

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Period: \_\_\_\_\_

# You Be the Material Scientist!

Science progresses by discovery of new principles of nature or new applications of things already known. From the wheel to the computer, people throughout history have been inventing and discovering equipment, tools, and ingredients to help our lives progress. We want to go further into space, deeper into the ocean. We want to drill through Earth's crust and have softer couches and faster cars.

How do all these new toys and upgrades come about? Some inventions come from scientists and specialists but people like you discover some too. A very important aspect of science is doing literature research, that means reading everything known about a topic before you design and develop your own experiments. Finding out who has already made important discoveries and learning how that can help your understanding of the topic you are interested in.

## Background Information

In this activity you need to choose an engineering problem and design a product that will use synthetic materials that come from natural resources. Examples of synthetic materials could include medicine, foods, building materials, plastics, and alternative fuels.

You should create a presentation, or poster, or a video to discuss your product. You will need to describe what materials are in your product, what their functions are, and how society can use these new materials.

Your presentation should include the following items:

- Introduction
- Main topic with supporting details
- Supporting information
- Summary
- References such as, author, publisher, Website, book, magazine, year, page number, and other such relevant information. **www.easybib.com**

## Project Steps:

### Step one:

Choose what type of product you will produce.

### Step two:

What materials will your product need?

Be sure to list and give details on the characteristics (**chemical and physical**) of the materials you choose and why they are important to the product. Your materials may currently be available - or they may be something that you design or invent.

Hint: It might be helpful to determine the types of characteristics your object will require and then search for substances and materials that have those characteristics and choose the most likely possibilities.

**Step three:**

Create and draw the design for your product. Your drawing should be to scale, meaning its proportions should be accurate.

**Step four:**

Determine how you are going to organize and present your information. Will you create a poster, a slide show, or a video? Make the order interesting for others to learn about the scenario you have chosen.

**Step five:**

Gather information and begin preparing the presentation. You might use the library, internet, texts, magazines, etc. to find information about your subject. All images must be original to your group, do not use copyrighted materials on your presentation.

**Step six:**

Make sure your presentation matches the rubric!

# Student Planning Page

Team Recorder: \_\_\_\_\_

Team Organizer: \_\_\_\_\_

Define Material Science:

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What kind of product would you like to produce?

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What synthetic materials will your product need?

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Website, books, resources used for research:

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Daily Goal Planner:

Today I will achieve:

	Monday	Tuesday	Wednesday	Thursday	Friday
Daily Goals					

	Monday	Tuesday	Wednesday	Thursday	Friday
Daily Goals					