

CBSE Regional Science Exhibition 2024-25

Students of Delhi Public School, Sector - 45- Ayushman Chaudhuri (XI-I) and Biswa Prakash Parida (XI-K), participated in the CBSE Regional Science Exhibition on 8th and 9th November under the sub-theme Waste Management. Their project was one of the 7 projects shortlisted for CBSE National Science Exhibition after winning the regional round.

140 million tonnes of flowers are discarded by temples every year. These go on to clog up drains, create blockages and get into the diet of animals. On the other hand, 12% of India's 355 million women have access to sanitary napkins. Around 12.3 billion sanitary napkins amounting to 113 tonnes of waste reaches India's landfills every year.

Their project, titled “**Pushp- Biodegradable Cost-Effective Sanitary Pads from Recycled Temple Flowers**” helps in solving all of the aforementioned problems.

The Pushp sanitary pad consists of 3 layers:

1. The top layer, made of bamboo fabric, is comfortable while being highly permeable.
2. The intermediate layer is the absorbent core of the sanitary pad which consists of 3 sub-layers:
 - a. The first layer of the core consists of Banana Fibers making it highly absorbent contributing to the effectiveness of the napkin.
 - b. The middle layer is made of a Starch Based Superabsorbent Polymer. The brilliant absorption qualities of the SAP paired with its biodegradability makes it an excellent addition to the pad.
 - c. The basal layer consists of Flower Powder. Its primary importance comes from its anti-bacterial and odor neutralizing properties. Compounds such as essential oils and flavonoids in flowers inhibit the growth of bacteria.
3. The bottom layer of the pad is made of a sheet of natural rubber. Natural Rubber is completely leak proof and extremely wear resistant. Each layer is separated by a sheet of non woven cotton fabric.

Every substance used in this sanitary pad is biodegradable. Moreover this pad is comparatively cheaper to other biodegradable pads in the market coming at about ₹5 per pad.