

# *Individually, make predictions:*

Where does the Sun rise in the morning, in Olympia?

Where does it set in the evening?

Does the Sun ever shine on the north side of your house?

Where was the Sun at noon today?

How high in the sky was the Sun at noon? (straight up at the top of the sky? halfway up at 45 degrees? Somewhere else)

Does the height of the noontime sun change with seasons?

(How) Does the height of the noontime sun depend on your latitude?

## *Sun at its highest point*

Latitude= $\theta$    location   max alt.= $\alpha$    relation

_____	Equator	_____	_____
_____	Tropics	_____	_____
_____	N pole	_____	_____
_____	Olympia	_____	_____

Fill in what you know, from solar motion wkshp.

Can you generalize a rule to find the maximum altitude  $\alpha$  at a given latitude  $\theta$ ?