Pre-Visit Activity 1 Resource
Trick or Treasure?

Archimedes was an ancient Greek scientist born in Syracuse, Italy over 2000 years ago. He was a man of many talents and invented many useful tools, machines and even came up with some theories of his own, many of which we still use now!

One day, the King asked to speak to Archimedes in the hopes that he would help him solve a problem he had. He explained how he had gone to the local goldsmith to make him a new crown and gave him the exact amount of gold he would need to make it. But when it was done, the King was worried that the goldsmith kept some of the gold for himself and filled the crown with silver instead! How can he know if this is true without breaking his new crown? Archimedes took this problem seriously and thought about it day and night. He was even thinking about it while taking a bath! After he filled up his bathtub to the brim, he started to slowly dip himself into water, making it spill out onto the floor. All of a sudden, Archimedes figured out the solution to his problem! He was so happy about his discovery that he jumped out of the bathtub and ran naked through the streets of Syracuse shouting, "Eureka, Eureka!" which in Greek means "I have found it!".

What did he find exactly? He had realized that the amount of water that overflowed from the bathtub depended on how much of his body he put under water. Therefore, he made the connection that when placing an irregular shaped object into the water, the water that spilled out would be equal to the volume of that object. That's what he needed to solve his problem! He immediately ran to King Heiron to test out his theory by placing his crown into a water tank.

Then, they placed the amount of gold the King had given to the goldsmith into the same water tank. If the change of water level was the same, that meant that the crown was made of pure gold. Was it a trick or treasure? Figure this out during your visit to Esplora.