

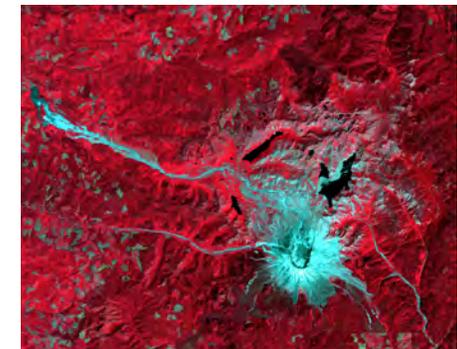
Use these cubes to discover different landscapes seen by the Landsat satellite!

Various Landsat satellites have been observing changes on the Earth since 1972!

Put them in order from the oldest to the newest and look for:

- Desert and the urban sprawl of Las Vegas
- Yellowstone National Park and the recovery from a devastating forest fire
- The creation of artificial islands in Dubai
- Deforestation in the Rondondia Rainforest
- How sediment is affecting the Atchafalaya Bay at the mouth of the Mississippi River
- What Mt. St. Helens, a famous volcano, looked like before and after the eruption.

Remember, a lot of the colors are not what you expect to see!



Here are some hints:

Las Vegas desert

- Las Vegas is a city in the desert
- City growth can be seen with the sprawl of irrigation vegetation – lawns, golf courses, etc.
- The white area in upper left is salt. If you look closely at it you can see some patterns that look like flows of water showing evidence that water used to be there.

Yellowstone Forest Fire

- Using data measured in the short-wave infrared, areas impacted by the fire the no longer have trees appear reddish in color.
- As the forest recovers, the area becomes green again.
- The park border is a straight line that reveals the logging that is happening outside the park boundary.

Dubai Islands

- The sequence shows the urban sprawl along the coast and the creation of new land in the water – the Palm Islands.
- Dubai, part of the United Arab Emirates, undertook a massive engineering project to create hundreds of artificial islands along its Persian Gulf coastline.
- Built from sand dredged from the sea floor and protected from erosion by rock breakwaters, the islands were shaped into recognizable forms, including two large palm trees.

Rondonia Rainforest

- You can see how the forest is being cleared on each side of the road network as more and more forest is access.
- You can use a finger or hand next to the scale bar to show how much area has been clear cut so the people get a scope of the size.

Atchafalaya Bay

- Water appears dark blue
- Vegetation is green
- Bare ground is pink
- The deltas in the Atchafalaya Bay (near the mouth of the Mississippi River) are growing.
- In a swampy area south of Morgan City, new land is forming at the mouths of the Wax Lake Outlet and the Atchafalaya River.
- Both deltas are being built by sediment carried by the Atchafalaya River.

Mt St Helens

- The red colors show healthy vegetation
- Brown and gray areas are rock, ash, and cooled lava.
- The black in the images are water bodies and that the vegetation in those areas seems to be coming back quicker than others over 30 years.
- Some of the vegetation (red area) was wiped out after the eruption (2nd image) and is coming back in the last.