Handout #1
Sample Interstate Sign
What is an Interstate Highway?

Interstate highways are special roads. There are no stop signs or traffic lights on them. Drivers enter and exit these roads at certain places called interchanges. These roads are made so people can travel quickly from one place to another without stop signs or traffic lights.

Many of our cities in Arizona are near an interstate road; some are even near two interstate roads. Interstate roads pass through other states. In Arizona people can travel to California, Nevada, Utah, or New Mexico using interstate highways. Arizona also has an interstate road that goes south to the country of Mexico.

The interstate sign is shaped like a shield and is red on the top and blue on the bottom. There are six interstate roads in Arizona. The “I” before the number means interstate. The number after the “I” indicates which direction the road travels. If it is an even number, it travels east-west. If it is an odd number, it travels north-south.

The six interstate roads in Arizona are: I-8, I-10, and I-40; I-15, I-17, and I-19. Let’s find them on a map!

Use the 2 Stars and a Car! Student Map. Locate the six interstate highways in Arizona.
Handout #3 – Interstate Road Symbols

Symbols on the Interstate Roads

This line is the symbol of an interstate highway.
   It is red and is a solid line.

1) 

The stars show the beginning and end points on a trip.

2) Start here                          Finish here
   (city 1)                     (city 2)

3) 50

50 means the interstate highway is 50 miles between the star on
the left and the star on the right. This number is usually in red.

4) 50                                   40
   (city 1)                          (city 2)                          (city 3)

There are 50 miles between city 1 and city 2. There are 40 miles
between city 2 and city 3. There are 90 miles between city 1 and city 3. Add
the mileage (50 + 40) to get the total or “cumulative” mileage (90).
Teacher Note: The interchanges between the stars will not be covered in this lesson. However, if students ask what the square boxes mean on an interstate road map, please refer to this page.)

Interchanges Between the Stars (Cities)

Sometimes travelers enter or exit the interstate between major cities.

Interstate highways have square boxes along the routes. These squares are also where travelers enter or leave the highway. They are called an interchange or exit.

The numbers below are the miles between the interchanges. Add them together to find the total or cumulative mileage between the 2 stars.

Example:

Start at the first star and travel 20 miles. You come to the exit (first box). You go 20 miles more and come to next exit (second box). You go 10 more miles and come to the last star, which is where you finish. This is your destination.

You have traveled $20 + 20 + 10 = 50$ miles. You had the opportunity to exit or get off the interstate at four places – at the 2 stars or at the 2 boxes between the stars.
**DRIVING THE ARIZONA INTERSTATE**

Use the 2 Stars and a Car! Student Map (map with the cities and mileage)

**CONSOLIDATE or add the miles together** to find the total mileage between the different cities in Arizona.

<table>
<thead>
<tr>
<th>City to City</th>
<th>Mileage</th>
</tr>
</thead>
</table>

**DRIVING TO 2 CITIES** (Add mileage together):

- Kingman to Flagstaff: __________
- Flagstaff to Phoenix: __________

- Flagstaff to Phoenix: +__________
- Phoenix to Tucson: +__________

- Kingman to Phoenix: __________
- Flagstaff to Tucson: __________

- Phoenix to Tucson: ____________
- Kingman to Flagstaff: __________

- Tucson to Nogales: +__________
- Flagstaff to Winslow: +__________

- Phoenix to Nogales: __________
- Kingman to Winslow: __________

- Winslow to Flagstaff: __________
- Flagstaff to Phoenix: +__________

- Winslow to Phoenix: __________
**Driving the Arizona Interstate**

Use the 2 Stars and a Car! Student Map (map with the cities and mileage)

