

Lesson ideas for geography teachers to share: the Americas

Answers

1. How much of the Earth's surface do the Americas cover?
They cover more than a one quarter of the world's land surface.
2. What are Redwoods nicknamed?
The tallest Redwoods are called 'Titans'. The blue whales of the plant world. 95% of the old growth forest has been lost since the early settlers arrived.
3. How high can Redwoods grow?
250 feet (76 metres) in the air.
4. What is the Ark Angels Project?
The Ark Angels Archive Project aims to save the Redwoods and to tackle climate change with 'microbial propagation' copying their DNA from seedlings.
5. Why are Redwoods seen by some as the solution to climate change?
Each Redwood absorbs 400-500 tonnes of 'dry weight' carbon, growing 10 feet (3 metres) a year. The older they get the faster they grow!
6. What happened in Paradise?
Paradise suffered one of the worst wildfires in California in 2018. 13,000 homes were destroyed and 80 lives lost.
7. Are Californian wildfires getting better or worse?
Worse. More deadly, more unpredictable.
8. Why is the 140 acre 'controlled fire' undertaken? How fast can wildfires spread?
Some seedlings only germinate after a forest fire. Controlled fires are undertaken because dry dead undergrowth must be burnt away to prevent larger, more ferocious wildfires. Wildfire can spread very quickly at up to 30 miles per hour, these sudden fires are called Fire whirls, nicknamed 'fire nadoes'.
9. What is so important about the Central Valley?
Half of all the fruit and vegetables eaten in the US are grown here. It has the best soil in America and is one of the most productive agricultural regions in the world. If California was it's own country, it would be the fifth biggest economy in the world.
10. How many people don't have access to clean drinking water?
Over 1 million people don't have access to clean drinking water. Agriculture takes up to 80% of California's water.
11. How much water do almonds and beef use respectively?
1 almond can take 1 gallon (3.7 litres) of water to grow. 1-pound (0.4 kilograms) of beef can take 2,500 gallons (9463 litres) of water.
12. How has water use changed Californian topography?
Over abstraction is starting to create land collapse in parts of California. In some places the land has dropped by 60 feet (18 metres), which many attribute to the population tripling over the last 60 years. This is one of the largest alterations to the surface of planet Earth.



13. What is the average house price in Beverley Hills?
\$10 million.
14. How many rough sleepers are there in LA?
There are 45,000 rough sleepers, more than the top 27 cities combined for homelessness.
15. What is the problem with infrastructure in America?
There are 47,000 'structurally deficient' bridges in the US, as well as under invested roads and neglected dams. Americans are not willingly to spend on public projects and as a result much of the infrastructure is old, dating back from the 1930s. In the 1930s the 'New Deal' from President Roosevelt financed many of America's largescale projects to recover from the Great Depression.
16. What do the California Conservation Core do?
The organisation again originates from President Roosevelt's New Deal, it is the oldest and largest conservation group in America. It is a paid volunteer service for 18-25 year olds. They work to preserve the Californian landscape by removing dry undergrowth which prevents wildfires. They also fight back against the bark beetle – who kill trees as they bore into them, laying their eggs and spreading fungus.
17. What is The Green New Deal?
It is a radical new American deal to tackle the current climate emergency, proposed by Alexandria Ocasio-Cortez. It is designed to wean the US off fossil fuels and curb global warming greenhouse gas emissions. It will also address poverty and homelessness.
18. What's the story with Bombay Beach?
A canal accidentally burst its bank and created California's largest inland lake. Fertilisers have drained off from agriculture and, as the lake dries, toxic dust storms blow across Bombay Beach.