# Essential Element, Linkage Levels, and Mini-Map

## Math: Grade 6

### M.EE.6.EE.3

<table>
<thead>
<tr>
<th>Grade-Level Standard</th>
<th>DLM Essential Element</th>
<th>Linkage Levels</th>
</tr>
</thead>
</table>
| **M.6.EE.3** Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$ | **M.EE.6.EE.3** Apply the properties of addition to identify equivalent numerical expressions | **Initial Precursor**  
- Compare sets  
- Combine sets  
**Distal Precursor**  
- Represent the unknown in an equation  
- Represent subtraction with equations  
- Represent addition with equations  
**Proximal Precursor**  
- Evaluate if equations are true or false  
- Apply associative property of addition  
- Apply commutative property of addition  
**Target**  
- Recognize equivalent algebraic expressions  
- Use properties of addition to create an equivalent algebraic expression  
**Successor**  
- Use properties of operations to generate equivalent expressions involving addition  
- Use properties of operations to generate equivalent expressions involving subtraction |

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<table>
<thead>
<tr>
<th>How is the Initial Precursor related to the Target?</th>
<th>How is the Distal Precursor related to the Target?</th>
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</thead>
<tbody>
<tr>
<td><strong>Initial Precursor:</strong> Understanding how to evaluate equations and using the properties of addition to create equivalent expressions requires a student to be able to recognize that two or more sets or groups of items exist. Work on this skill using a variety of sets. Help students recognize when items are grouped together into a set or separated out. The educator presents a set, labels it (e.g., two balls, one marker, three CDs), counts the items, labels it again, and encourages students to use numbers to label and count the separate sets. Then, combine the sets, give it a new label, and count the set.</td>
<td><strong>Distal Precursor:</strong> As students begin to understand labeling and counting small sets, they begin to use the number sequence and become more adept at tracking individual objects. Work on this skill using a variety of sets, labeling and counting the sets, and moving items in and out of the sets, labeling and counting the set again. Additionally, the educators will pair those sets with the symbolic representations for addition and subtraction (e.g., (3 + 2 = ?), (3 - 2 = ?)).</td>
</tr>
</tbody>
</table>

NOTE: Educators can work on the Distal Precursor level using the sets of numbers that students working at the Target level are adding and subtracting.

A diagram showing the relationship of nodes in the mini-map appears below.

*Key to map codes in upper right corner of node boxes:*

- IP: Initial Precursor
- SP: Supporting
- DP: Distal Precursor
- S: Successor
- PP: Proximal Precursor
- UN: Untested
- T: Target
M.EE.6.EE.3 Apply the properties of addition to identify equivalent numerical expressions