



What do we learn from ...

Bob's Buttons

Summary

On a signal from the teacher the children form into groups of a stated size and the number of groups and the number of ungrouped children is recorded. This is played several times then the teacher poses the problem, which involves working backwards from groups/remainder data to find the original number in the class. The problem is easily understandable because the students are physically involved in setting it up. It has many extensions. In the plan, a green dart highlights how and where the process of Working Mathematically is woven into the lesson.

Features

Discuss the part these features play in the lesson.

Are there other features important to you?

- Exposing the Working Mathematically process
- Physical involvement
- Mixed ability
- Unfolding levels of challenge
- Small group work
- _____
- _____
- _____

Straw Vote

After teaching the lesson, please rate each of the following features (out of 10) as to its contribution to the overall quality of the learning experience. This exercise will provide a basis for staff discussion.

1. Working Mathematically _____
2. Physical involvement _____
3. Use of materials _____
4. Content in context _____
5. Open-ended exploration; many extensions _____
6. Mixed ability - suits many grade levels _____
7. Non-threatening _____
8. Software as an analysis tool _____

Lesson Stages

1. Introduce & play the game
2. Explore the game with counters
3. Challenge
4. Make and test hypotheses
5. Conclusion and extension

Issues or Discussion Points

- The main aim of this lesson is to teach the Working Mathematically process, but content development and practice are still a key part. What would curriculum look like if our responsibility was to teach the subject of Working Mathematically rather than to teach mathematics?
- Suppose we had 200 problems like this to choose from as the groundwork for our curriculum?...?
- What contribution does the software make to the learning?