INNOVATIONS IN SCIENCE AND TECHNOLOGY –
COURSE 4
Test Code: 9047
Version: 01

Specific Competencies and Skills Tested in this Assessment:

Information about the AC course standards can be found in the front of the AC course teacher guide.

CTE
1B CTE
1C CTE
1D CTE
Technological Literacy #10 CTE
Standards for Technological Literacy #11 CTE
Standards for Technological Literacy #13 CTE
Standards for Technological Literacy #16 CTE
Standards for Technological Literacy #17 CTE

Literacy
RST.9-10.1 Literacy
RST.9-10.3 Literacy
RST 9-10.3 Literacy
RST.11-12.1 Literacy
RST 11-12.2 Literacy
RST.11-12.2 Literacy
RST.11-12.4 Literacy
RST 11-12.4 Literacy
RST 11-12.10 Literacy
RST11-12.10 Literacy
RST.11-12.10 Literacy

Math
A-CED-2 Math
A-REI-6 Math
G-MG-3 Math
N-Q-1 Math
**Innovations in Science and Technology – Course 4 (continued)**

**Math**
N-Q-2 Math  
N-Q-3 Math  
S-IC-6 Math  
S-ID-3 Math  
S-ID-6 Math

**Science**
HS-ESS3-4 Science  
HS-ETS1-2 Science  
HS-ETS1-3 Science  
HS-ETS1-4 Science  
HS-LS2-3 Science  
HS-PS1-6 Science  
HS-PS3-3 Science
Innovations in Science and Technology – Course 4 (continued)

Written Assessment:

Administration Time: unlimited
Number of Questions: 64

Areas covered:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>37%</td>
<td>CTE</td>
</tr>
<tr>
<td>22%</td>
<td>Literacy</td>
</tr>
<tr>
<td>19%</td>
<td>Math</td>
</tr>
<tr>
<td>22%</td>
<td>Science</td>
</tr>
</tbody>
</table>

Sample Questions:

Land surveyors utilize GPS to:
A. Identify places to eat lunch
B. Program motion of an elevator
C. Establish boundaries and turning points
D. Predict the margin of profit on a solution

Which quadrant would the GPS coordinate S 54 E lie in?
A. Quadrant I: the NE quadrant
B. Quadrant IV: the E quadrant
C. Quadrant IV: the SE quadrant
D. Quadrant III: the SE quadrant

How does ethanol fermentation work?
A. Microscopic organisms perform aerobics to make ethanol
B. Bacteria and yeast convert sugar and other ingredients into oxygen and carbon dioxide
C. Microorganisms carry out anaerobic processes to produce ethanol and other byproducts
D. Ethanol is produced from corn or other biofuels from glycolic energy

The online testing system provides a built-in, five-function calculator. However, a scientific calculator is recommended for this assessment.