

# 3D Train Grading Rubric

## Assignment:

Students are to use Inventor to create a virtual 3D prototype of a train. All parts will be created separate then assembled to create a working prototype.

## Requirements/Restrictions:

- All 10 parts created separately
- Fully assembled
- All parts and assembly saved in 1 folder



## Grading:

| <b>Expectations</b>   | <b>Points Possible</b> | <b>Points Earned</b> |
|---|------------------------|----------------------|
| <b>Train Body</b>   | 10                     |                      |
| <b>Stack</b>  | 10                     |                      |
| <b>Hitch Magnet</b>   | 5                      |                      |
| <b>Hitch Peg</b>  | 5                      |                      |
| <b>Wheel</b>  | 10                     |                      |
| <b>Axle Peg</b>   | 10                     |                      |
| <b>Linkage Arm</b>  | 5                      |                      |
| <b>Linkage Peg</b>  | 5                      |                      |
| <b>Cow Catcher</b>  | 10                     |                      |
| <b>Track</b>  | 10                     |                      |
| <b>Assembly:</b><br>The train is fully assembled with all parts constrained in at least two ways. The wheels should spin and train should sit on the track. | 20                     |                      |
| <b>Total:</b>   | <b>100</b>             |                      |