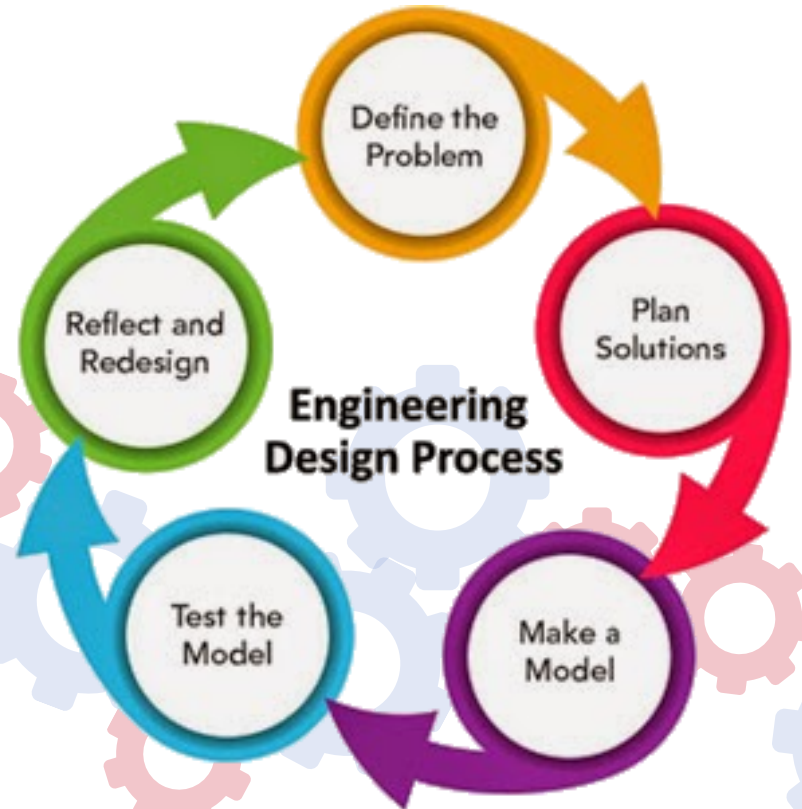


NAMES

Design Challenge Planning Packet



The Main Problem

People are throwing their Christmas trees into the city's landfill. When placed in the landfill the tree's take longer to biodegrade.

The trees also can cause fires.

The city has three ideas of what can be done with the trees. They have asked us to investigate these options.



Part 1: Define the Problem



The problem our group is trying to solve is

Our group is constrained by:

What we know from other designs:

Our group is most worried about:

Our group will be successful if:

Part 2: Plan Solutions



Use this space to create 1 design idea for your challenge.

Idea 1

Part 2: Plan Solutions



Use this space to create 1 design idea for your challenge.

Idea 2

Part 2: Plan Solutions



Use this space to create 1 design idea for your challenge.

Idea 3

Part 2: Plan Solutions



Choose two design ideas that you will take on to Part 3.

The two design ideas we are going to use are:



● Teacher Check ●

● ●

Part 3: Make a Model



Using the materials provided by your teacher, work together to build your designs.

Part 4: Test the Model



Now it's time to make a plan on how you will test your model.

The materials we need are: _____

These are the steps we will take to test our designs:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Part 4: Test the Model



We will collect data by (circle one):

observation measuring time counting other



• Teacher Check •



Use this space to write down your data. You may want to make a table.



Part 5: Reflect

The design that worked best was: _____

_____.

We know this was the best design because:

_____.

How does your design impact Earth's environment and resources?

_____.

After observing everyone's ideas, I think

would be the best way to reuse or recycle a Christmas tree. I think this because _____
_____.

Farmers and the city could use the information by

_____.

Use this page if you need more space.