

ONLS 7th Grade Life Science

Ecological Succession: A Google Earth Experience



A gradual change in a
community following
a disturbance

ecological succession

Introduction



Henry Cowles discovers plant succession.

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[The Indiana Dunes National Park Lakeshore Video](#)



Example Park: Primary Succession

The National Park where succession was discovered.

EXAMPLE Primary Succession



[Google Earth Link](#)

Insert a screenshot of the what you see on Google Earth here



01 Click the Google Earth Link to the left, when Google Earth is open, click “Explore Earth” in the upper right corner.

02 Copy/Paste Coordinates below

03 $41^{\circ} 39'13''N 87^{\circ} 03'08''W$

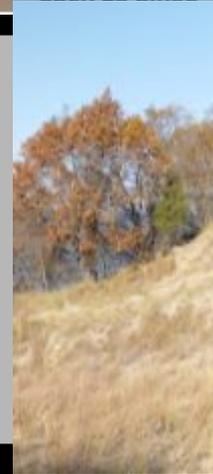
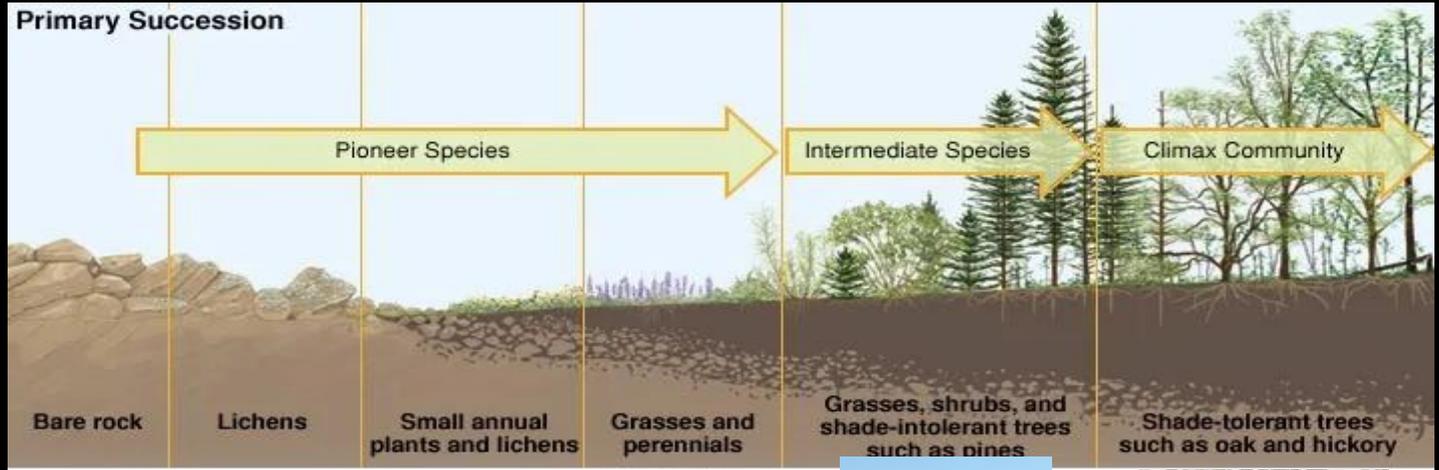
04 Indiana Dunes National Park

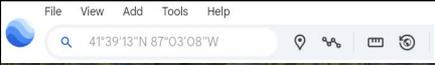
EXAMPLE

Use the coordinates (41°39'52.5"N 87°03'09"W) to locate Mt. Holden in the northern part of the park.

Use "street view" (person icon in the lower right of google earth). Click on the blue dots near Mt. Holden.

Use the blue dots to take screenshots (windows, shift, s) of the different stages of succession.



