

CONNECT

Inclusive open schooling
with engaging and
future-oriented science



BEST PRACTICES

Study about the historical context of epidemics and pandemics.

ABOUT THE PARTNER

ORGANIZATION	PUCPR APC
COUNTRY	Brazil
INTERVIEWER	Patrícia Tprres
DATE	04/02/2022

ABOUT THE INTERVIEWED TEACHERS

SCHOOL	Professora Adelina Régis Elementary School
Name of teachers (for good practice certificate)	Mara Lúcia Castilho
GENDER	female
SUBJECT (Science, Physics, Chemistry, Biology...)	History and Science.
Were many lessons used in the open education?	Yes
Title of the resource used in the open education	EPIDEMICS E PANDEMICS THROUGHOUT HISTORY
Types of scientific actions (structured or open scenery)	Open Scenery
Curriculum topics	COVID-19. Social and cultural contexts in epidemics and pandemics. Value, Moral, Ethics, Time, Space, Social Relations,

ABOUT STUDENTS

Degree	1 ^a , 2 ^a and 3 ^a grade of Brazilian New High School
Age	14 to 17 students
Total of participant students	180 students
Total of students who concluded scientific actions	165 students

SCIENTISTS INVOLVED:

Name	
Field	





QUESTIONNAIRE

01. How have you (teachers) used the resources of the open education? Could you describe what you've done in your classes?

Activities of the students with scientists:

Activities of the students with families:

Students collect information with their families about the object in study. They researched in bibliographic contributions the scientific content about epidemics and pandemics with emphasis in aspects, cause and effect in a social context. Societies which were several times stricken by epidemics and pandemics. Ethic challenges of health, economy, politics and human rights which became important topics in making decisions. Exposition with a performance to represent main epidemics and pandemic in a chronological world line and the timeline of COVID-19.

02. How have your students used CONNECT resources? Do you have (or could you describe) any sample of the best scientific practices (for our website)?

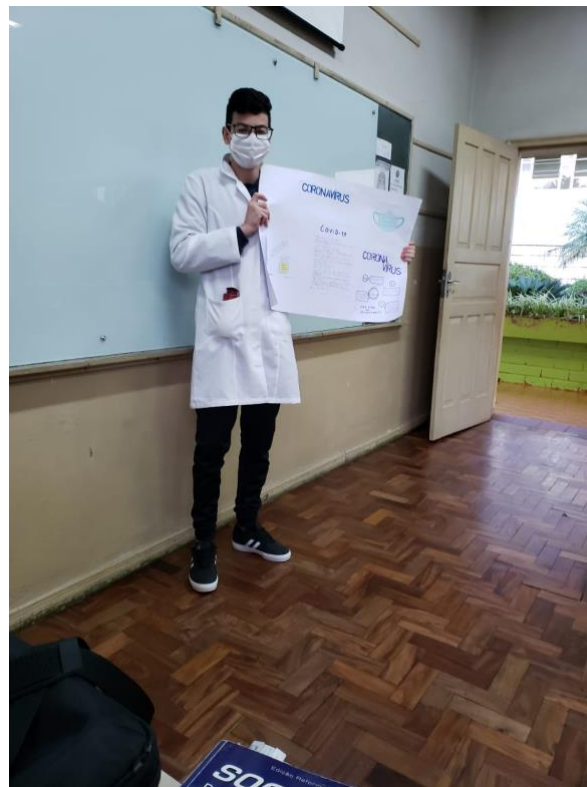
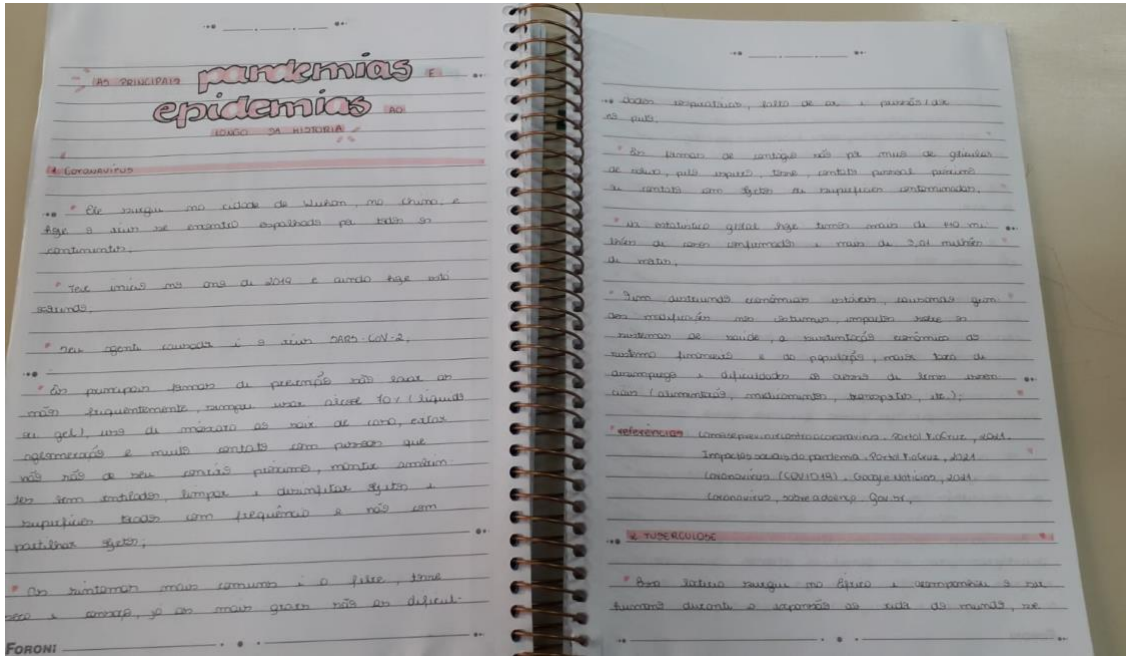
Any examples of what students have prepared?