**Consolidate** or add the miles together to find the total mileage between the different cities in Arizona.

```
<table>
<thead>
<tr>
<th>City to City</th>
<th>Mileage</th>
<th>City to City</th>
<th>Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingman to Flagstaff</td>
<td>143</td>
<td>Flagstaff to Phoenix</td>
<td>146</td>
</tr>
<tr>
<td>Flagstaff to Phoenix</td>
<td>+146</td>
<td>Phoenix to Tucson</td>
<td>+111</td>
</tr>
<tr>
<td><strong>Kingman to Phoenix</strong></td>
<td><strong>289</strong></td>
<td><strong>Flagstaff to Tucson</strong></td>
<td><strong>257</strong></td>
</tr>
<tr>
<td>Phoenix to Tucson</td>
<td>111</td>
<td>Kingman to Flagstaff</td>
<td>143</td>
</tr>
<tr>
<td>Tucson to Nogales</td>
<td>+63</td>
<td>Flagstaff to Winslow</td>
<td>+58</td>
</tr>
<tr>
<td><strong>Phoenix to Nogales</strong></td>
<td><strong>174</strong></td>
<td><strong>Kingman to Winslow</strong></td>
<td><strong>201</strong>*</td>
</tr>
<tr>
<td>Winslow to Flagstaff</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flagstaff to Phoenix</td>
<td>+146</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Winslow to Phoenix</strong></td>
<td><strong>204</strong>*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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(*Note: Last two are addition with regrouping.*)
(Optional Extension Activity)

Two Stars and a Car

Mileage Chart of 6 Cities on the Interstate Roads*

<table>
<thead>
<tr>
<th>AZ Cities</th>
<th>Flagstaff</th>
<th>Kingman</th>
<th>Nogales</th>
<th>Phoenix</th>
<th>Tucson</th>
<th>Winslow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagstaff</td>
<td>X</td>
<td>143</td>
<td>320</td>
<td>146</td>
<td>257</td>
<td>58</td>
</tr>
<tr>
<td>Kingman</td>
<td>143</td>
<td>X</td>
<td>360</td>
<td>289</td>
<td>297</td>
<td>201</td>
</tr>
<tr>
<td>Nogales</td>
<td>320</td>
<td>360</td>
<td>X</td>
<td>174</td>
<td>63</td>
<td>378</td>
</tr>
<tr>
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<td>146</td>
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<td>174</td>
<td>X</td>
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<td>257</td>
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<td>63</td>
<td>111</td>
<td>X</td>
<td>315</td>
</tr>
<tr>
<td>Winslow</td>
<td>58</td>
<td>201</td>
<td>378</td>
<td>204</td>
<td>315</td>
<td>X</td>
</tr>
</tbody>
</table>

*Note: these are estimates. Mileage may vary depending on the roads driven and/or maps used. These figures are based only on driving the interstate roads.
Circle the correct letter (a, b, or c).
Use your student map and worksheet to answer these questions.

1. The interstate highway is found on what kind of map?
   a. product map
   b. road map
   c. weather map

2. Phoenix is our capital city. One interstate that goes through our capital city is:
   a. I - 8
   b. I -10
   c. I-40

3. What interstate highway in Arizona goes to the country of Mexico?
   a. I - 19
   b. I - 40
   c. I - 8

4. How many interstate roads go into California from Arizona?
   a. 1
   b. 2
   c. 3

5. I-40 goes through the cities of Kingman, Flagstaff, and
   a. Phoenix
   b. Winslow
   c. Tucson
6. To find the consolidated mileage you
   a. add the miles together.
   b. subtract the miles.
   c. multiply the miles.

7. The mileage between Kingman and Winslow is 143 miles plus
   a. 58 miles
   b. 146 miles
   c. 63 miles

8. The mileage between Tucson and Nogales is
   a. 111 miles
   b. 63 miles
   c. 58 miles

9. The consolidated mileage between Phoenix and Nogales is
   a. 111.
   b. 111 + 63.
   c. 111 + 50.

10. You get the consolidated mileage between Kingman and Phoenix by
    a. Adding 143 + 146.
    b. Subtracting 143 – 146.
    c. Multiplying 143 x 2.
ANSWER KEY

(#1-5 geography, #6-10 math)

Circle the correct letter (a, b, or c).
Use your student map and worksheet to answer these questions.

1. The interstate highway is found on what kind of map?
   a. product map
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   a. Phoenix
   b. Winslow
   c. Tucson
ANSWER KEY

6. To find the consolidated mileage you
   a. **add the miles together.**
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7. The mileage between Kingman and Winslow is 143 miles plus
   a. **58 miles**
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   a. 111 miles
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9. The consolidated mileage between Phoenix and Nogales is
   a. 111.
   b. **111 + 63.**
   c. 111 + 50.

10. You get the consolidated mileage between Kingman and Phoenix by
    a. **Adding 143 + 146.**
    b. Subtracting 143 – 146.
    c. Multiplying 143 x 2.

Questions #1-5 are geographic related content; #6-10 are math related content.
Mastery for geography is 4/5 questions correct.
Mastery for math is 4/5 questions correct.
Two Stars and a Car! Student Checklist

Name_____________________________________

_______ I can identify an interstate sign on a road map.

_______ I have read or listened to the teacher read “What is an Interstate Highway?”

_______ I have completed my student map and put in the interstate numbers in the correct signs.

_______ I have read or listened to the teacher read “Interstate Road Symbols”.

_______ I identified the 6 interstate cities by placing red stick-on stars (or coloring in the stars) next to the 6 cities.

_______ I have circled the mileage between the 6 cities on the map.

_______ I have completed the Student Math Activity sheet – “Driving the Interstate” and added the mileages between the different cities.