SÃO PAULO
GOVERNO DO ESTADO
Secretaria de Educação

USAID
DO POVO DOS ESTADOS UNIDOS

OIM ONU MIGRAÇÃO

APRENDER SEMPRE

4º ANO
ENSINO FUNDAMENTAL

MATEMÁTICA

Dear student and caregiver,

To prevent the dissemination of the new coronavirus, and to preserve everyone's health, school activities were paralyzed to reduce the circulation of people. In order not to interrupt your school studies even during the period of suspension of classes, the State Secretary of Education has prepared some materials to support you at this moment.

This material is divided in two parts: one on Portuguese Language and the other one in Mathematics. Here you will find activities to enhance your knowledge. Also, two inserts are included: one with information about COVID-19 and the other one with guidelines and suggestions for you to organize a study routine and continue learning, even without going to school!

When you return to school, you must hand over the activities to your teacher. That way you can have feedback on what you managed to advance and be supported to learn even more!

Good luck with your studies!

Nome da Escola: _____

Nome do Aluno: _____

Data: __/___/2020 **Ano/Turma 4ª Ano EF** _____

Sequence 1 – Indigenous population

Ilustração: Ana Rita da Costa

ACTIVITY 1

Cauã, Tainá and Ubiratan's school invited some indigenous people from the Guarani community to visit and talk to the kids about their traditions and ways. They said that always by the end of the day they usually join the children to tell stories about their culture, which were also listened to by their parents and grandparents.

Cauã, Tainá and Ubiratan wanted to know more about the diverse indigenous people, they researched and registered the data collected.

1. Cauã discovered that in 2010, there were 12 977 indigenous people living in the city of São Paulo, at the Parelheiros neighborhood among others, and in cities at the state's coast there are 24 918 indigenous people (IBGE 2010).

Estimate the total of the indigenous population distributed in the capital and the coast of São Paulo at that time. Calculate that total and verify your result with the aid of a calculator.

2. Ubiratan told his friends that in the municipality of São Paulo in 2010 there were 11 918 indigenous people living in urban areas. If the given total of indigenous people at that time was 12 977, how many of them lived in indigenous communities (aldeias)? (IBGE 2010). Verify the result with the aid of a calculator.

3. Tainá discovered updated data in 2016, showing the growth of demarcated indigenous lands in the State of São Paulo. Many families from these populations are registered at the CRPSP - Centro Regional de Psicologia de São Paulo.

Polo do CRPSP	Indígenas inscritos
Bauru	946
São Paulo	4 211
Peruíbe	123
Mongaguá	623
Registro	291

Ilustração: Ana Rita da Costa

a. How many indigenous people are registered at the CRPSP? How many had their land demarcated in coastal zones?

ACTIVITY 2

Ubiratan and Tainá like to do calculations in different ways and then they compare the results. Observe how they solved the addition 326 + 298:

Tainá	Ubiratan
300 + 20 + 6 200 + 90 + 8 500 + 110 + 14 = 624	1 1 3 2 6 + 2 9 8 6 2 4

REMEMBER:

In the addition

the numbers 326 and 298 are called **ADDENDS**

The result 624 is called the **SUM** or **TOTAL**

1. Choose one of the ways - that of Tainá's or that of Ubiratan's - and solve the additions. Verify the results with the aid of a calculator.

a. 2 514 + 5 500 =	**b.** 5 731 + 999

Now watch the proceedings of the two friends for the subtraction 782 – 273:

Tainá	Ubiratan
700 + 70 + 12 – (200 + 70 + 3) 500 + 0 + 9 = 509	7 1 7 ~~8~~ 2 – 2 7 3 5 0 9

The result was the same, that is 509, but the ways to calculate it were different.

REMEMBER:
In the subtraction the number
782 is called **MINUEND**:
273 is the **SUBTRAHEND**;
509 is called the DIFFERENCE or REST

2. Choose one of the ways - that of Tainá's or that of Ubiratan's - and solve the subtractions. Verify the results with the aid of a calculator.

a. 2 514 – 5 500 =	**b.** 5 731 – 999

Now, Tainá did the multiplication by estimative and Ubiratan by the operative technique. See how they did the calculus of 225 x 19:

Tainá	Ubiratan
225 x 20 = 4500 4500 – 225 = 4275	225 x 19 45 + 180 1800 2250 4275

REMEMBER:
IN MULTIPLICATION:
THE NUMBERS 225 AND 19 ARE CALLED **FACTORS**; THE RESULT 4 275 IS THE **PRODUCT OF THE FACTORS.**

Choose one of the proceedings - that of Tainá's of that of Ubiratan's - and solve the multiplications. Verify the results with the aid of a calculator.

a. 789 x 11 =	**b.** 123 x 99

ACTIVITY 3

1. Cauã and Tainá did the multiplication of 32 times 12 in two different manners. Watch:

Tainá	Cauã
12 x 32 = 12 x (30 + 2) = 360 + 24 = 384	30 + 2 x 10 + 2 60 + 4 300 + 20 300 + 80 + 4 = 384