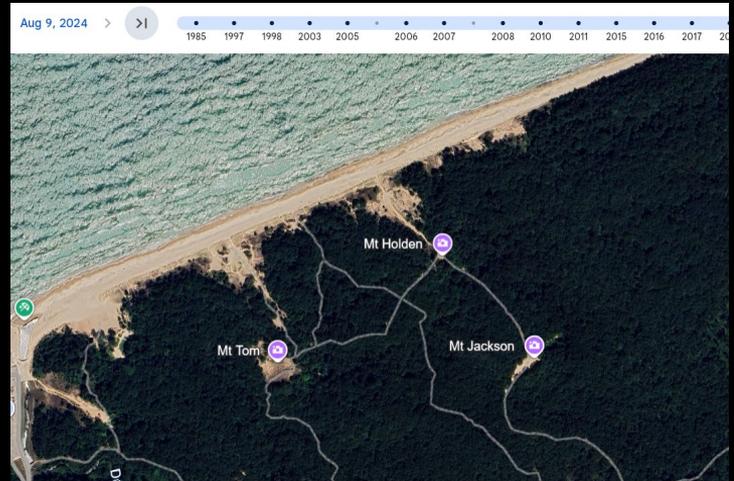
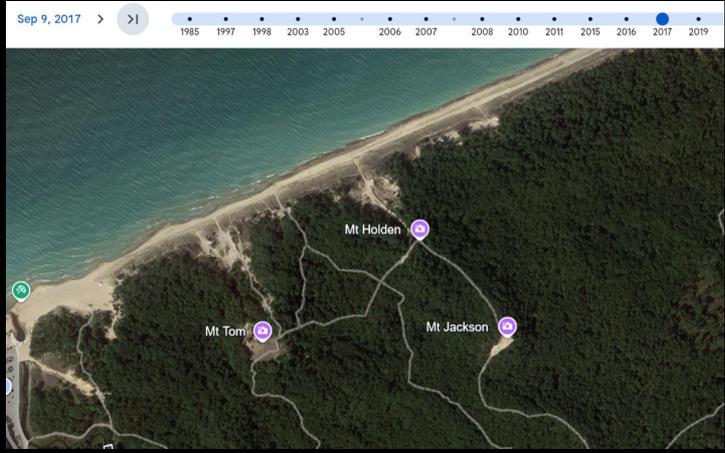
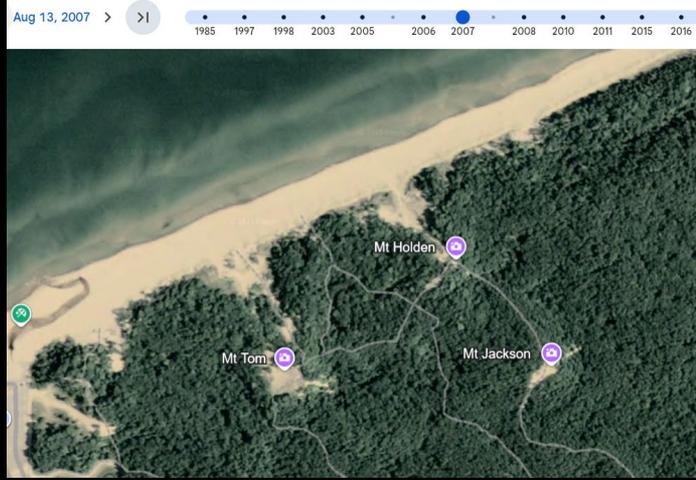
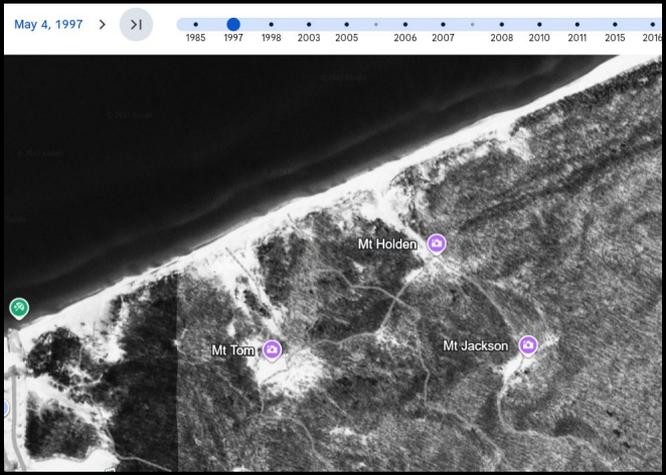


Example: Historical Imagery

Using Google Earth, select the Historical Imagery Icon

Look north to find Mt. Holden (North of the Park)

Use the blue dots (photo sphere) to visit the locations to take screenshots of the different stages of succession.





