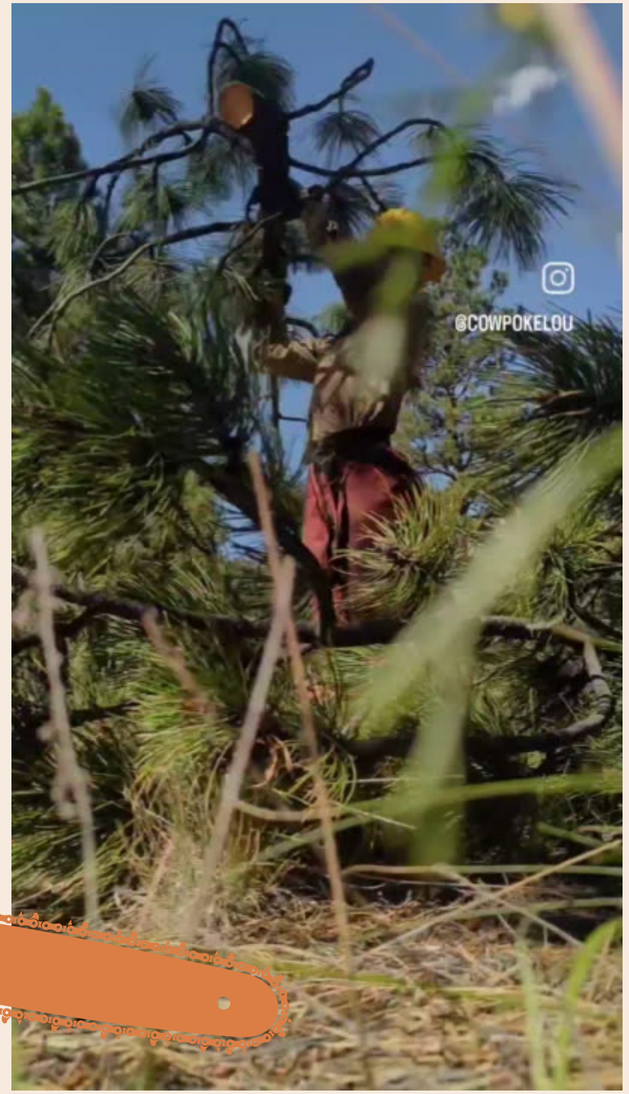
WILDFIRE

and the Earth's Spheres



who even are you and why are you at my school right now?!





FROM FORESTS TO GRASSLANDS, MANY ECOSYSTEMS HAVE WILDFIRES







What kind of ecosystem do you live in? How frequently does wildfire occur? The frequency and intensity of fires in an ecosystem is called a fire regime.

WILDFIRES CAN BE CAUSED BY



- Lightning
- Lava Flows

NATURE



- Campfires
- Fireworks
- Cars and trucks
- Smoking

HUMANS

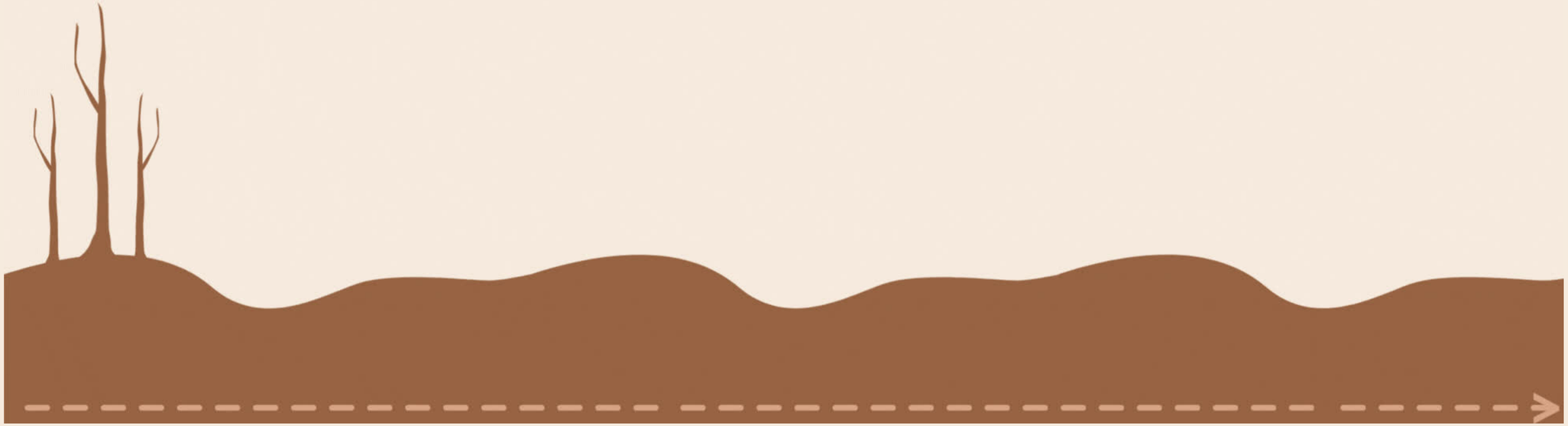
Which source do you think causes the most wildfires every year?



