

Steps for making paper from raw materials

1. Gathering the raw materials - Plant fibres need to be sourced. These come from trees (like pine or oak) or other plants like cotton or bamboo. The fibres are the long, stringy parts inside the plant that we will turn into paper.

2. Making the pulp - The next step is to break up the plant fibres into tiny pieces (like woodchips). These are then boiled in water with chemicals to break them down and turn them into pulp. The pulp is made up of tiny pieces of fibre suspended in water, kind of like a soup of plant mush.

3. Cleaning and whitening - The pulp might be dirty, so it needs to be washed clean. If we want white paper, we use a special process called bleaching to make the pulp lighter and brighter.

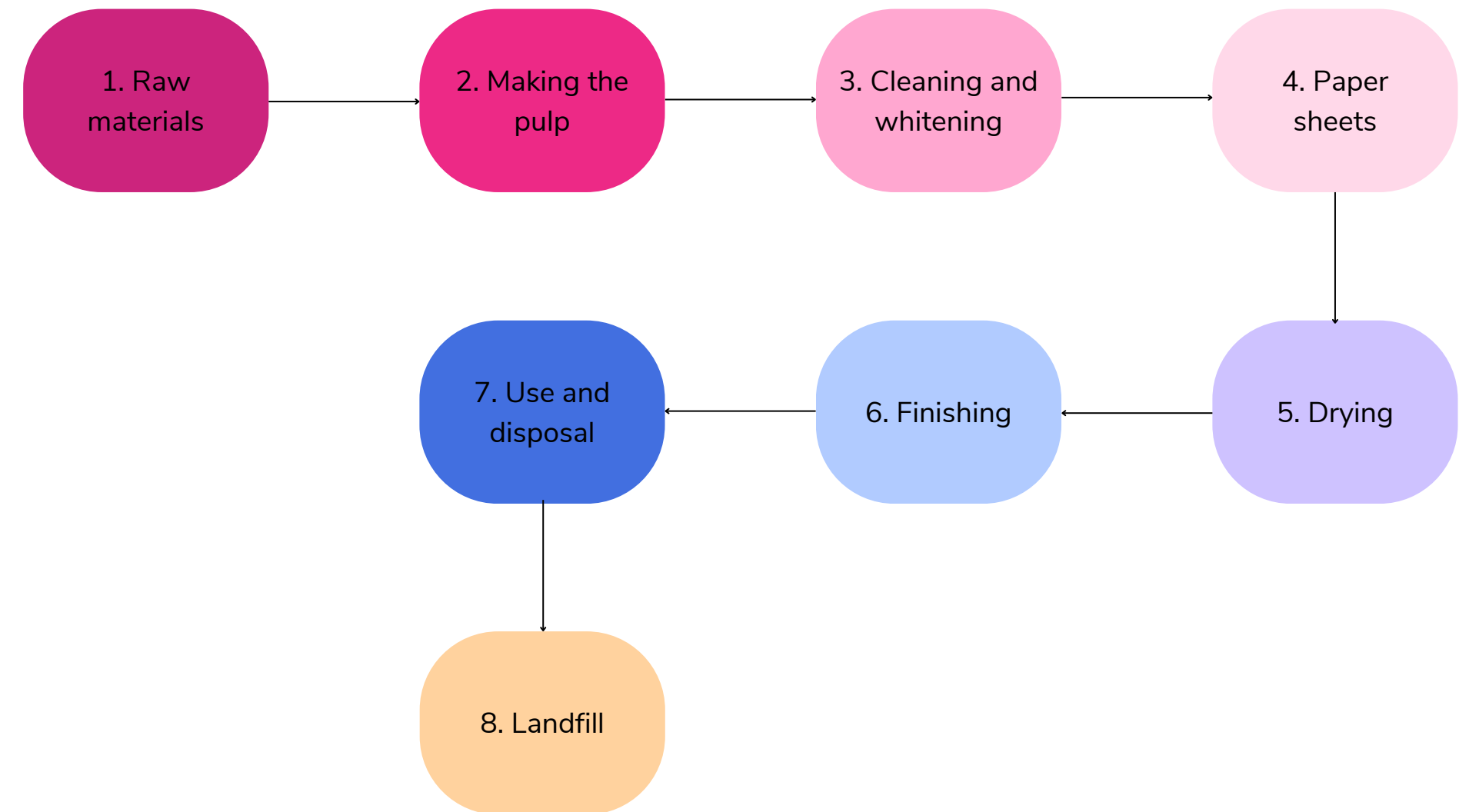
4. Making paper sheets - Once we have the clean, mushy pulp, it's time to turn it into sheets of paper by pouring the pulp onto a big screen or mesh that lets the water drain out. The fibres stick together, and the pulp starts to form into a flat sheet. Rollers are then used to press out the extra water and make the paper more solid.

5. Drying the paper - After the pulp is formed into a sheet, we need to dry it. We do this by passing it through heated rollers or hanging it to dry. This takes the moisture out of the paper and helps it become solid and ready to use.

6. Finishing - When the paper is dry, it might need a little extra work:

- Sometimes the paper is smoothed or pressed to make it nice and flat.
- The paper might be cut into smaller pieces, like the size of notebook paper or even big rolls of paper for things like wrapping paper.

7. Use and disposal - Paper is used by the consumer, and when no longer in use will either be recycled or sent to landfill.



Steps for making paper from recycled materials

1. Gathering the raw materials - Used paper is sourced from a recycling facility.

2. Making the pulp - Once the paper is collected, it needs to be shredded and soaked in water to create the pulp.

3. Cleaning and whitening - The pulp might have some glue or plastic in it so it needs to be washed clean. If we want white paper, we use a special process called bleaching to make the pulp lighter and brighter.

4. Making paper sheets - Once we have the clean, mushy pulp, it's time to turn it into sheets of paper by pouring the pulp onto a big screen or mesh that lets the water drain out. The fibres stick together, and the pulp starts to form into a flat sheet. Rollers are then used to press out the extra water and make the paper more solid.

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