The Chocolate Challenge

Topic: Fractions
This contextualised problem challenges students to think about fractions.

Year Group: 1st Year

Presenting the Problem

There is a room in Ballymakenny College with three tables in it. There are 3 people at table 1 and one bar of chocolate on it. Table 2 has two bars of chocolate on it with 5 people. Table 3 has three bars of chocolate and 7 people. You must ask yourself the following question:

"If the chocolate on the table I sit at is to be shared out equally when I sit down, which would be the best table to sit at?"

The Boardwork

Prior Knowledge & Posing the Task 5 minutes	→	Students working on the problem 25 minutes	→	Presentation of Solutions & Ceardaíocht 20 minutes	→	Summing up & Reflection 10 minutes

Reflecting on the Learning

Initially, students were concerned that they were not informed as to the number of squares per bar of chocolate. Students needed reassurance that the bars could be divided into any number of squares if they wished. A common misconception amongst students was their perception of "the unit" and saw each bar of chocolate as the unit rather than the total amount at each table. This caused problems when trying to determine which table they should sit at to get the most.

Overall, the students were challenged, engaged and were keen to solve the problem in as many ways as possible. There was a competitive dynamic within the class group as students enthusiastically explored the range of methodologies at their disposal.

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