Primary Succession Video from Hawaii

Park 1: Primary Succession

Caused by volcanic eruptions.

Park 1: Primary Succession



[Google Earth Link](#)

Insert a screenshot of the what you see on Google Earth here

01 Click the Google Earth Link to the left, when Google Earth is open, click “Explore Earth” in the upper right corner.

02 Copy/Paste Coordinates below

03 19°29'48"N 155°27'58"W

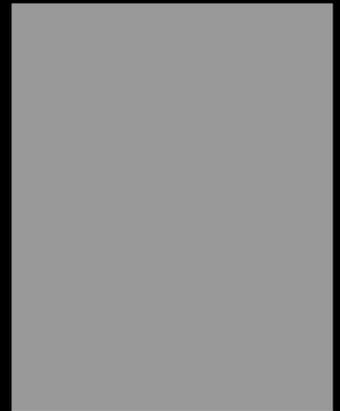
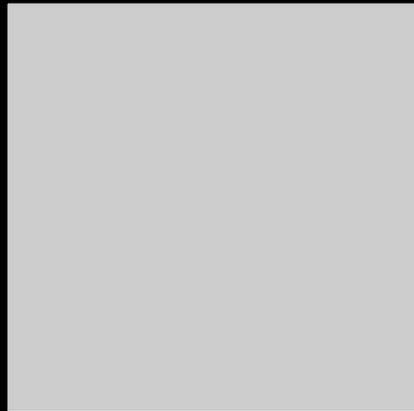
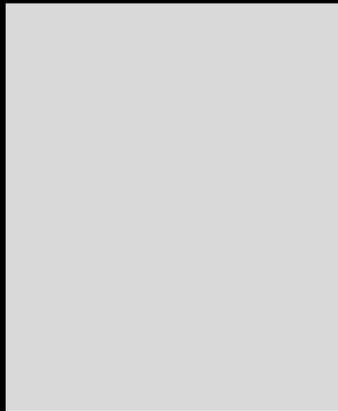
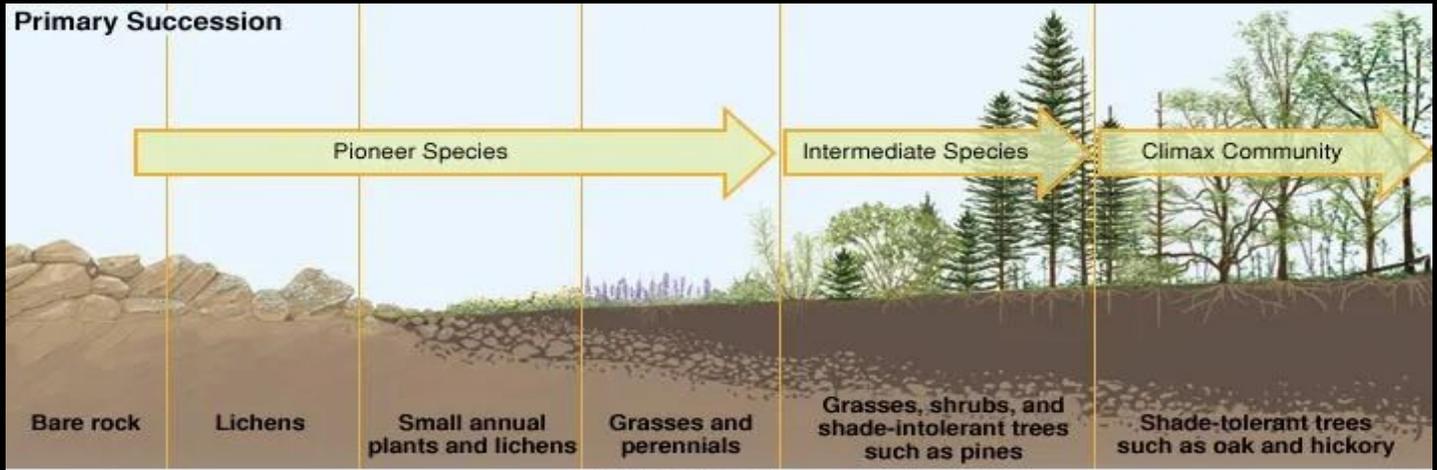
04 Add Park Name Here

