

1982

## Games

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### Recommended Citation

(1982) "Games," *Iowa Science Teachers Journal*: Vol. 19: No. 1, Article 22.

Available at: <https://scholarworks.uni.edu/istj/vol19/iss1/22>

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- begin an intensive study of the standards for science teacher preparation.
- keep terms of office at two years rather than the three years proposed at the meeting.
- approve the contract with *Science 81* for a reduced subscription rate for NSTA membership.
- join the ACLU action in Arkansas involving the suit on creationism.
- receive a Science Skills Continuum developed by the Supervision Committee.

It really is a pleasure to work with so many good people that you have elected to represent you on the NSTA Board. It is time for nominations and elections for the position of District VIII director and some other Board positions. Furthermore, it will soon be time to recommend some of you to future committees of the Board. Please contact me if you are interested.

It is your association. Be active in it. Make your own lemonade.

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### **Games**

Many science games are created by innovative teachers to spark interest in a science lesson and may later be returned to classrooms as smartly packaged products. An annotated list of game sources is available from NSTA. Ask for, *Games for the Science Classroom: an Annotated Bibliography* by Paul Hounshell and Ira Trollinger.

### **Flame Tests**

Problems associated with flame tests include, (1) sodium contamination producing an overwhelming yellow flame, (2) the transient nature of the flame and (3) the hazard of concentrated HCl. The following techniques improve flame tests.

#### **Method for Metal Carbonates**

Place a few grams of carbonate of the metal ion under investigation in an evaporating basin. Add a few ml of 2M HCl. Play a blue Bunsen flame over the surface of the liquid. The CO<sub>2</sub> bubbles formed lift a spray of the solution into the flame producing the desired characteristic metal color.

#### **Method for Other Metal Salts**

Use the same method as above but add a few pieces of granulated zinc before the 2M HCl. In this case the hydrogen gas formed lifts the spray into the Bunsen burner.

“Men who have excessive faith in their theories or ideas are not only ill prepared for making discoveries; they also make very poor observations.”

*Claude Bernard*