

Grading 4.5 Matter Tracing Tool: Matter & Energy Changes When Ethanol Burns

*This worksheet has “grading” in the title because at this point, students can be held accountable for correct answers. Level 4 (correct) responses to the questions are in **blue bold italics** below.*

Starting at the bottom, fill in the graphic organizer using the information from the reading.

Matter Out: *Carbon dioxide/CO₂ + Water/H₂O*

Energy Change: *Chemical energy in ethanol changes to light and heat (and motion) energy*

Matter Change:
Ethanol/C₂H₅OH + 3 O₂ → 2 CO₂ + 3 H₂O

Matter In: *Ethanol/C₂H₅OH + Oxygen/O₂*