



LESSON FIVE ACTIVITY

DESIGN A NEW RECYCLING FACILITY

KEY IDEAS FOR FACILITY

Type of plastic material to recycle: Which types of plastic or plastic items will be collected for recycling (e.g., PET, HDPE or bottles, bread tags).

Recycling process: Students choose whether the recycling process will be mechanical (e.g. shredding, melting) or chemical (e.g. breaking down plastics into their basic components).

Product: The output of the recycling process, such as virgin polymers for manufacturing or new items like clothing, household goods, or building materials.

FACILITY LAYOUT DESIGN

Have students draw a simple layout of their facility including key areas:

Collection Area: Where people drop off recyclables.

Sorting Area: Where materials are separated (e.g., by type).

Storage Area: For sorted materials awaiting shipment.

Recycling Zone: Where the materials are processed or turned into new products.

EXTENSION: SUSTAINABILITY FEATURES

As an optional extension, encourage students to explore ways to enhance the sustainability of the recycling facility. They might consider incorporating solar panels, using eco-friendly building materials, or implementing strategies to minimise energy consumption.

CASUAL CLASS DISCUSSION

Host a casual class discussion, where students can showcase the recycling facilities they have designed. While students may remain seated, encourage them to share the details of their designs and explain the reasoning behind their choices.