

Online Model Engine Project
Due May 8th 2020 at 11:59pm

For this assignment you must create an original model of any engine you choose. The engine can be any engine that you choose. You will build this engine out of cardboard, foam, or whatever you see is fit for the project. The project may come apart to show internal parts or it can be strictly the outer shell of the engine. The physical size of the motor depends on the materials you use and your preference.

Your job:

-Find an engine you would like to model:

- Try to get as many pictures as you can of this engine since you will be graded on detail, creativity, attention to detail and accuracy.

- Design and build the engine to the best of your ability, try to keep the engine in scale with the actual motor.
- Engine must be creative, have all corresponding parts and have full color to be eligible for full credit.
- Engines should have the following parts:
 - o Engine block
 - o Cylinder heads
 - o Valve covers
 - o Spark plug
 - o Spark plug wires
 - o Pulleys
 - o Belt
 - o Carburetor/ fuel injection
 - o Air filter
- Students will turn in their assignment by taking multiple pictures of the engines and sending them electronically to jtarbet@amphi.com
- Examples can be seen on our class website <http://www.gilamonstergarage.com/model-engine-project.html>

On May 8th, 2020 you will send pictures of your engine to jtarbet@amphi.com by 11:59pm for credit.

Items you may need include:

- Computer
- Cardboard, foam, plastic
- Glue
- Paint/ Markers
- Scissors
- Tape

Items commonly used for the project include:

- Cardboard
- Foam
- Soda bottles
- Take out containers
- Wire
- Empty cans
- Clay
- Wax
- Plates
- Soda caps
- Electrical tape
- PVC
- Paper towel rolls
- Egg cartons
- Legos

Grading Rubric

• Student Name: _____

| CATEGORY | Excellent 20 points | Mediocre 16 points | Below Average 10 points | Poor 0 points |
|---------------------------|---|--|--|---|
| Engine pictures/ Plans | Turns in project on time | | | Turns in no plans or pictures |
| Color | Engine has color and reflects the modeled engine picture. | Has color that is misleading or not following the engine paint scheme, but overall satisfactory | Has some color that is misleading or does not follow the engine color scheme. Below average. | Has no color |
| Design | Parts are trimmed to an appropriate size They are arranged well, some in front and some behind. Care has been taken to balance the model | Parts are trimmed to an appropriate size. They are arranged with some items in front and others behind. The engine however does not appear to be well thought out. | Parts have been trimmed to an appropriate size and shape, but the arrangement of items is not very organized. Parts are out of place and misleading. It appears there was not a lot of planning of the item placement. | Parts are untrimmed OR of inappropriate size and/or shape. It appears little attention was given to designing the engine. |
| Quality of Construction | The model shows considerable attention to construction. The items are neatly trimmed. All items are carefully and securely attached to the backing. There are no stray marks, smudges or glue stains. | The engine shows attention to construction. The items are neatly trimmed. All items are carefully and securely attached to the backing. A few barely noticeable stray marks, smudges or glue stains are present. | The engine shows some attention to construction. Most items are not neatly trimmed. All items are securely attached to the backing. A few barely noticeable stray marks, smudges or glue stains are present. | The engine was put together sloppily. Items appear to be just "slapped on". Pieces may be loose or hanging over the edges. Smudges, stains, rips, uneven edges, and/or stray marks are evident. |
| Creativity | Several of the parts or objects used in the model reflect an exceptional degree of student creativity in their creation and/or display | One or two of the parts or objects used in the model reflect student creativity in their creation and/or display. | One or two parts or objects were made or customized by the student, but the ideas were typical rather than creative. | The student did not make or customize any of the items on the model. |

100 total points are available based on the rubric