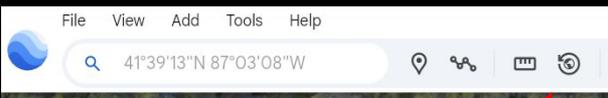
EXAMPLE

Use "street view" (person icon in the lower right of google earth).

Click on the blue dots around the park find a location that matches each stage of primary succession.

Take screenshots (windows, shift, s) of the different stages of succession and add them to the right.

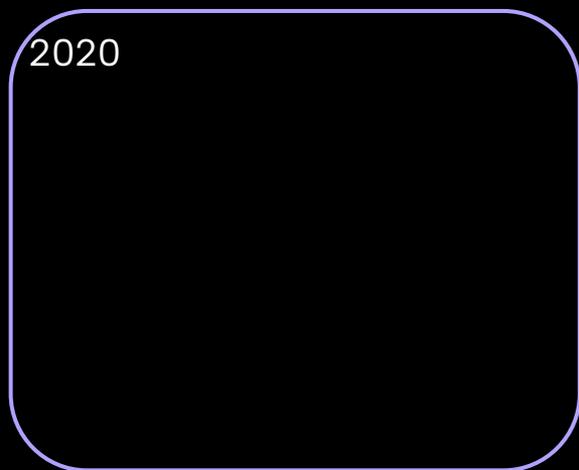
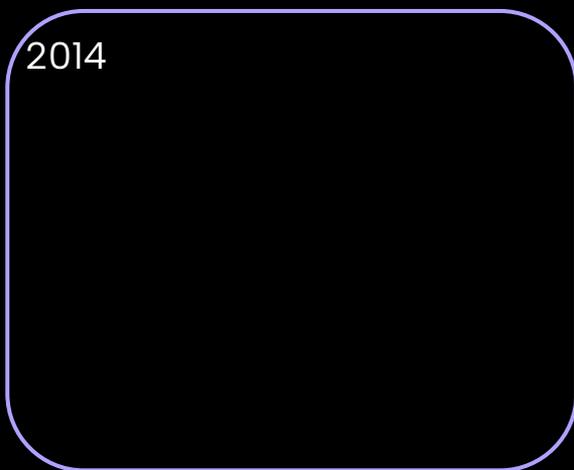
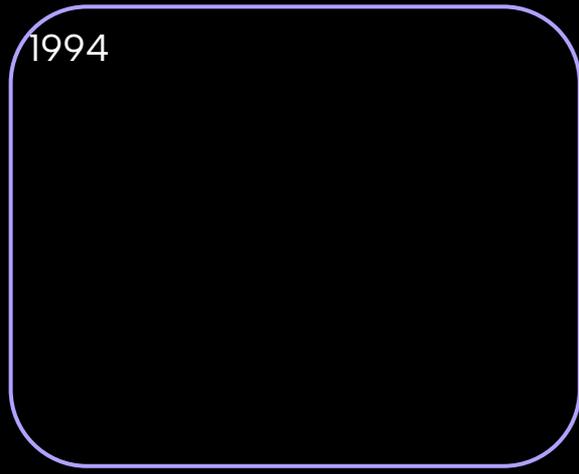