Use the way Cauã used to solve the following multiplications. Verify the result with the aid of a calculator.

a. 22 x 15 =	**b.** 73 x 12 =

Use the way Tainá used to solve the following multiplications. Verify the result with the aid of a calculator.

a. 12 x 17 =	**b.** 34 x 22 =

REMEMBER: Tainá used the distributive property of multiplication, in **relation to addition**. But it is also possible to do multiplication by the distributive property in **relation to subtraction**. Multiplying 12 times 29 is the same as multiplying 12 times 30 and then subtracting 12

ACTIVITY 4

1. Ubiratan challenged Cauã to do multiplications and divisions by 10, 100 and 1 000. Help Cauã complete the calculation:

a. 4 x 1 = 4 4 x 10 = 40 4 x 100 = 4 x 1 000 =	**b.** 47 x 1 = 47 x 10 = 47 x 100 = 47 x 1 000 =
c. 5 x 1 = 5 5 x 10 = 5 x 100 = 5 x 1 000 =	**d.** 14 : 1 = 140 : 10 = 1400 : 100 = 14 000 : 1 000 =

2. Did you observe any pattern? Which one or ones?

3. Observe if that rule applies for any number:

a. 109 x 10 = 109 x 100 = 109 x 1 000 =	**b.** 50 x 10 = 50 x 100 = 50 x 1 000 =
c. 1 050 : 10 = 10 500 : 100 = 105 000 : 1 000 =	**d.** 800 : 10 = 80 000 : 100 = 800 000 : 1 000=

Sequence 2 – Artcraft by Cauã's and Tainá's mothers

ACTIVITY 1

Cauã's and Taina's mothers are craftswomen. Many times they join their works to form kits to sell.

Ilustração: Ana Rita da Costa

1. Miss Nina, Tainá's mother, needs to find out how many beads she must buy to do three types of bracelets. Tainá organized the quantities and calculated the total of beads that she has to buy. Help Tainá to do that work.

a. The bracelet that Nina will do uses 12 big beads and in between, there are 3 smaller ones. She will produce 25 of these bracelets. How many big beads does she need to buy?

b. How many small beads will she need for the 25 bracelets?

c. How many beads she will use in total?

2. Miss Nina did another type of bracelet, with 15 colored beads all with the same size. Miss Nina delivers 120 bracelets of this kind each week. She has 68 packages of those beads, each one with 100 beads. Do you think that it is enough material for one-week's work?

a. How many beads does Nina use each week?

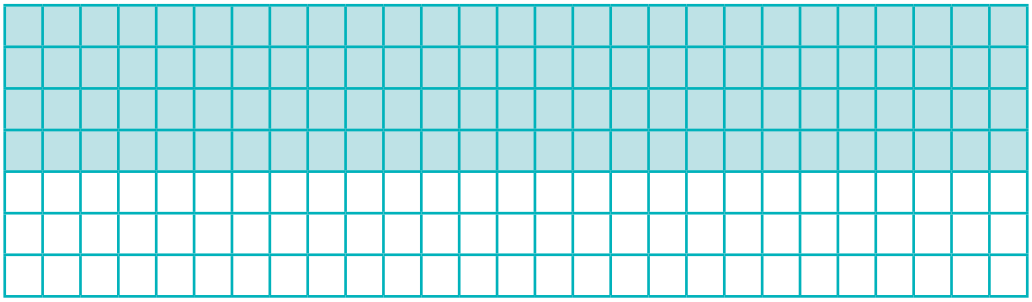
b. For how many weeks will she have enough material and will not have to buy any more? Explain your reasoning.

c. Knowing that a month has 4 weeks, how many beads packages will she need to produce bracelets for a month?

ACTIVITY 2

Miss Isis, Cauã's mother, makes bracelets and collars but she works with another artistic style. She also buys packages with 100 beads.

1. She has to make 15 bracelets with that pattern, given that each square represents a bead. The first four lines in orange will have big beads, and the last three ones, in white, small beads.



a. How many big beads do you think she will use for one bracelet? And how many small ones?

b. Do the calculus to find out the total of big and small beads necessary to make the 15 bracelets.

ACTIVITY 3

1. Miss Isis is going to make a collar and wants to combine black, blue, white, and green beads with crystal, silver, and golden pieces.

	Black	Blue	White	Green
Crystal				
Silver				
Golden				

a. How many combinations can she make?

2. Miss Isis has a pot with 185 pearls, another one with 76 and she bought 3 more packages with 100 beads each one. How many pearls does she have now?

3. She wants to make bracelets with 18 pearls each. How many bracelets will she be able to make? Explain how you found out.

ACTIVITY 4

Tainá had some homework problems to solve. See how she solved them. Do the calculus and verify if the results presented by Tainá are correct.

