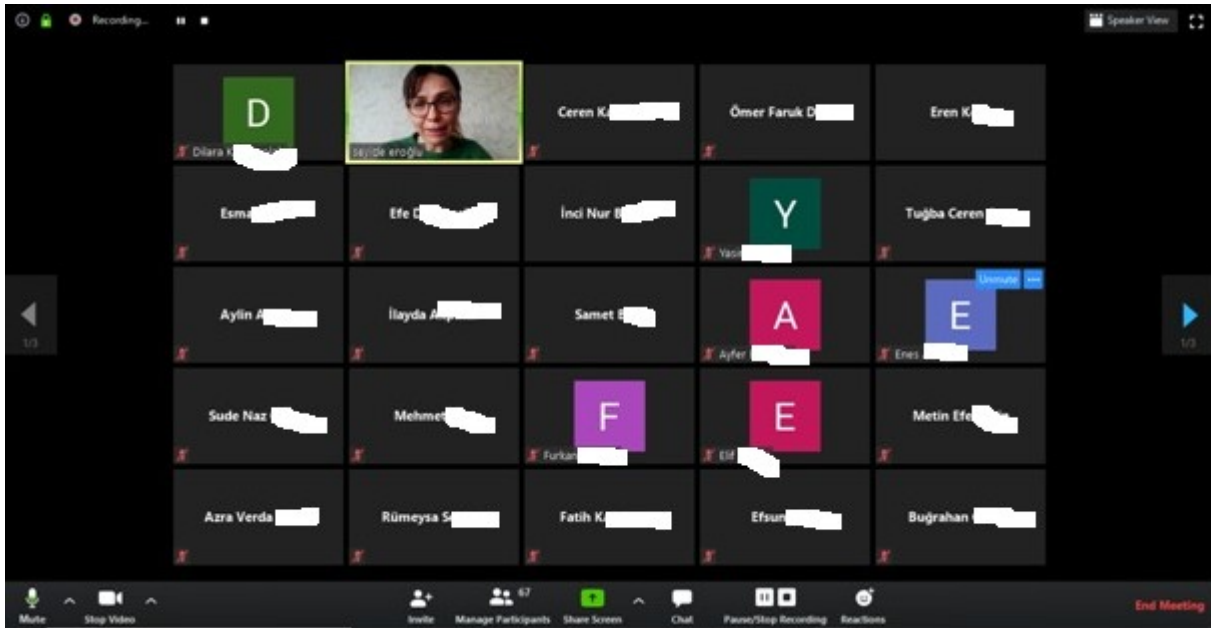


STAY AT HOME WITH STEM: THE HOMES TURN TO LABORATORY

We wanted to emphasize the importance of the concept of "Hygiene" as a school within the scope of 2020 STEM Discovery Campaign Activities. In particular, we wanted to raise awareness among students about the "COVID 19" epidemic, which has influenced the whole world. For this purpose, first of all, the importance of hygiene is explained to the students in an online meeting. During this study, since we are far from the school environment, all the studies were carried out online.



Hygienic conditions were examined with the students. The following open-ended questions were asked to direct students to research and inquiry.

1. What is hygiene?
2. Why is hygiene important?
3. What is a Hygienic Environment?
4. What are the personal hygiene rules?
5. What does disinfection mean?

Only questions about "Hygiene" were not asked here. Apart from these, questions were also highlighted that emphasized the science concepts. In this way, a current subject has been associated with science acquisitions. Some of these questions are listed below.