Historical Imagery of Park

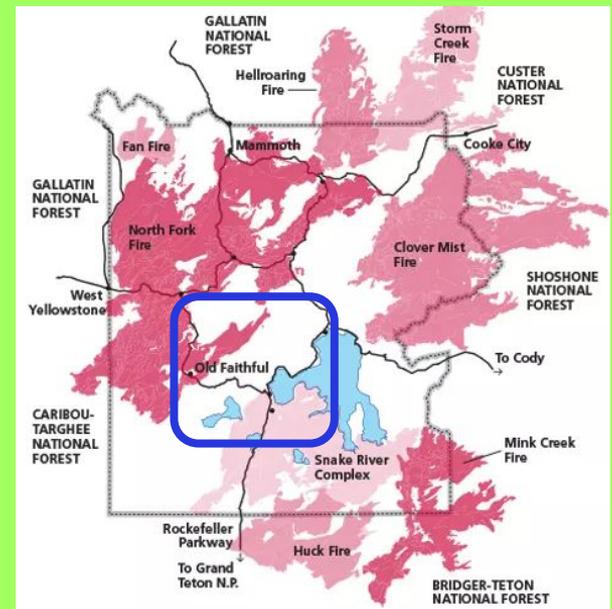
Zoom out until you see the southern half of Hawaii.

Select the Historical Imagery Icon (see above) and take a screenshot of the location for the years noted.





[Rebirth After Wildfire \(1988-2008\) Video](#)



Park 2: Secondary Succession

Caused by a wildfire in 1988

Park 2: Primary Succession



[Google Earth Link](#)

Insert a screenshot of the what you see on Google Earth here

01 Click the Google Earth Link to the left, when Google Earth is open, click “Explore Earth” in the upper right corner.

02 Copy/Paste Coordinates below

03 44°35'54"N 110°33'40"W

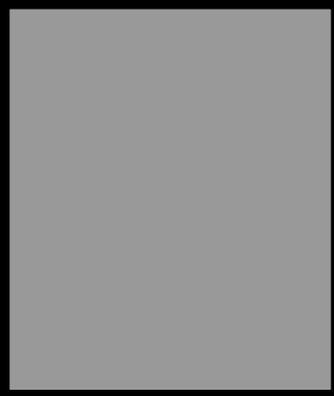
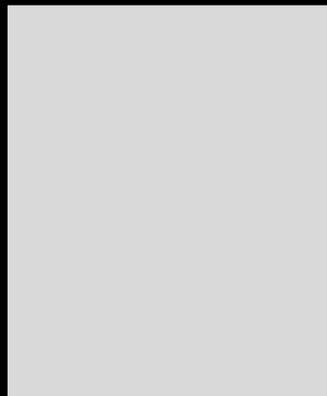
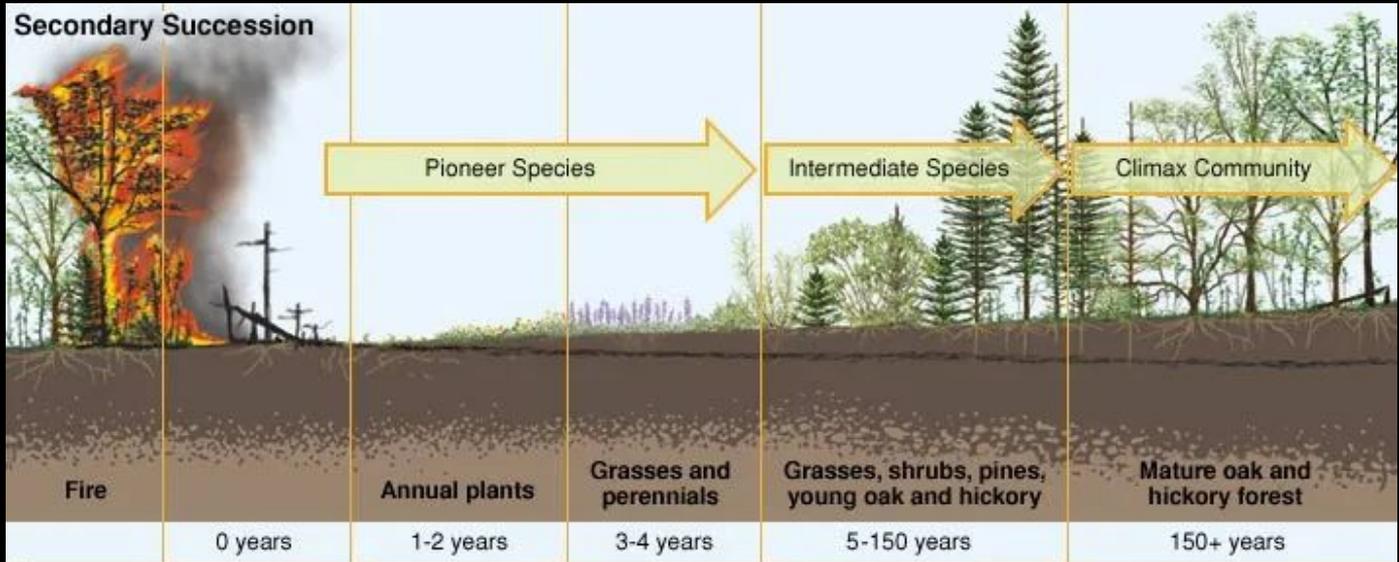
04 Add Park Name Here

