



SUSTAINABLE DEVELOPMENT GOALS IN EDUCATION

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Become a researcher with cornstarch

optional classes chemistry

With harmless chemicals such as starch and water, students can become researchers themselves. With simple devices and chemicals, students can first work out the recipe for making a starch film themselves. Students learn how important a positive error culture is and how to learn from eventual mistakes.

The basic problem is to develop a film that is biodegradable. In order to create different properties of the film, students are given time to think about suitable additional materials that they process and later interpret their observations accordingly. Of course, students can also explore the decomposition of their film in nature.

In most cases, the observations can be explained with technical findings. For example, due to different polarities, the starch mass cannot be mixed with oil. However, glycerine or sugar gives you a smooth film, because these substances are integrated into the starch matrix via interactions and act as plasticisers. This allows students to try out different additives and explain the results through research or expertise.

In my project example, students even applied for a **patent** on their invention.



Honey in a starch matrix, as a disinfecting and cooling pad for burns.