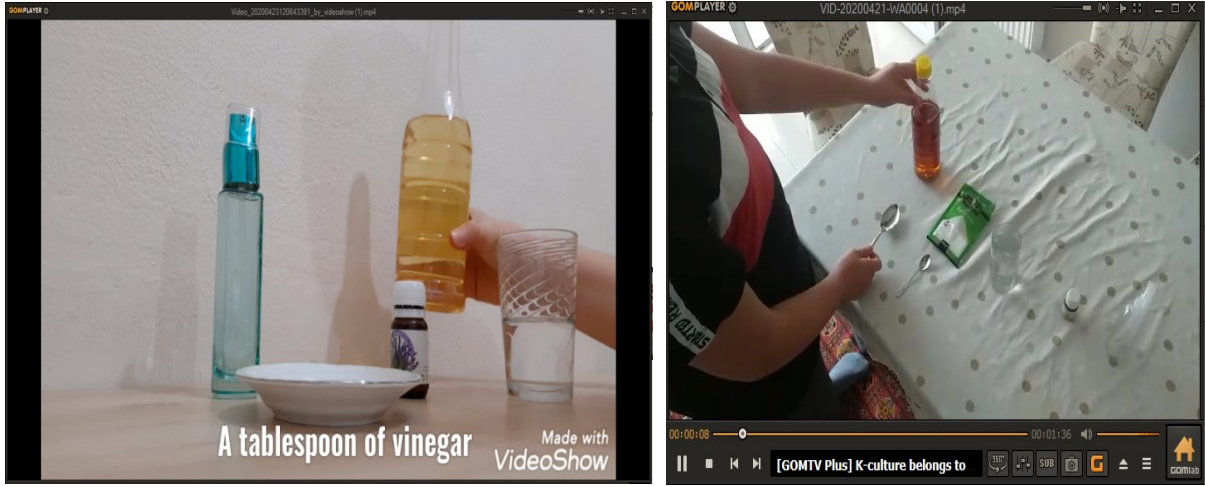
6. What does microorganism mean?
7. Which of the following does the bacteria need to multiply?

In daily life, what was done about disinfection was discussed. In particular, students were made to realize why disinfection is needed and where it is needed. Answers from students are listed. They were then asked to make a disinfectant to protect themselves and their families. Necessary information was provided about this. The students were asked to research which materials can be used as disinfectants. It was determined with the students which of these materials could be suitable for human health. The task of each component in the content of disinfectant is emphasized. In this process with students; In accordance with STEM education; general properties of substances used in disinfectant making, solution formation, properties of chemical compounds, microorganisms (science); quantity calculations used in creating solutions (mathematics); creating videos with web 2 tools (technology); Experiment design (engineering); disciplines are taken into consideration.


The students carried out their experiments at their homes. During the disinfectant making, the students saw the effect of different chemicals by experimenting. Apart from this, students have gained experience in creating solutions.




They shared their experiments by shooting videos using different web tools. Students in their experimental designs; They paid attention to certain criteria such as introducing the materials, performing the experiment in a certain order and sharing the results.




Video sharing was done on google classroom. In this way, students could see each other's work and comment. In this way, "peer assessment" was provided.

