Human Footprint worksheet

 The video details an average human living in the United States and tracks their consumption of the following resources/items.

 The numbers are very nearly identical for Canada, and most other developed nations.

The video uses IMPERIAL MEASUREMENTS. Here are some helpful **approximate** conversions to metric

1 Pint ≈ 500mL 1 Gallon ≈ 4 Litres 1 Pound ≈ 0.5kg 1 ton ≈ 900kg 1mile ≈ 1.6km

If we think of the earth as being 1 day old then we have only been around for a

few \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Humans do not impact only \_\_\_\_\_\_\_ of earth’s surface meaning that we have a direct impact on an astonishing \_\_\_\_\_\_\_\_\_ of earth’s surface. How many people live in the United States:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. **Diapers – 1 Baby**

Babies spend their first \_\_\_\_\_\_\_\_ years in diapers. If we use disposable diapers we will

use \_\_\_\_\_\_\_\_\_\_\_ diapers over that time period. It takes \_\_\_\_\_\_ pint of crude oil to make 1 diaper. And it takes \_\_\_\_\_\_\_\_\_pounds of plastic and \_\_\_\_\_\_\_\_\_\_\_trees to make diapers for 1 baby over their diaper-wearing period. A 500 year supply of diapers would cover the entire state of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

If you use reusable cloth diapers (thought to be more environmental friendly) it

will take \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gallons of water to wash them for 1 baby’s diaper-wearing period.

2. **Milk**

It takes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cows (more than human population of New Jersey) to feed

humans in the United States (annually). Each human (in U.S.) consumes \_\_\_\_\_\_ pints of milk a

week or \_\_\_\_\_\_\_\_pints a month or \_\_\_\_\_\_\_ pints a year. We will each consume \_\_\_\_\_\_\_\_\_ pints of milk

per person per lifetime. But milk is only a tiny part of our diet. As a nation, we eat a total of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pounds of food everyday.

3. **Meat – beef, pork, chickens**

Each person, on average, (in U.S.) eats \_\_\_\_\_\_\_ tons of beef in a lifetime.

Each person, on average, (in U.S.) eats \_\_\_\_\_\_\_\_\_\_\_\_\_ tons of pork (pigs) in a lifetime.

Each person, on average, (in U.S.) eats \_\_\_\_\_\_\_\_\_ chickens (\_\_\_\_\_\_\_ tons) in a lifetime.

4. **Eggs**

We eat \_\_\_\_\_ eggs a week or \_\_\_\_\_\_ in a month and \_\_\_\_\_\_\_ eggs a year. We eat \_\_\_\_\_\_\_\_ tons in a

lifetime or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ individual eggs.

5. **Bread – wheat**

America devotes an area the size of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ just to wheat fields. We each eat \_\_\_\_\_\_\_\_\_\_\_ loaves of bread a year, which is \_\_\_\_\_\_\_\_\_\_\_\_\_ ( \_\_\_\_\_\_\_\_\_ slices) loaves of bread in our lifetime. We also eat \_\_\_\_\_\_\_\_\_\_\_\_ hot dog rolls (buns) and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hamburger rolls (buns) in our lifetimes.

6. **Fruit – bananas, oranges**

Bananas travel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ air miles to reach us. Each of us eats \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in our

lifetime. Also, we eat \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ oranges in our lifetime.

7. **Trash – plastic, cans**

We each produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pounds (or about \_\_\_\_\_\_\_ tons) of trash in our lifetime. Not all

is plastic, some includes soda cans (aluminum). Americans drink \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cans (\_\_\_\_\_\_\_\_\_\_\_\_\_ a second) of soda a day – wow is that a lot! Over a lifetime, a person drinks \_\_\_\_\_\_\_\_\_\_\_\_\_\_ soda cans.

8. **Showers and cleaning products**

An average person in the U.S. takes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ showers in their lifetime. We use \_\_\_\_\_\_\_\_\_\_ toothbrushes, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tubes of toothpaste, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bars of soap, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_bottles of shampoo, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sticks of deodorant, and \_\_\_\_\_\_\_\_\_\_\_ tubes of hair styling gel. The cosmetic industry uses over \_\_\_\_\_\_\_\_\_\_\_\_\_\_ different ingredients.

9. **Water use**

Excluding showers, we will use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gallons of water in our lifetime, which equals 2 Olympic swimming pools. That equals keeping the tap on continuously for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; including showers, we use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gallons of water which is like leaving the tap on for 1 year and 9 months. We have more than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ miles of sewer lines, enough to rap around the world \_\_\_\_\_\_\_\_\_\_ times.

10. **Recycling**

If you recycled the \_\_\_\_\_\_\_\_\_\_\_\_\_ soda cans you use in your lifetime, you would save enough energy to power a television for over \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hours or well over \_\_\_\_\_\_\_\_\_\_\_years.

