Answers to: How Many Drops of Water Can Fit on a Penny?

1. Compare the results from the trials with soap and without soap.

More drops can be placed on the penny with no soap.

2. Explain your results in terms of cohesion and surface tension.

On the penny without soap, the water molecules stick together due to cohesion. The surface tension keeps the water from sliding off the penny.

3. How does adding soap to a penny affect how many drops can fit on it?

Because soap reduces the cohesion of water, surface tension decreases and water molecules break apart and can't stay on the penny.

Answers to: Roll or Slide?

1. What happens to the droplets of water?

They stick to each other.

2. What shape do they take on?

Round or sphere.

3. Do they move across the wax paper?

No.

4. Is this an example of cohesion or adhesion?

Cohesion.

5. If you keep adding more drops of water, the sphere will eventually flatten out. What force causes the sphere to flatten out?

The force of gravity.