: http://www.myschoolhouse.com/courses/O/1/76.asp

- How many continents are there in the world? Please name them.

- How many oceans? Please name them.

- In which continent do we live?

- If we want to travel to North America, what oceans and continents do we have to cross?

Guesstimate?

o How many countries are there in the world? (make a guess first, then try to find out by searching or asking your parents, teachers or friends).
o How many people are there living around the whole world? (make a guess first, then try to find out by searching or asking your parents, teachers or friends).
o How many children are there in the world?

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Population distribution

What percentage of people live in each continent?

Source: Knovva Academy https://www.youtube.com/channel/UCwkpuaI46XUopl9tNGli4fw

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