

Surface Waves

Materials: Droppers, baking pan with shallow water, bottles of water, pencil and notebook.

This is an observational activity. You will be drawing and labeling your observations after each group of steps.

1. In your notebook, write the definition of a surface wave. (combination of transverse and longitudinal waves)
2. Fill a water dropper.
3. Wait for the water to be completely calm.
4. Drop three drops of water into the middle of the pool at a height of 30 cm.

Record and draw your observation. Use wave vocabulary.

Question: Were the waves even? Explain.

When did the waves stop?

Explain when they started and when they ended.

Next

1. Fill 2 droppers with water.
2. Drop water drops into the pool in two separate areas.

Record and draw your observations. Label the waves using vocabulary.

Question: Explain what happened when the waves interacted with each other.

Next

1. Place the water bottle in the center of the pan of water.
2. Fill water droppers. Wait for pool water to be calm.
3. Drop water drops into the pool, enough to see a pattern of waves.

Record and draw your observations. Label the waves.

Explain the waves reaction to the water bottle. Use all vocabulary words necessary to complete the explanation.

Take the water bottle out of the pan, dry any wet spots on the floor or counter and return empty droppers to the beaker.