How fire effects...

HUMANS

- Human homes, businesses, and farms can be threatened by wildfire
- Fire can also be used by humans to improve the habitats they live in
- Many cultures all over the world, including Native Americans, use fire to change the ecosystem and/or farm



EVEN THOUGH WILDFIRE CAN KILL PLANTS, ITS EFFECT ON THE WHOLE ECOSYSTEM IS NOT ALL BAD.

Wildfire is like a speedy recycling system that helps renew the areas it happens in!



How fire effects the...

GEOSPHERE

- Soil isn't just crushed up rocks! There are also nutrients that plants need

- Wildfire "unlocks"
  - Minerals
  - Carbon

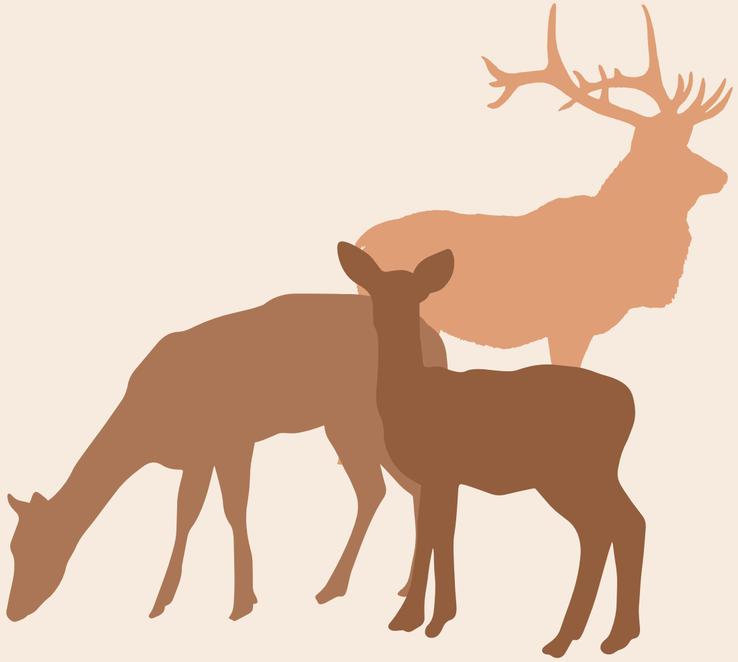
- Nutrients from older plants get turned into healthy soil for new plants



How fire effects the...

BIOSPHERE

- Fire thins forests so more plants in the understory can receive sunlight
- Some trees have adapted to fire with thick bark, and even need fire to drop their seeds
- Fire gives grass a “haircut” since most of the plant is underground