 **Eren Köseoğlu**
23 Nis

Eren KÖSEOĞLU 9/D 1099
HOMEMADE DISINFECTANT

 **DISINFECTANT.mp4**
Video

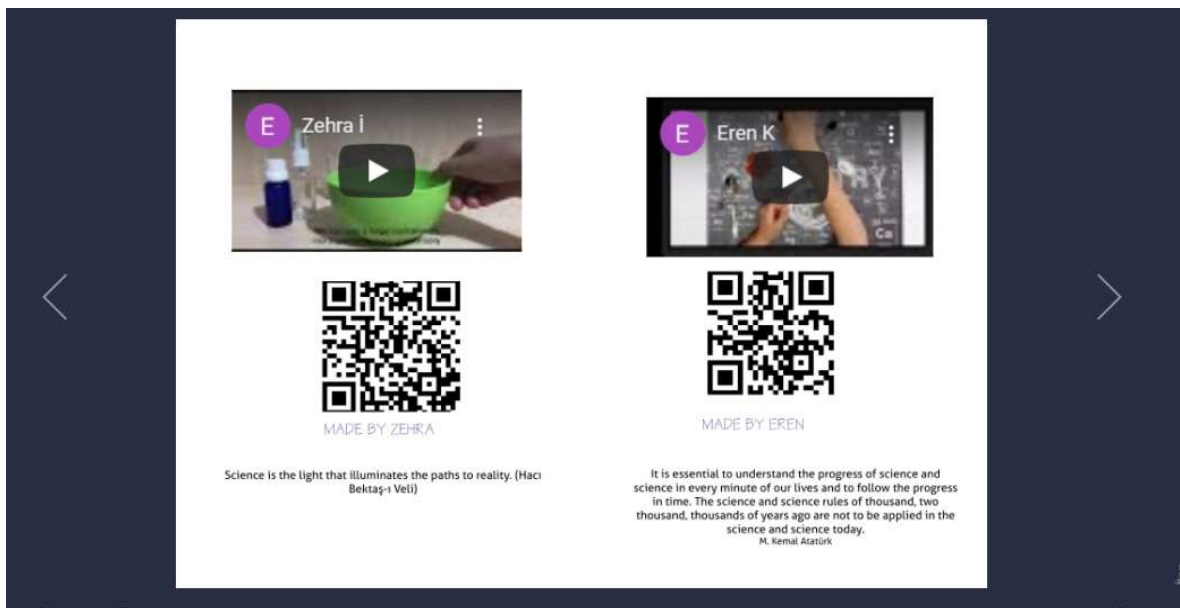
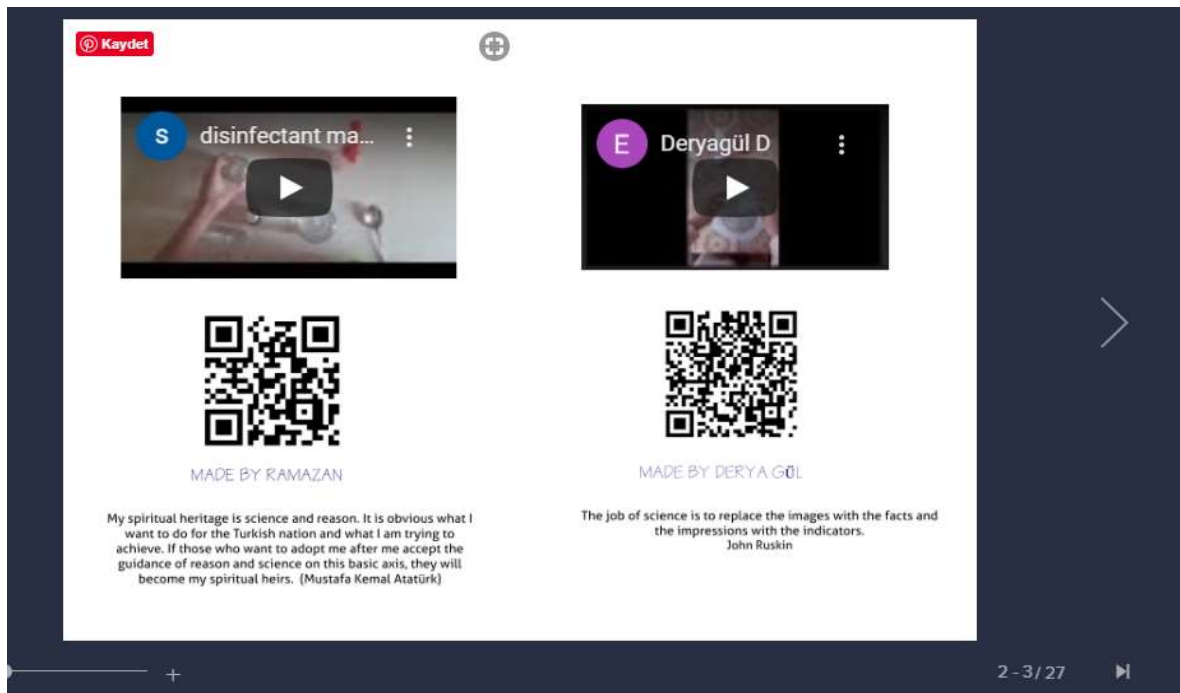
1 sınıf yorumu

 **AHmet Cabir** 25 Nis
Gayet başarılı olmuş bence .

Student videos have also been uploaded to you tube with the students. Qr codes have been created for this link link. In this way, in this study, students used many web tools together. In this way, the development of technology literacy is supported.



At the end of the study, these videos were turned into ebooks with the students. While creating the books, different web tools were used.



At the end of the regulations, an e-book was created with the students. (URL: <https://joom.ag/oHdC>)



In addition, a poster was designed with students to be used as a book cover.



Thanks to this study, it is aimed that the students achieve many gains. First of all, an awareness has been raised on students about "COVID 19" which is a current subject. This current subject was associated with the course outcomes, enabling students to transfer what they learned in the lessons to daily life. An interdisciplinary perspective was adopted throughout the study. In this way, students used different disciplines together. In addition, students; 21st century skills such as digital literacy, scientific creativity, research questioning, and team work were provided. In addition, the slogan "science is everywhere" is emphasized in this study. In this way, students were provided with a different activity, positive attitude towards science and motivation towards the lesson.

Finally, with this activity, students' orientation towards science careers was supported. Study activities are shared on the [school website](#).