

Printable for Table 1 – Fast fashion office

Write two headings in a chart increase or decrease. Cut these out and stick them under the heading correct category depending on whether the investment will increase or decrease as you move from fast fashion to eco fashion.

**Procuring organic cotton,
recycled fabrics, Tencel,
or bamboo**

Negotiations for fair wages

Safe working conditions

**Partnerships with fair-trade
suppliers**

R&D in Zero-waste pattern making

Waterless dyeing techniques

Biodegradable packaging

Supply chain audits

Sustainable certifications

Carbon offset programs

Take-back programs or product repair services

Office space in capital city

Blockchain technology

Opening sweatshops

Mass production

Billboards or TV ads

**Plastic packaging
materials**

**Corporate travel for
employees**

**R&D in Rayon and
polyester fabrics**

Printable for Table 2 – The Toxic Factory

Cut the boxes out and on one side stick the items on the left which are toxic chemicals used in fashion industry. Give the right side box slips to the students and ask them to replace or match the chemicals with their ecofriendly alternative.

<p style="text-align: center;"><u>Formaldehyde</u></p> <p>Use: Often used in fabric finishes to make clothes wrinkle-resistant and to prevent mildew.</p> <p>Harm: It's a known carcinogen and can cause skin irritation and respiratory issues.</p>	<p style="text-align: center;"><u>Plant-Based Finishes from soy or corn</u></p> <p>Offer wrinkle resistance and fabric protection</p>
<p style="text-align: center;"><u>Azo Dyes / Heavy Metals (e.g., Cadmium, Lead, Mercury) dyes</u></p> <p>Use: Synthetic dyes used for vibrant colors in textiles.</p> <p>Harm: Some azo dyes can release aromatic amines, which are carcinogenic. They can also cause allergic reactions and are harmful to aquatic life.</p>	<p style="text-align: center;"><u>Natural Dyes</u></p> <p>Derived from plants, insects, and minerals - Eg., Examples include indigo, turmeric, and madder root.</p>

Chlorine Bleach

Use: Used to whiten and disinfect fabrics.

Harm: Produces toxic by-products like dioxins, which are harmful to the environment and human health.

Hydrogen Peroxide

Safer bleaching agent, breaks down into water and oxygen, leaving no harmful residues.

Perfluorinated Compounds

Use: Used to make fabrics water-resistant and stain-resistant.

Harm: Persistent in the environment, PFCs can accumulate in living organisms and are linked to cancer, immune system damage, and hormonal disruption.

Biodegradable Waterproofing Agents

Eco-friendly waterproofing agents are often derived from natural sources like beeswax, soybean oil, or other plant-based materials, offering water resistance without harmful chemicals.

Phthalates

Use: Used as plasticizers in printing inks and synthetic fabrics.

Harm: Phthalates are endocrine disruptors, which can interfere with hormonal functions.

Water-Based Inks

Free from toxic chemicals and are safer for both the environment and human health. They're ideal for printing on textiles without harmful plasticizers.

Nonylphenol Ethoxylates (NPEs)

Use: Used in detergents and cleaning agents in textile processing.

Harm: NPEs break down into nonylphenol, a toxic substance that disrupts the hormonal system in humans and wildlife.

Enzymes

Enzymes like proteases, amylases, and lipases can be used in textile processing to achieve cleaning and finishing effects without harmful by-products.

Printable for Table 3 – The Sustainable Design studio

Cut the boxes out and on one side stick the items on the left which are eco fashion fabrics. Give the answer slips to the students and ask them to match the countries where these ecofriendly raw materials can be sourced from.

Organic Cotton

Description: Cotton grown without synthetic pesticides or fertilizers, promoting healthier ecosystems and safer farming practices.

Clue: This country is famous for its spices, Bollywood, and is the largest producer of organic cotton globally.

Hemp

Description: A highly durable, fast-growing plant that requires minimal water and no pesticides, making it an eco-friendly textile option.

Clue: Known as the world's second most populous country, it's also a leader in industrial hemp production.

Bamboo

Description: A renewable resource that grows quickly and naturally regenerates, used to create soft, breathable fabrics.

Clue: This country is the birthplace of pandas and a major producer of bamboo used in textiles.

Tencel (Lyocell)

Description: A sustainable fiber made from wood pulp, known for its softness, breathability, and biodegradability.

Clue: Home to the company Lenzing AG, this country is famous for its classical music and mountain landscapes.

Linen (from Flax)

Description: A natural fiber derived from the flax plant, requiring less water and pesticides, and offering durability and breathability.

Clue: Known for its chocolate and high-quality linen, this European country is a global leader in flax production.

Recycled Polyester

Description: Polyester made from recycled plastic bottles and other post-consumer plastics, reducing waste and energy consumption.

Clue: This country is the largest in East Asia, known for a Great Wall and also a major producer of recycled polyester.

Alpaca Wool

Description: A luxurious, hypoallergenic wool from alpacas, known for its warmth, softness, and minimal environmental impact.

Clue: This South American country, known for Machu Picchu, is the largest producer of alpaca wool.

Cork Fabric

Description: A renewable and biodegradable material harvested from cork oak bark, used in eco-friendly textiles and accessories.

Clue: This European country is known for its wine, and it produces the most cork in the world.

Piñatex (Pineapple Leather)

Description: A sustainable leather alternative made from the fibers of pineapple leaves, reducing agricultural waste.

Clue: An archipelago in Southeast Asia, this country is famous for its tropical fruits and is the primary producer of Piñatex.

Soy Fabric

Description: A soft, biodegradable fabric made from the byproducts of soybean processing, offering a plant-based alternative to conventional textiles.

Clue: This country's cuisine often features tofu and soy sauce, and it's a leading producer of soy-based textiles.

CHINA

CHINA

AUSTRIA

BELGIUM

CHINA

PERU

PORTUGAL

INDIA

INDONESIA

CHINA
