

4-H Hands-on Science

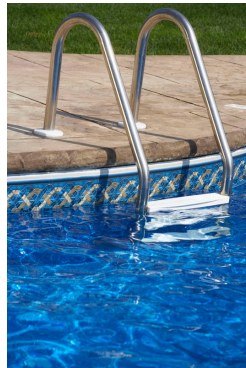
Inquiry Card Worth the Salt?

Type of Inquiry:

Experimental Design

Process Skills:

Observing, questioning, predicting, hypothesizing, selecting, measuring, recording, gathering data, experimenting, reviewing, analyzing, explaining, reporting.



The Scenario:

Salt water pools are becoming more popular in Canada. Owners of these pools do not have to constantly think of adding chlorine. A chlorine generator actually uses the chlorine available in the salt to chlorinate the pool. Once the chlorine has destroyed bacteria, it's converted back to salt. Environmentalists warn salt water pool owners to avoid doing backwash because the salt in water is very damaging for the grass and other types of plants.

Possible Independent Variables:

Salt concentration, chlorine concentration.

Open-Ended Inquiry Questions:

- To what extent does saltwater affect plant growth? At what concentration does saltwater start to be damaging for the lawn?
- Is chlorine also affecting plants?

Instructions:

1. Invite the young scientists to find what the rules are regarding the discharge of water from a saltwater pool.
2. Show them a photo of a dying lawn near a pool and invite them to make observations.
3. Use the Steps-to-Inquiry to invite the young scientists to record their observations and questions.
4. From their observations and questions, determine the variables and select them.
5. Have them write their questions from the variables and come up with a hypothesis.
6. Let them conduct their experiment, record their data, analyse it and come up with a conclusion.



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