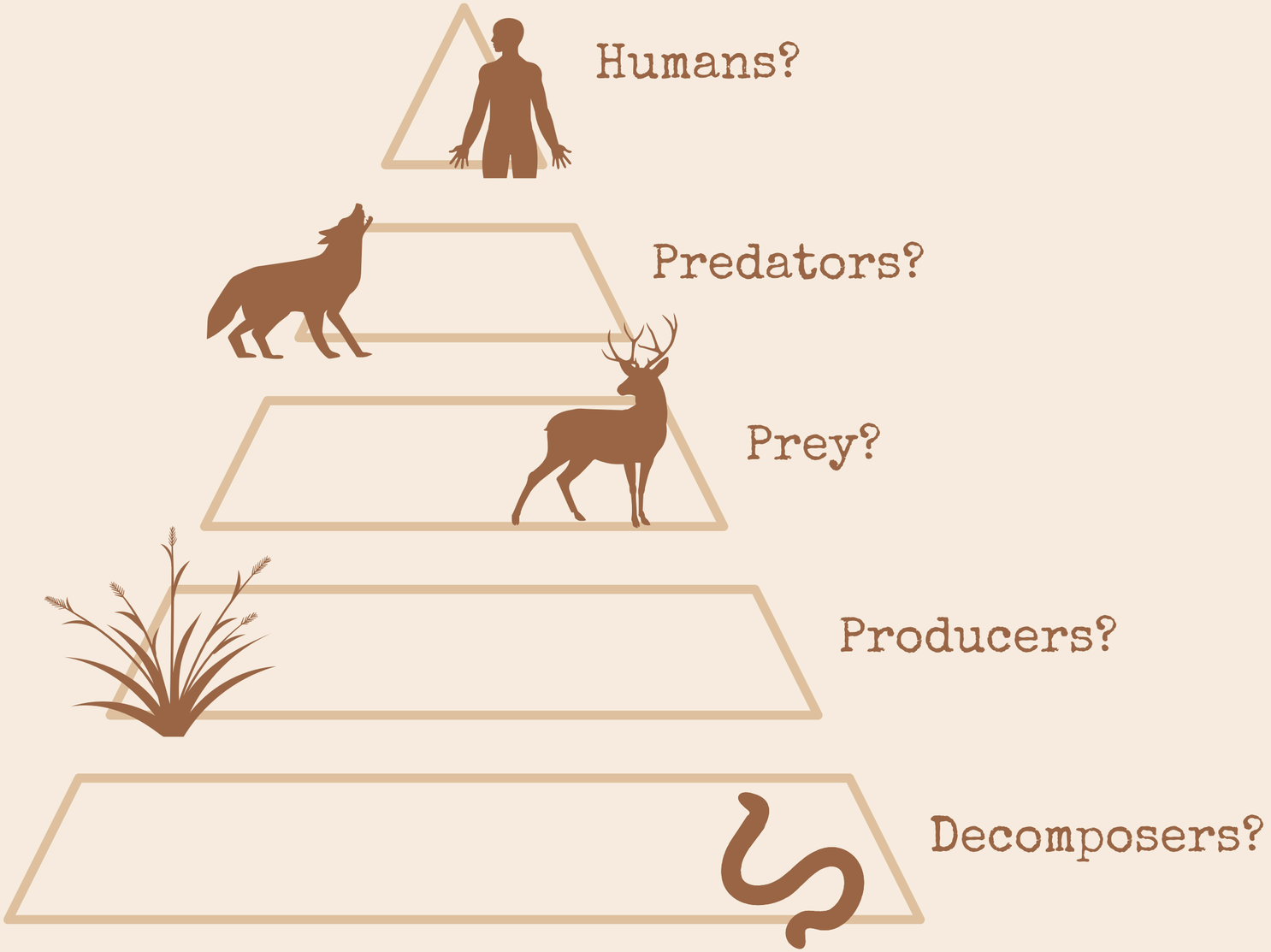


How fire effects the...

BIOSPHERE

- Most animals are able to escape fire by running, flying, or burrowing'
- Many animals return quickly to eat the growth of new plants
- Wildfire can control invasive species that are not adapted to fire like native species are

HOW WILL IT EFFECT





BUT NOT ALL OF THE IMPACTS OF FIRE ON AN ECOSYSTEM ARE GOOD.





How fire effects the...

HYDROSPHERE

- Roots of plants hold the soil in place, so when they are burned, the soil can become loose
- Heavy rain after burns move loose soil into water ways causing pollution
- River banks without plants can erode away



How fire effects the...

ATMOSPHERE

- Releases smoke into the atmosphere that can effect the health
- Releases carbon into the atmosphere which can contribute to the greenhouse gas effect
- Smoke can make temperatures cooler by blocking the sun



CLIMATE CHANGE THROWS OFF AND ECOSYSTEM' S FIRE REGIME

Hotter, drier weather can make fires more intense and more frequent than what they are adapted for. This can make it very hard for ecosystems to recover.

WHAT WE CAN DO

to protect our communities & nature







TRUE OR FALSE...

Most wildfires are started by deer and elk who like to set off fireworks in their free time.

TRUE OR FALSE...

You should always leave your campfire burning so bears can make smores when you're done.

TRUE OR FALSE...

All fires are only bad and don't have any good impacts on the habitat.



REFERENCES

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Nature Conservancy

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