

Inclusive open schooling with engaging and future-oriented science



# **BEST PRACTICES**

ABOUT THE PARTNER			
	ORGANISATION	PUCPR APC	
	COUNTRY	BRAZIL	
	INTERVIEWER	Patrícia Lupion Torres	
	DATE	02/02/2022	
ABOUT THE TEACHER(S) INTERVIEWEES			
	SCHOOL	School of Basic Education Professor Adelina Régis.	
	TEACHERS Names (for best practices certificates)	Rudinei da Rosa Salles.	
	GENDER	Male	
	DISCIPLINE (Science, Physic, Chemistry, Biology,)	Chemistry.	
	How many lessons were used in open schooling?	YES	
	Title of the open schooling resource used	ORGANIC FUNCTIONS OF ALCOHOL IN PANDEMIC TIMES.	
	Type of science-actions (structured or open scenario)	open scenario	
	Curriculum topics	Health and prevention. Pandemic, COVID-19, organic functions of alcohol.	
ABOUT THE TEACHERS' STUDENTS			
	Grade	1st and 3rd grades of High School.	
	Average age	14 to 17 years	
	Total of students' participants	180 students	
	Total of students' who completed science actions	162 students	
SCIENTISTS INVOLVED:			
	Name		
	Field		

# **QUESTIONNAIRE**





# **01.** How did you (teachers) use open schooling resources? Could you please describe what did you do in your lessons?

**Activities of Students with scientists:** 

#### **Activities of Students with families:**

With the definition of the theme as action - COVID-19, learning activities were prepared in natural sciences and their technologies, with an emphasis on the functions of alcohol in preventing COVID-19. Theoretical studies on the habit of washing well hands with soap and use 70% alcohol. Remembering that hands are the part of the body most exposed to infection by microorganisms. Train multipliers students to disseminate the scientific knowledge studied at school to their families.

# **02.** How did your students used CONNECT resources? Do you have (or could describe) any samples of best science actions (for our website / reward)?

# Any example of what students prepared?

During the learning process, the activities carried out were:

- Analyze hygiene issues in the school, family and society context as fundamental measures in the prevention of COVID-19.
- Contextualize the scientific content with the current situation of COVID-19, in school environments and the safety measures to be taken to preserve everyone's health and life.
- Provide experiences on hand hygiene with soap and alcohol to prevent the spread of coronavirus.
- Develop in school spaces the skills of being protagonists in responsible decision-making in the face of COVID-19.
- Prepare students to be multipliers of the correct information about COVID-19 hygiene measures, covering family, school, leisure, social and cultural environments.

Slide? Poster? Video clip? (Add an image if it is possible)











#### 03. How well did science-action resources meet your needs?

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### Needs for example related to school curriculum:

The integration of the school curriculum with scientific action enabled new teaching and learning practices. And adaptations serve to improve the development of learning and teaching. It is observed that both complement each other in the teaching and learning processes.

#### Students' engagement:

In general, the students actively participated in the proposed activities on the study of alcohol in times of COVID-19. Always interacting with significant questions to expand knowledge through the scientific content of chemistry that guide the benefits and risk of using soap and alcohol in hygiene in the pandemic.

#### Students' interest and confidence in science:

It was surprising how the students began to act during and after the study was carried out. The domain of scientific argumentation among peers. Ability to make responsible decisions in the use of alcohol in hand hygiene in different spaces and places. It was gratifying to see the change in students' habits in terms of caring, knowing and doing.

#### 04. How easy or difficult were science-action resources to use?

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Any specific issues related to materials, procedures, interaction curriculum pressure:

Teaching by area of knowledge facilitated the planning of actions, the applicability of learning activities, the use of technological resources and curricular interaction based on integrated projects.

### 05. What were the benefits of science-actions for your students?

increased participation and engagement in class

at the end of the activity, the students showed mastery over the theme, which demonstrates significant learning

students were able to apply theoretical knowledge in real situations.

Describe the students' outcomes in their science-actions related to:

KNOWLEDGE

They were developed, in an interdisciplinary and transdisciplinary way, integrated in the area of natural sciences with an emphasis on the scientific content of chemistry, and on the analysis of alcohol data in the prevention of COVID-19. In this way, the students became interested in the study. They





	participated in carrying out the learning activities, expanding their knowledge repertoire.
SKILLS	The skills developed in the learning processes address the student's ability to play a leading role as multipliers of scientific knowledge in COVID-19 prevention measures, and to speak properly about how the destruction of the coronavirus happens with the use of alcohol.
ATTITUDE	Prevention of health and human life;
	To value the knowledge acquired in the school environment in the practice of the context in which they live.
	To argue the discussions of the use of alcohol in COVID-19, with scientific property.

06. What were the challenges of using science-actions for your students?		
Main challenges faced by students (Please, select all that apply):		
☐ Difficult		
□ Long		
☐ Boring		
$\square$ Not prepared		
$\square$ Not feeling capable to		
$\square$ Not able to complete the science-action		
□ Not enough time		
oxtimes Other (Please, specify): The pandemic was a limiting factor in the process.		

# 07. Which activities worked well with the curriculum?

All the activities. The fact that it was adaptable helped a lot.

What helped kids to meet the learning objectives:

The New High School that is being implemented in Brazil allowed innovations in the school curriculum and in the form of planning that allows teachers to gather by areas of knowledge.





Technologies as resources for accessing information and theoretical contributions. And the practices enable learning at school, then transmitted in the family, social and cultural context.

# 08. Which activities did not work well with the curriculum?

None.

Anything that could be done differently or avoided:

Social distancing in the pandemic caused a lot of disruption in the school routine, many changes that made contact with scientists impossible. The return of face-to-face classes with 50% of the students reduced the time for carrying out the learning activities. And direct contact with the scientist did not happen.