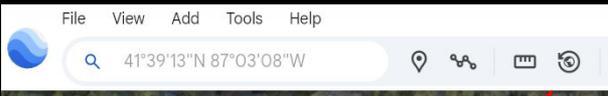
Park 2

Use "street view" (person icon in the lower right of google earth).

Click on the blue dots around the park find a location that matches each stage of secondary succession.

Take screenshots (windows, shift, s) of the different stages of succession and add them to the right.





Historical Imagery of Park

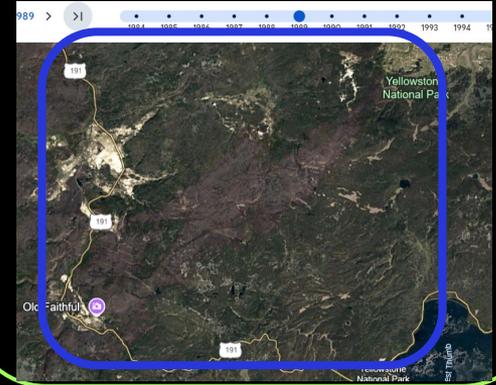
Use the following coordinates for this park ($44^{\circ}31'54''\text{N}$ $110^{\circ}40'50''\text{W}$) and zoom out until you can see Yellowstone and Old Faithful.

Select the Historical Imagery Icon (see above) and take a screenshot of the location for the years noted.

1988 Fire Map



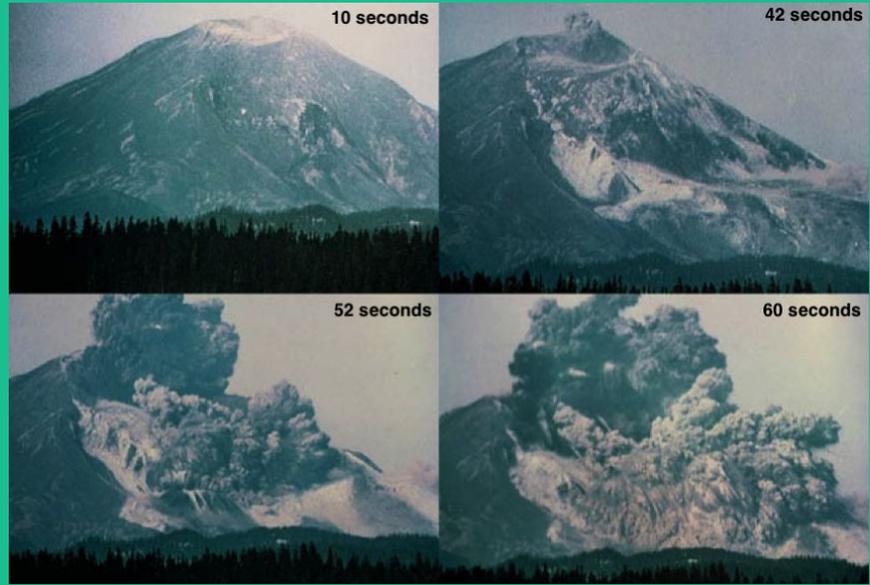
1989



1999

2009

2019



40 Year Later Video Link

Park 3: Secondary Succession

Caused by an earthquake, landslide, cataclysmic eruption and pyroclastic flow.

