Secondary Math 3

Concept: \_\_\_\_\_\_Using special triangles\_\_\_\_\_\_\_\_\_\_

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| **Learning Objective:**  I know…I can… | **Assessment Examples:** |
| I can recall the trigonometric ratios and use them to solve missing pieces of right triangles |  |
| I can use the special triangles to evaluate sine, cosine and tangent of special angles |  |

**Launch:** (How will you begin your lesson to help students make connections to material already learned and help students understand why they are learning the new concept?)

The students learned last year that sine, cosine and tangent can be used to solve for missing sides and angles of right triangles, but a calculator was always necessary. Using special triangles, trigonometric expressions can be evaluated without a calculator

**Explore:** (How will you allow students to construct their own understandings?)

Given a series special triangles of different sizes, allow students to find sin, cos of corresponding angles to discover value of sin cos of special angles

**Discuss:** (How will you share students’ learning and assure all students have a minimal level of understanding?)

* Because all the triangles are similar, the ratios are the same, thus, the sin, cos or tan of the special angles is the same
* Give the basic ratios of the special triangles
* Use ratios to evaluate trig expressions and to find missing sides or angles of special triangles

**Summarize:** (How will you help students understand what they learned, why they learned it, how does it connect to what you already know?)