1. Our school has 1 501 students, from them 853 are girls. How many boys are there?

```
  4
1 5 0 1
- 8 5 3
  7 5 2
```

2. A craftswoman received from the sale of her bracelets 1 938 reais and from the earrings and collars order, she received, 2 406 reais. How much did she receive?

```
  1 9 3 8
+ 2 4 0 6
  3 4 3 5
```

Tainá likes to estimate the results before doing the calculus. Do like her, first of all, estimate, then calculate and lastly, verify your answers with the aid of a calculator.

a. If the parcels are 354 and 647, do you think the addition will be more or less than one thousand?

Estimative:

Calculus:

b. What is the difference between 1 002 and 248? More or less than 800?

Estimative:

Calculus:

Sequence 3 - Measure and weight, it is just practice

ACTIVITY 1

Ilustração: Ana Rita da Costa

1. Cauã and Ubiratan read that some indigenous peoples go out to hunt animals, so they walk for hours until they find a good animal for eating. The kids decided to walk around the park that is close to Tainá's house to discover, observe, and map some of the birds that inhabit there. They will not go hunting; they only want to know, in their walking, how many "little animals" there are. The park has a length of 1,500 meters and they walked around it twice to make their first observations.

How many meters did they walk?

2. The kilometer is one of the multiples of the meter. One kilometer is equal to 1 000 meters. Since the kids walked 3 000 meters, this corresponds to how many kilometers (km)? Use the measures table to discover.

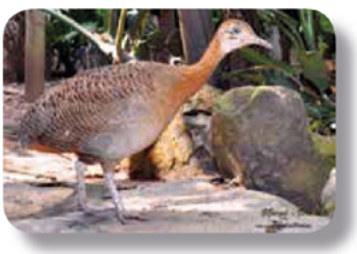
Measure unit	Value
km	
hm	
dam	
m	
dm	
cm	
mm	

3. What happened in the transformation?

ACTIVITY 2

1. After research on both parks, the one close to Tainá's house and the Cantareira park, Cauã and Ubiratan discovered that on both places there are at least 3 birds in common: the garça, the tuim, and the macuco. The garça is approximately 1m high, the macuco 52 cm, and the tuim 12cm. Indicate in centimeters (cm) the height of the garça in the table of measures.

Foto: Wikimedia Commons



Disponível em: https://www.flicr.com/photos/22551294@N08/6154495508. Acesso em: 8 mar. 2018

Disponível em: https://zoologia2013.com.br/2013/12/tuim-de-asa-azul-forpus-xanthopterygius.html. Acesso em: 8 mar. 2018

_____ _____ _____

Measure	Value
km	
hm	
dam	
m	

Measure unit	Value
dm	
cm	
mm	

ACTIVITY 3

1. After the walk, Ubiratan and Cauã went to Tainás house. She realized that they were tired and offered them a watermelon juice. The jar she put on the table had 850 ml. If each one of the three drinks a cup 250 ml, is there going to be any juice left, or is it going to be missing? How much?

2. Cauã liked the juice served by Tainá very much and asked her de recipe. Tainá said that for every 2 cups of watermelon juice (400ml) the used one cup of water (200ml). This recipe equals one liter, more than one liter or less that one liter?

3. How many litters correspond to 2 000 ml? Knowing that 1 000 ml corresponds to 1 liter, then 2 000 ml corresponds to _____ liters.

ACTIVITY 4

Cauã told his family that he had learned to make a very tasty juice at his friend's house. He explained the necessary quantities to make it and said he would make juice for everyone. His father realized that the kid was excited about the necessary measurements to prepare the juice, so he took advantage and asked him if he knew other measurement units. Cauã answered "I know some", "Do you know the ton? - his father asked?

REMEMBER:
A ton is a measurement used to weight the mass of very heavy loads, such as the ones transported by trucks, boats, aircrafts and trains. **One ton (t)** is equal to **1 000 kg**

Let's see if you can transform the following measurements into tons!

1. Transform the truck mass measurements into tons:

A small truck has a mass average 16 000 kg	
A tractor has a mass average of 41 500kg	
A tractor trailer has a mass average of 57 000 kg	

Sequence 4 – Diversity of indigenous peoples

ACTIVITY 1

Cauã, Tainá, and Ubiratan carried out some research at their school about indigenous peoples and organized a list with the names of some of the peoples. They asked their colleagues which people they would like to research. Finally, they organized the data collected in a table and then in a graph.
Complete the result of the research, indicating the number of students surveyed. Then give a title for the table.

_____

Povos indígenas	Anotação das opiniões	Nº de entrevistados
Guaranis		
Xavantes		
Caigangues		
Terenas		
Ticunas		
Outros		

a. Which people received more votes?

b. Which one had the least number of votes?

c. How many students were interviewed?

d. Which peoples had the same number of votes?

ACTIVITY 2

Tainá, Cauã and Ubiratan are going to organize the data collected in a column graph, they think it is clearer to see the results. Help them organize that graph.