# ABSS Math Unit Planning Template

## Introduction

<table>
<thead>
<tr>
<th>Grade/Course:</th>
<th>9-12</th>
<th>Discrete Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Unit Pacing (if of days):</td>
<td>7 days</td>
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### Unit Number and Title:

<table>
<thead>
<tr>
<th>Unit 7 Apportionment</th>
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### Mathematical Practices

- P1 Make sense of problems and persevere in solving them.
- P2 Reason abstractly and quantitatively.
- P3 Construct viable arguments and critique the reasoning of others.
- P4 Model with mathematics.
- P5 Use appropriate tools strategically.
- P6 Attend to precision.
- P7 Look for and make use of structure.
- P8 Look for and express regularity in repeated reasoning.

### Conceptual Overview

### Essential Understandings

**SCS**

The learner will analyze data and apply probability concepts to solve problems.

**SCS.9-12.MA.2.03.a** Apportionment.

### Learning Targets

- Calculate the ideal ratio and standard quotas for a list of populations
- Apportion the ‘seats’ using Hamilton method
- Determine if the Alabama paradox has occurred when adding new seats
- Determine if the population paradox has occurred when populations change (HONORS)
- Determine if the new states paradox has occurred when a state is added (HONORS)
- Apportion the seats using Jefferson method
- Apportion the seats using Adams method
- Apportion the seats using Webster and Hill methods

### Essential Terminology

### Literacy Integration

<table>
<thead>
<tr>
<th>Literacy Standards</th>
<th>Level</th>
<th>Standard</th>
<th>Standard Name</th>
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### Technology Integration

<table>
<thead>
<tr>
<th>Technology Standards</th>
<th>Level</th>
<th>Standard</th>
<th>Standard Name</th>
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### Websites

### Assessment

- Formative
- Performance Tasks
- Summative

### Resources

### Learning Plan

<table>
<thead>
<tr>
<th>Instructional Sequence</th>
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<tbody>
<tr>
<td>1- Intro apportionment/Hamilton method</td>
</tr>
<tr>
<td>2- Alabama paradox, population and new states paradox</td>
</tr>
<tr>
<td>3- Jefferson method</td>
</tr>
<tr>
<td>4- Adams Method</td>
</tr>
<tr>
<td>5- Webster and Hill</td>
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<tr>
<td>6- Review</td>
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### Differentiation

- Remediation
- Enrichment

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http://thinkgate.net/ncalamance/fastsq1_v2_direct.asp?ID=7266|docPreview&xID=517 7/12/2012