Park 3:

Secondary Succession



[Google Earth Link](#)

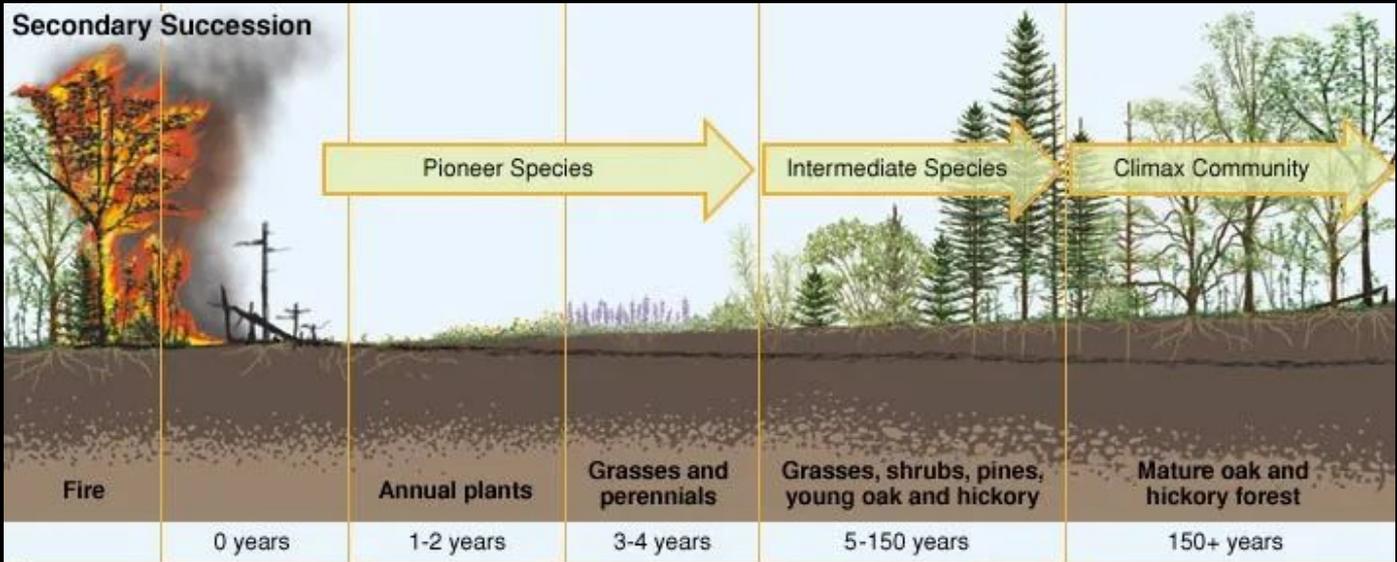
Insert a screenshot of the what you see on Google Earth here

01 Click the Google Earth Link to the left, when Google Earth is open, click “Explore Earth” in the upper right corner.

02 Copy/Paste Coordinates below

03 46°11'29"N 122°11'44"W

04 Add Park Name Here

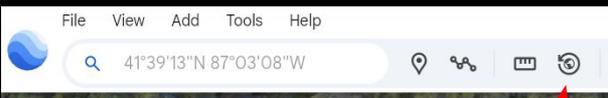


Park 3

Use "street view" (person icon in the lower right of google earth).

Click on the blue dots around the park find a location that matches each stage of secondary succession. The best dots are near the Johnston Observatory and Hummocks Trail.

Take screenshots (windows, shift, s) of the different stages of succession and add them to the right.



Historical Imagery of Park

Use the following coordinates for this park (46°14'26"N 122°11'48"W) zoom out until you see Johnston Ridge and Mt. St. Helens.

Select the Historical Imagery Icon (see above) and take a screenshot of the location for the years noted.

1984



1994

2004

2014

2024