

Perfecting Percentages

Topic: Percentages, Decimals and Equivalent Fractions

A lesson designed to help students appreciate the usefulness of percentages for understanding proportion.

Year Group: 1st Year
Level: Mixed Ability

Presenting the Task

Last week Sarah's Report Card arrived home with the following results.

REPORT CARD	
English	15/20
Maths	47%
Science	0.73
French	39/50
History	68%
Business Studies	111/200

Write the results in as many ways as you can.

Flow of the Lesson

Sarah's report card

Decimal Fraction Percentages

English $\frac{15}{20}$

Maths 47%

Science 0.73

French $\frac{39}{50}$

History 68%

Bus studies $\frac{111}{200}$

Sarah's best subject?

Sarah's weakest subject?

Order (rank) her subject results from best to weakest...

What way did you use to rank her results?

Sarah wants to improve her Maths result to 70%. Her teacher says there will be 40 q's, all equal marks in the next exam. How many questions will Sarah need to get right to achieve 70%?

Percentages

English $\frac{15}{20} = 75\%$ B H3/O3

Maths 47% D H6/O6

Science 0.73 73% B

French 0.78 78% B

History 0.68 68% C

Bus studies 55.5% C

Sarah's best subject?

Sarah's weakest subject?

Order (rank) her subject results from best to weakest...

What way did you use to rank her results?

Sarah wants to improve her Maths result to 70%. Her teacher says there will be 40 q's, all equal marks in the next exam. How many questions will Sarah need to get right to achieve 70%?

Percentages are Powerful Fractions

Engaging examples:

- Exam results
- Sales - 50% off
- Weather 10% rain
- Sugar/Fat content in food
- Statistics e.g. Census 2016
- Askeaton:
- C.S.O. Primary education 20%
- data Second level 64%
- Third level 16%
- Bank Interest rates 3.95%

Prior Knowledge & Posing the Task
5 minutes

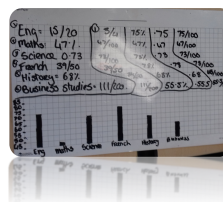
Students working on the problem
8 minutes

Presentation of Solutions & Ceardaíocht
20 minutes

Summing up & Reflection
5 minutes

Reflecting on the Learning

Students worked enthusiastically, switching with ease between decimals, fractions and percentages. Work was presented using a variety of layouts with one group making a link to statistics and drawing a bar chart. Links were also made to bank interest rates and the new Common Points scale. Students were observed self-correcting and fully engaged to the end of the lesson.



Developed by John Dromey, Niamh Hogan, Liz Purcell and Pearse Ryan with thanks to Séamus Ó Conghaile MDT and the students of Coláiste Mhuire, Askeaton, Co. Limerick.

To download this lesson plan visit www.projectmaths.ie/mc2017