11. **Clothes – money spent**

At any given time a man will have \_\_\_\_\_\_\_\_\_\_\_ pairs of jeans and about \_\_\_\_\_\_\_\_\_\_\_ tee-shirts. On average, each garment lasts about \_\_\_\_\_\_\_ years. A man spends \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on clothes over his lifetime. On average, a women’s wardrobe is even more extensive and expensive, but the video doesn’t give any facts/statistics on this.

12. **Beer and wine**

On average each U.S. person drinks \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ beers and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bottles of wine in their lifetime.

13. **Housing**

On average we move about \_\_\_\_\_ times in our lifetime. It takes \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make an average home. In a relatively small \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ square foot house we come across \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ square feet of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Every year \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ houses are built in the U.S.. An average new homeowner spends nearly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on furnishings and decorations (carpets, rugs, tables and chairs).

14. **Home appliances**

We use (**and dispose of**) \_\_\_\_\_\_\_\_\_\_ washing machines, 5 \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_ air conditioners, 8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, 10 \_\_\_\_\_\_\_\_\_ , and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in our lifetime. These numbers are continuing to rise!

15. **Coal – carbon footprint**

Over half our electricity comes from 1 of 600 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ power plant stations. Coal is a fossil fuel containing 40-90% \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When burned it releases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a

greenhouse gas, which builds up and heats the atmosphere. The average American creates \_\_\_\_\_\_\_\_\_\_\_\_\_ of CO2 emissions every year compared to a worldwide average of \_\_\_\_\_\_\_\_\_\_\_ (THAT’S PER PERSON). If we

simply turned down our thermostats 2 degrees during the winter, we would each save \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ≈ 1 ton from being released into the atmosphere every year.

16. **Televisions**

The average home has at least \_\_\_\_\_\_\_\_\_\_\_\_ TV sets and the average American watches \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of TV every day which is over \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over the course of one’s lifetime sitting in front of the tube.

17. **Cars**

The U.S. has only \_\_\_\_\_\_\_\_\_\_\_\_\_ of the world’s population but has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the world’s cars. We have adapted cities with freeways for our cars. The parts from a typical car come from raw material gathered where? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

We each own an average of \_\_\_\_\_\_\_\_\_\_\_\_\_\_cars in our lifetime (there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cars in the U.S.). It is when the cars are fueled is when we really see their impact. Americans use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and it takes half of that to fuel our cars. We use an astonishing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of oil **everyday.** By driving \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_km) per year on average we will drive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_km) in our lifetime, enough to circle the world \_\_\_\_\_\_\_\_\_\_ times. That is 31,350 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ . Each car produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ emissions a year and each person produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of carbon emissions **(just from driving)** in a lifetime, which is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ more than the average French citizen and 20 times more than a person living in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

18. **Wildlife travel/habitat destruction**

Studies show that \_\_\_\_\_\_\_\_\_\_\_\_\_ of the earth’s land is directly influenced by man-kind. If every person in the world lived like we do in the U.S. we would need at least \_\_\_\_\_\_\_\_\_ planets to meet our demand for natural resources and to absorb our \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ . At least \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the U.S. gets destroyed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of every day (1 million per year). As many as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of threatened species live near us in metro/suburban areas.

Human Footprint worksheet - **Answers**

If we think of the earth as being 1 day old then we have only been around for a

few seconds. Humans do not impact only 17% of earth’s surface meaning that we have a

direct impact on an astonishing 83% of earth’s surface. How many people live in the

United States: 304 million. The video details an average human living in the United

States and tracks their consumption of the following resources/items:

1. **Diapers – 1 Baby**

Babies spend their first 2 ½ years in diapers. If we use disposable diapers we will

use 3,796 diapers over that time period. It takes ½ a pint of crude oil to make 1 diaper.

And it takes 715 pounds of plastic and 4 ½ trees to make diapers for 1 baby over their

diaper-wearing period. A 500 year supply of diapers would cover the entire state of

Texas.

If you use reusable cloth diapers (thought to be more environmental friendly) it

will take 22,455 gallons of water to wash them for 1 baby’s diaper-wearing period.

2. **Milk**

It takes 9.2 million cows (more than human population of New Jersey) to feed

humans in the United States (annually). Each human (in U.S.) consumes 3 pints of milk a

week or 14 pints a month or 168 pints a year. We will each consume 13,056 pints of milk

per person per lifetime.

But milk is only a tiny part of our diet. As a nation, we eat a total of

1,649,630,427 pounds of food everyday.

3. **Meat – beef, pork, chickens**

Each person on average (in U.S.) eats 2 ½ tons of beef in a lifetime. Each person

on average (in U.S.) eats 1.7 tons of pork (pigs) in a lifetime. Each person on average (in

U.S.) eats 1,423 chickens (2.3 tons) in a lifetime.

