

Understanding Maps –
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Materials:

- A Nevada State Road Map (free from the Nevada Commission on Tourism, www.travelnevada.com)
- Ruler, pencil
- 7.5' Topographic map of the New Empire Quadrangle

The Smith Family Vacation

One day in May, the Smith family of Henderson, Nevada received some interesting news: a distant relation has passed away and as next of kin, they were to receive all of his belongings. One of the items of interest was a topographic map of the New Empire Quadrangle, just south of Virginia City, Nevada. On this map, next to an "X" was the word "treasure." The family was quite excited by the possibility that their relative had buried something of value and was keen to find out what it could be. So, the Smith family, consisting of father Ted, mother Theresa, son Brian (age 8) and daughter Ramona (age 4) decided to take a trip to find this mysterious treasure.

The family pulled out their Nevada Road Map and started to plan their route. They planned to drive straight to their treasure spot and then go on to Carson City where they could spend the night. With their things packed and two maps in hand, the family set out at the crack of dawn the next morning.

The following questions can be answered using the Nevada Road Map:

What is the scale of this map?

They start their journey at the center of Henderson. What is the population range? _____

What phone number should they call to find out about road conditions? _____

After hearing about delays on US 95 due to construction, the Smith family checks the map and heads off. They start by driving to Las Vegas. According to the map, how far is it from Henderson to Las Vegas? _____ The family joins Interstate 15 heading north. They want to take US 93 north to avoid the construction delays; what junction number are they looking for?

They turn north on US 93, what is another name for this highway? _____

After they drive for about twenty miles, they notice a large mountain range to their west. What is the name of the mountain range? _____

What is the name and elevation of highest peak in the range? _____

What does the pink shading represent? _____

The family continues along US 93 and decides to stop for a break at Pahrnagat National Wildlife Refuge. What facilities are available there? _____

_____ Which county is it in? _____

After a quick stop, the family decides to keep going. They pass through the towns of Alamo and Ash Springs, and then find themselves at a junction. Name the roads that lead away from this junction: _____

As Ted looks at the map, he sees the "extraterrestrial highway" and thinks that it might be cool to follow it. Does it go in the right direction? _____ Is it a state or U.S. route? _____ What is the road number? _____

They take the "extraterrestrial highway" north all the way to the junction of US6. What is the one town they pass through on this road? _____.

It's getting pretty near lunchtime and the family decides to head to the nearest town where they can get something to eat. They head west on US6. They cross three summits before they come to a town. What are the names of these summits _____

_____ Which is the highest? _____

West of the junction of US 6 and Nevada State route 376, they arrive at their lunch stop. What is the town? _____ What county is it in? _____ Is it the county seat? _____ What is the population range? _____ What is the elevation? _____

The family has lunch in town and then decides to hit the road. They take US 95/US6 heading west.

About five minutes after leaving Tonopah, Ramona says in a shrill voice "I need to go potty!

Now!" Theresa turns around and asks incredulously, "why didn't you go back in Tonopah?"

Ramona replies, "I didn't have to go then." Is there a rest area nearby for Ramona? _____

Are there flush toilets? _____

Once back in the car and continuing on US 95, the family settles down to admire the scenery. Ted looks at the map and realizes that they had better start getting down to serious driving if they are going to make Carson City by nightfall.

The family arrives at the junction of US95 and US6. Which road do they want to take to get to Carson City the quickest? _____

Just **north** of this junction Brian can see a couple of shimmering valleys out the side window.

What features do you think he is seeing? _____

The family passes through the towns of Mina, Luning and Hawthorne. What is the name of the lake just north of Hawthorne? _____ . The family travels along this lake until they reach the town of Schurz. What kind of land management area is Schurz in?

At this point in their journey, the family realizes that they have two good options to get to Carson City: US 95 plus US 50, or ALT US 95, both of which end up in Silver Springs. Which route do they choose, and what towns and other points do they pass through? _____

At Silver Springs, the family heads west on US 50 towards the town of Dayton, where they need to switch to a different map in order to find their mysterious treasure. Do you think they need a larger scale or smaller scale map and why? _____

Use the 7.5' Topographic map and symbol sheet and the for the following questions

What is the scale of this map? _____ One inch equals how many feet? _____

The Smith family pulled out their topo map and located themselves at the extreme eastern margin of the map on US 50. What is their approximate elevation here? _____

The family needed to find the hill where the "treasure" is buried. According to their map, the hill is located in T16N R21E, section 20 and the "treasure" is located at the top of a hill in this section at an elevation of 5354 ft. Is this north or south of where they are? _____

The family drove to the junction of US 50 and SR 341. Approximately how far (in miles) is it to this junction? _____ What does the symbol at the junction of US 50 and SR 341 mean? _____ . Ted turned the car north on SR

341. The hills looked a bit dusty and he was a bit concerned because he didn't have 4-wheel drive.

Did he need to worry on this road? Why or why not? _____

It looks like the easiest access to the summit is to park on the road due east of the summit. What two identical features are on the east side of the road here? _____. The family got out of the car and began their ascent of the hill. What is the change in elevation between the road and the top of the hill? _____ When the family finally got to the top of the hill, they looked around for their treasure. They didn't see anything extraordinary and rechecked their map. They noticed that there are, in fact, two "X" marks on the map, although one has faded. It occurred to Theresa to check the map symbol sheet to see what those X's might mean. What do the X's stand for? _____

The family realized that maybe there was no treasure and that perhaps this was just an area where their relative had just staked a claim and did some exploring. They decided to do some exploring of their own. What are some of the features that they might have noticed around here?

The Smith family returned to their car and drove into Carson City. How far is it (approximately) from the "treasure hill" to Carson City? _____

As the Smith family relaxed by the swimming pool that evening at their hotel in Carson City, they reflected on their adventure. Although they didn't find a treasure, they did get a chance to see a lot of Nevada. Ted, Theresa, Brian, and Ramona all looked forward to their drive back to Henderson and decided to take a different route. Use the Nevada Road Map to describe a route back to Henderson that uses some different road than the ones they came up on.
