VIDEO	AUDIO
Real images of Jezero from space and/or flyover of 3D-modeled version	This is Jezero crater. Today, it is a hostile landscape too bitterly cold and dry for any living thing to survive.
Drone footage of Lake Salda	A few billion years ago, Jezero might have looked similar to Earth's own Lake Salda in Turkey.
Artist representation of Mars with thicker atmosphere, liquid water. Microbes under microscope.	Back then, Mars owned a thicker atmosphere. It warmed the planet enough for water to flow and lakes to form in craters like Jezero. Such conditions could have supported the beginnings of life.
Real image(s) of Mars as it looks today	But did this warm environment last long enough to foster microbes? And why did Mars change so drastically?
Clean room footage of Perseverance	NASA's latest Mars rover, Perseverance, will investigate these questions by collecting Martian rock and soil samples that may one day return to Earth.
Side-by-side comparison of Perseverance and Curiosity	On the outside, Perseverance might look familiar. The rover's design borrows much from its older sibling, Curiosity.
3D animation of caching system	But on the inside, Perseverance holds something new: the Sample Caching System. This sophisticated machine will drill into the Martian surface and remove, image, and store chalk-sized cores of rock and soil.
Animation of sample caching? Animation of rocket taking off from Mars	Eventually, the rover will cache more than thirty cores for a future mission to pick up and send to Earth for intensive study.
Spinning model of Perseverance. Highlight analytical instruments on the rover's body	We can't learn much from these cores until they make their journey home, but Perseverance has more than one trick up its sleeve. The rover is outfitted with tools to discern the chemical makeup of the rocks and soil.
Animation of micro-level rock/crystal structure and/or images of meteor debris vs biological structures over standard background	By mapping the distribution of organic molecules in a rock, these tools could help scientists differentiate between organic debris from meteorite impacts and the remains of microbial life
Broad flyover of Perseverance planned path on 3D modelled crater with years indicated. Perhaps in-situ animation of rock sampling (NASA)	Perseverance will spend its first two years exploring Jezero and collecting samples on a meandering path from lakebed to shore. The rover's primary mission is to seek signs of past life, but researchers will also use the data to investigate the geologic and climatic history of Mars.

Within 3D crater model, near planned landing site. Image/illustration of what the rocks may look like. Zoom into atomic level to represent radiometric dating?	Beginning its journey on the dark crater floor, Perseverance will likely find a volcanic landscape frozen in time. If this surface is in fact fossilized lava flow, researchers may discern the lake's age, thanks to radiometric dating.
Move forward in crater model to edge of delta. Image/illustration of fine-grained clay and biosignatures we'd see on Earth.	Next, the rover should encounter fine-grained clay at the edge of the delta, which sits at the mouth of an ancient river that fed into the lake. On Earth, these clays often preserve biosignatures, so here Perseverance will look for organic compounds that could betray the existence of past microorganisms.
Move forward in crater model. Image/illustration of sandstone. Depiction of grains flowing down from headwaters?	Continuing its quest for ancient life, the rover will traverse rough sandstone. The grains of this sandstone might be billions of years old, having flowed downriver from some of the oldest terrain on Mars.
Vector animation of magnetic poles in atoms of rocks. Stock animation of planetary magnetic field and/or fade between artist concept of water-filled Mars to image of dry Mars	If so, researchers could study the magnetic signatures of these early rocks to unveil the history of the Martian magnetic field. One theory suggests that the field shielded a thick atmospheric blanket that once warmed the Red Planet—and when the field failed, the atmosphere dissipated, and the climate changed.
Move to edge of crater in 3D model.	To culminate its mission, the rover will seek the carbonate-rich shores of the ancient lake.
Image/illustration of carbonates. Stock video of stromatolites (at Lake Salda?)	These limestone-like carbonates are known on Earth to preserve stromatolites, mounds formed by bacterial growth. Thus, this is an ideal place to look for such geologic time capsules of past life.
Chemical equation for carbonates from CO2. Highlight regions where carbonates found on Mars and/or data viz of amount of carbonates on surface	But scientists are also interested in these minerals because they are scarce, despite an atmosphere that today is 95% carbon dioxide. Studying these rocks could reshape our limited understanding of the Martian carbon cycle.
NASA animation of Perseverance on Mars	Perseverance is the first Mars rover designed to seek signs of ancient life. But that's not the mission's only first.
NASA animation of Ingenuity helicopter	One instrument will record sound on the Martian surface for the first time. Another, the Ingenuity helicopter, will demonstrate the first powered flight on another planet– a challenging feat since the Martian atmosphere is 100 times thinner than

	Earth’s. If successful, Ingenuity could pave the way for future flight-driven exploration on the Red Planet.
NASA images/videos of moon samples, scientists using moon samples.	More than fifty years ago, humans retrieved rocks and soil from the moon for the very first time. These samples completely reshaped our understanding of the moon’s formation and continue to be studied today.
Clean room footage of Perseverance and/or animations of Perseverance on Mars/travelling through space	We can only begin to imagine what similar samples from Mars might teach us about the Red Planet, our solar system, and perhaps life itself.