4. **Eggs**

We eat 5 eggs a week or 21 in a month and 255 eggs a year. We eat 1.3 tons in a

lifetime or 19,826 individual eggs.

5. **Bread – wheat**

America devotes an area the size of Wyoming just to wheat fields. We eat 55

loaves of bread a year, which is 4,376 (87,000 slices) loaves of bread in our lifetime. We

also eat 5,442 hot dog rolls and 12,129 hamburger rolls in our lifetimes.

6. **Fruit – bananas, oranges**

Bananas travel 11 million air miles to reach us. Each of us eats 5,067 in our

lifetime. Also, we eat 12,888 oranges in our lifetime.

7. **Trash – plastic, cans**

We each produce 29,700 pounds (or about 15 tons) of trash in our lifetime. Not all

is plastic, some includes soda cans (aluminum). Americans drink 178,000,000 (178

million) cans (2,000 a second) of soda a day – wow is that a lot! Over a lifetime, a person

drinks 43,371 soda cans.

8. **Showers and cleaning products**

An average person in the U.S. takes 28,433 showers in their lifetime. We use 156

toothbrushes, 389 tubes of toothpaste, 656 bars of soap, 198 bottles of shampoo, 272

sticks of deodorant, and 35 tubes of hair styling gel. The cosmetic industry uses over

5,000 different ingredients.

9. **Water used**

Excluding showers, we will use 1.2 million (1,277,043) gallons of water in our

lifetime, which equals 2 Olympic swimming pools. That equals keeping the tap on

continuously for 62 weeks; including showers, we use 1.8 million gallons of water which

is like leaving it on for a year and 9 months. We have more than 600,000 miles of sewer

lines, enough to rap around the world 24 times.

10. **Recycling**

If we recycle the soda cans (43,371) we use in our lifetime, you would save

enough energy to power a television for over 130,000 hours or well over 14 years.

11. **Clothes – money spent**

At any given time a man will have 7 pairs of jeans and about 25 tee-shirts. On

average, each garment lasts about 3 years. A man spends $52,972 on clothes over his

lifetime. A women’s wardrobe is even more extensive and expensive, but the video

doesn’t give any facts/statistics on this.

12. **Beer and wine**

On average each U.S. person drinks 13,248 beers (12 ounces I assume) and 942

bottles of wine in their lifetime.

13. **Housing**

On average we move about 10 times in our lifetime. It takes 64 trees to make an

average home. In a 2,000 square foot house we come across 13,837 square feet of

lumber. Every year 1.5 million houses are built each year. An average new homeowner

spends nearly $9,000 on furnishes and decorations (carpets, rugs, tables and chairs).

14. **Home appliances**

We use 7 washing machines, 5 refrigerators, 7 air conditioners, 8 microwaves, 10

TVs, and 15 computers in our lifetime.

15. **Coal – carbon footprint**

Over half our electricity comes from 1 of 600 coal-burning power plant stations.

Coal is a fossil fuel containing 40-90% carbon. When burned it releases carbon dioxide, a

greenhouse gas, which builds up and heats the atmosphere. The average American creates

22 tons of CO2 emissions every year compared to a worldwide average of 6 tons. If we

simply turned down our thermostats 2 degrees during the winter, we would each save

2,000 pounds released into the atmosphere every year.

16. **Televisions**

The average home has at least 2 TV sets and the average American watches 4

hours of TV every day which is over 12 ½ years over the course of one’s lifetime sitting

in front of the tube.

17. **Cars**

The U.S. has only 5 percent of the world’s population but has 30 percent of the

world’s cars. We have adapted cities with freeways for our cars. The parts from a

typical car come from raw material gathered where? \_Around the globe/world\_

We each own an average of 12 cars in our lifetime (there are 200,000,000 cars in

the U.S.). It is when the cars are fueled is when we really see their impact. Americans use

¼ of the world’s oil and it takes half of that to fuel our cars. We use an astonishing

10,500,000 barrels of oil everyday. By driving 11,000 miles per year on average we will

drive 627,000 miles in our lifetime, enough to circle the world 25 times. That is 31,350

gallons of gasoline. Each car produces 6 tons of carbon emissions a year and each person

produces 360 tons of carbon emissions in a lifetime, which is 5 times more than the

average Frenchman and 20 times more than a person living in India.

18. **Wildlife travel/habitat destruction**

Studies show that 83% of the earth’s land is directly influenced by man-kind. If

every person in the world lived like we do in the U.S. we would need at least 4 planets to

meet our demand for natural resources and to absorb our waste and pollution. At least 2

acres of forest in the U.S. gets destroyed every minute of every day (1 million per year).

As many as 13 percent of threatened species live near us in metro/suburban areas.