

**Half Course 1**

<b>Analysis of Games and Numbers</b>
<b>General Outcome:</b> <i>Develop critical thinking skills.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E1.A.1. Analyze puzzles and games that involve spatial reasoning, using problem-solving strategies. [C, CN, PS, R]

<b>Personal Finance</b>
<b>General Outcome:</b> <i>Develop an understanding of employment earnings.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E1.P.1. Demonstrate an understanding of calculations for gross pay and net pay earned through income sources including: <ul style="list-style-type: none"> <li>• wages</li> <li>• salary</li> <li>• contracts</li> <li>• commissions</li> <li>• piecework</li> </ul> [C, CN, R, T]
10E1.P.2. Solve problems that require the manipulation and application of formulas related to income. [C, CN, ME, PS, R]

<b>Measurement</b>
<b>General Outcome:</b> <i>Develop spatial sense through direct and indirect measurement.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E1.M.1. Demonstrate an understanding of the Système International (SI) by describing the relationships of the units for length, area, volume, capacity, and mass. [C, CN, ME, V]
10E1.M.2. Demonstrate an understanding of the imperial system by <ul style="list-style-type: none"> <li>• describing the relationships of the units for length, area, volume, capacity, and mass</li> <li>• comparing American and British imperial units for capacity</li> <li>• applying strategies to convert between imperial units and SI units.</li> </ul> [C, CN, ME, V]
10E1.M.3. Solve and verify problems that involve SI and imperial linear measurements, including decimal and fractional measurements. [CN, ME, PS, V]
10E1.M.4. Solve problems that require the manipulation and application of formulas related to converting measurement. [C, CN, ME, PS, R]

<b>2D Geometry</b>
<b>General Outcome:</b> <i>Develop an understanding of spatial relationships applied to area.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E1.G.1. Solve problems that involve SI and imperial area measurements of regular, composite, and irregular 2-D shapes, including decimal and fractional measurements. [ME, PS, R, V]
10E1.G.2. Solve problems that require the manipulation and application of formulas related to: <ul style="list-style-type: none"> <li>• perimeter</li> <li>• area</li> </ul> [C, CN, ME, PS, R]

**Half Course 2**

<b>Analysis of Games and Numbers</b>
<b>General Outcome:</b> <i>Develop critical thinking skills.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E2.A.1. Analyze puzzles and games that involve spatial reasoning, using problem-solving strategies. [C, CN, PS, R]

<b>Trigonometry</b>
<b>General Outcome:</b> <i>Develop spatial sense relating to triangles.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E2.TG.1. Solve problems involving right triangles using the Pythagorean theorem. [C, CN, PS, V]
10E2.TG.2. Demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent) by <ul style="list-style-type: none"> <li>• applying similarity to right triangles</li> <li>• generalizing patterns from similar right triangles</li> <li>• solving problems</li> </ul> [CN, PS, R, T, V]
10E2.TG.3. Solve problems that require the manipulation and application of formulas related to <ul style="list-style-type: none"> <li>• the Pythagorean theorem</li> <li>• primary trigonometric ratios</li> </ul> [C, CN, ME, PS, R]

<b>Consumer Decisions</b>
<b>General Outcome:</b> <i>Develop skills to make informed consumer decisions.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E2.C.1. Solve problems that involve unit pricing and currency exchange, using proportional reasoning. [CN, ME, PS, R]

<b>Transformations</b>
<b>General Outcome:</b> <i>Develop spatial sense.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E2.TF.1. Demonstrate an understanding of transformations on a 2-D shape, including <ul style="list-style-type: none"> <li>• translations</li> <li>• rotations</li> <li>• reflections</li> <li>• dilations</li> </ul> [C, CN, R, T, V]

<b>Angle Construction</b>
<b>General Outcome:</b> <i>Develop spatial sense.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
10E2.AC.1. Demonstrate an understanding of angles, including acute, right, obtuse, straight and reflex, by <ul style="list-style-type: none"> <li>• drawing</li> <li>• replicating and constructing</li> <li>• bisecting</li> <li>• solving problems</li> </ul> [C, ME, PS, T, V]
10E2.AC.2. Solve problems that involve parallel, perpendicular, and transversal lines, and pairs of angles formed between them. [C, CN, PS, V]

## Processes:

C – Communication

PS – Problem Solving

V – Visualization

CN – Connections

R – Reasoning

ME – Mental Mathematics and Estimation

T – Technology