

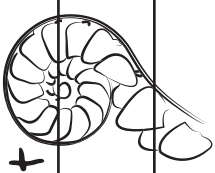


It's Your Turn to Be a Scientist

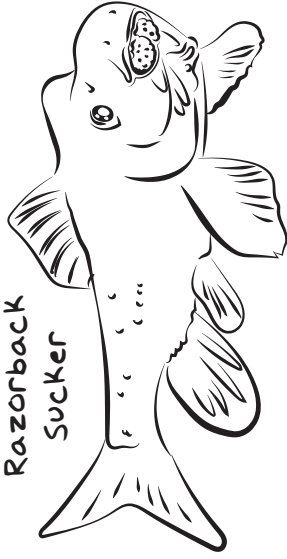
# Tracking Endangered Fish

Using the Patterns of Binary Code

STEM Taught



Razorback  
Sucker



Pikeminnow



Researchers track these endangered fish from the Colorado River Basin with binary code. If you create binary patterns using four spaces, or bits, you can create 16 possible combinations. Try creating all 16 binary patterns using four bits.

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Now get out Meeka microscope to help you write your binary patterns on rice grains.

- Step 1:** Get 16 rice grains, 1 microscope, a lump of clay, and a sharp pencil.
- Step 2:** Press your rice grain into the clay and bring it into focus under your microscope.
- Step 3:** Write each of the 16 binary patterns on a separate grain of rice.
- Step 4:** Store your grains of rice in a safe place.