

# Low-Cost Experiments in STEM Education



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## Biodegradable material from bacteria and yeast

The aim of the project is to grow the so-called vinegar mother (SCOBY) in such a way that it is suitable for processing.

Drying, forming shapes. Ultimately, this material could be used to produce, among others: biodegradable packaging, bags, etc. The assumption was that this material was to be bred in the "zero waste" philosophy. The end result, i.e. the packaging itself, is also 100% biodegradable. Raw materials: to grow the symbiotic bacterial-yeast structure, commonly called the mother of vinegar, you need semi-finished products, the same as those needed to produce home-made vinegar: sugar, water, and possibly fruit.



The photos show the packaging that we managed to create. The material can be sewn with thread. We created packaging for a bank card and a case for headphones.