- Analyse the history of epidemics and pandemics in the timeline of the current context of COVID-19 pandemic.
- Identify the differences and similarities between transmissible diseases in the past and the pandemic in XXI century.
- Read the available material such as texts, videos and the book “A história da humanidade contada pelos vírus”, written by Stefan Cunha Ujvari,
- Locate on maps the countries where some epidemics have begun;
- Analysis of scientific articles about social relation, moral, ethics and pandemic;
- Debate in classroom about the issue;
- Conceptual maps elaboration;
- Documentaries concerning the history of pandemics;
- Posters or boards with elements related to pandemics;
- Exposition of the historical study with performances of the main epidemics and pandemics which haunted the humankind.





Slide? Posters? Videoclip?
(Add images if possible)





Cronologia do novo Coronavírus

2019

- 30 de dezembro** - China emite alerta à OMS sobre pneumonia desconhecida
- 21 de janeiro** - EUA confirmam primeiro caso em território norte-americano; OMS confirma transmissão "de pessoa para pessoa"
- 24 de janeiro** - França confirma três casos da infecção, primeiros na Europa
- 27 de fevereiro** - OMS pede uso racional dos equipamentos de proteção individual devido à escassez global
- 11 de março** - OMS DECLARA PANDEMIA. Brasil suspende aulas e serviços
- 17 de março** - Confirmada primeira morte por COVID-19 no Brasil
- 11 de abril** - Publicado primeiro esboço das potenciais vacinas contra COVID-19
- 16 de abril** - Ministro da Saúde do Brasil, Luiz Henrique Mandetta, anuncia que **deixará o cargo**; Nelson Teich é o substituto
- 19 de junho** - Brasil ultrapassa marca de **1 milhão de casos**
- 23 de junho** - Vacina de Oxford começa a ser testada no Brasil
- 8 de dezembro** - Britânica de 90 anos é a primeira pessoa no mundo a ser **vacinada** contra a COVID-19

