



## Curiosity Guide #506

### Bioplastics

Accompanies Curious Crew, Season 5, Episode 6 (#506)

#### Moldable Bioplastics

Investigation #7

#### Description

This investigation is like a game of Twister!

#### Materials

- Plastic FORMcards <https://www.amazon.com/FORMcard-Strong-Pocket-Mouldable-Bio-Plastic/dp/B01MSUYKGI>
- Cup of hot water
- Spoon
- Clay mold, optional
- Clay tools, optional

#### Procedure

- 1) Fill a large cup with hot water.
- 2) Drop the FORMcard inside.
- 3) The plastic card will immediately start to soften.
- 4) After at least 30 seconds, lift the plastic out of the mug with a spoon and begin to reshape it.
- 5) As the plastic cools, it cures into its new shape.
- 6) To reuse the plastic, simply heat the plastic up in water again and reshape.
- 7) You can even try pressing this plastic into a mold or sculpting the plastic with tools.
- 8) What uses can you think of for this bioplastic?

## My Results

### Explanation

FORMcard is a bioplastic. When this bioplastic is heated and softened, it will stick to other plastics. This bioplastic can also be molded into a completely new shape that holds when cured. The product was invented in the UK and is made from starch polymers, so it is nontoxic. FORMcard was designed as a way to make inexpensive repairs. The best part is because this bioplastic is organic, it will easily decompose if thrown away. Because FORMcard can be heated up and reused, it should have a really long life. If you want to keep your new design, make sure to keep the plastic away from hot water!

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