2020

- 9 de janeiro** - Profissionais chineses identificam que pneumonia é causada por um novo coronavírus
- 11 de janeiro** - Morre primeiro paciente chinês em decorrência de infecção pelo novo coronavírus
- 13 de janeiro** - OMS aponta primeiro caso da infecção fora da China, na Tailândia
- 2 de fevereiro** - Escritórios regionais da OMS recebem primeiros kits de teste RT-PCR, considerado padrão-ouro
- 11 de fevereiro** - Doença é intitulada de COVID-19
- 26 de fevereiro** - Confirmado o primeiro caso de coronavírus no Brasil, em São Paulo
- 21 de março** - Todos os estados brasileiros confirmam casos de COVID-19
- 4 de abril** - OMS confirma **1 milhão de casos** de COVID-19 no mundo
- 28 de março** - Brasil já tem **mais de 100 mortes** pelo novo coronavírus
- 15 de maio** - Ministro da Saúde do Brasil, Nelson Teich, **deixa o cargo**
- 21 de maio** - Brasil bate marca de **mil mortes diárias**
- 17 de junho** - Estudo sobre hidroxicloroquina para tratamento da COVID-19 é interrompido, evidências mostraram que medicamento **não reduzia mortalidade** dos pacientes internados
- 11 de setembro** - Número de **mortes** nas Américas chega a **500 mil**
- 23 de outubro** - Anvisa **autoriza** importação da Coronavac
- 16 de setembro** - General Pazueto, que há quatro meses ocupava cargo interino como Ministro da Saúde, é **efetivado**
- 16 de dezembro** - São Paulo confirma primeiro caso de **reinfecção** por coronavírus no estado; EUA ultrapassam **3.700 mortes** por dia





03. How well did the resources from the scientific action met your needs?

Needs related to school curriculum, for example:

The connection between the school curriculum and the scientific action made new teaching practices and learning possible. Adaptations are used to improve the development of learning and teaching processes. It is observed how well they complement each other.

Students engagement:

It was evident the participation, engagement and interest of students in the development of activities related to the history of epidemics and pandemics around the world. Has the timeline enabled a general view about how it started? What happened? And what were the measures for the epidemics and pandemics control? Causes and consequences. It was a meaningful experience to be able to follow the evolution of students in each class, interesting things came up to enrich their learning.

Interest and trust of students in science:

The students' performance showed how much knowledge they had about the history of epidemics and pandemics. They got involved with the idea and decided to act up as main characters, viruses. Thus, the activity provoked and motivated the study as something light and fun at the same time.

04. How easy or difficult was it for you to use the resources of the scientific action?

Any specific questions related to materials, procedures, curriculum interactions:

Teaching through knowledge area made it easy the action plans, the applicability of learning activities, the use of technological resources and the curriculum interaction based on integrated projects.





05. What were the benefits of the scientific actions for your students?

Describe the students' results in scientific actions related to:

KNOWLEDGE

It was developed in an interdisciplinary and transdisciplinary way, with an integrated school curriculum related to history and geography in the analysis of historical and scientific data. So, it was possible to understand epidemics and pandemics in a timeline. Not to mention the location in a geographic space. To be able to understand when, where and how historical facts happen in the world.

SKILLS

In the processes of teaching and learning the developed skills approach the capacity of students to contextualize past historical facts to be able to understand the present. In this case, the COVID-19 pandemic. And to foresee new alternatives which will provide solutions for other pandemics with responsible and ethical decision making, empathy and social and cultural relations.

ATTITUDE

Value historical registers for new approaches of knowledge.
Enable new ways of learning in times of pandemic, emphasizing social relations, ethics and respect for life.
Promote empathy to overcome chaos provided by epidemics and pandemics.

06. What were the challenges of using scientific actions with your students?

Main challenges faced by your students:
(Please, select all the ones which are applied):

- Difficult
- Long
- Boring
- They were not prepared.
- They were not feeling able to.
- They were not able to complete the scientific action.
- They didn't have enough time.
- Others (Please, specify): Pandemic was a factor which limited the process.





07. Which activity worked best?

What helped kids to reach their learning goals:

The Brazilian New High School made innovations in school curriculum and in the way of planning possible, allowing teacher to gather according to knowledge areas. Technologies as resources of access to information and theoretical registers of history of epidemics and pandemics.

08. Which activities did not work well?

Any thing that could be done in a different way or be avoided:

Social distance during pandemic caused many derangements in a school routine, many changes which made the contact with scientists impossible. The return to presential classes with 50% of students, reduced the time for the learning activities accomplishment.

