

Tideal: An Barra Seacláide is fearr luacha

Acha(i)r Foghlama:

Matamaitic agus Uimhearthacht: Miosúir - Leibhéal 5;
Próisís - Leibhéal 5.

Scileanna Traschuraclaim:

Ag Úsáid Matamaitice - Leibhéal 5: Aimsigh, bailigh, próiseáil agus léirmhínigh/bain ciall as eolas.

Féidireachtaí d'Intinní Foghlama:

Miosúir: Réitigh fadhbanna a bhaineann le meáchan.

Próisís: Ag déanamh socruithe agus ag déanamh monatóireacht ar na socruithe siúd:

- o aithin agus bailigh an t-eolas atá de dhíth don tasc;
- o roghnaigh agus bain feidhm as an mhatamaitic chuí atá de dhíobháil don tasc.

Scileanna Smaointeoireachta / Cumais Phearsanta:

A Bheith Cruthaitheach: Déan nascanna úra idir idéanna / eolas.

Ag Obair le Daoine Eile: Glac freagrácht phearsanta as bheith ag obair le daoine eile agus déan luacháil ar d'ionchur féin d'obair an ghrúpa.

Gníomhaíocht:

Seo sampla d'fhiosrúchán matamaiticiúl oscailte. Sé sin nach bhfuil aon chur chuige áirithe ná aon réiteach réamhshocraithe i gceist. Is é an tasc ná an cheist a leanas a fhiosrú:

'Cén barra seacláide is fearr luach an airgid?'

- Caithfidh gach grúpa socruithe a dhéanamh roimh agus tar éis a fhiosrúcháin.

- Beidh éagsúlacht sa mhéid tacaíochta oide a bheas ag teastáil ar na foghlaimeoirí ag brath ar a leibhéal réamhthaithí de bheith ag obair ar an chaoi seo.

Cur Chuige na Gníomhaíochta:

Réamheolas:

- Tá réamheolas ar an choinceap 'Roinnt' de dhíobháil siocair gurb í seo an obráid mhatamaiticiúil ar chóir a úsáid le *luach an airgid* a ríomh.

Barraí Seacláide le ceannach:

- Beidh dornán barraí seacláide de dhíth ar gach grúpa go dtig leis na páistí comparáidí a dhéanamh eatarthu agus chun meáchan agus praghas an uile cheann de dhéantús éagsúil a fhiosrú.
- Cinnigh go mbeidh go leor barraí seacláide agat go mbeidh a sáith agus éagsúlacht shásúil ag gach grúpa.

Eagrú na bhFoghlaimeoirí:

- I ngrúpaí de 3 nó 4

An Dóigh a n-Oibríonn sé:

- Tugtar cárta do na páistí a léann:

'Cén barra seacláide is fearr luach an airgid?'

- Ní mór do na páistí dóigh oibre a shocrú, deáileáil le dinimicí grúpa, an cheist a phlé, aontú ar fhreagra (le cúiseanna) agus freagra a bhfiosrúcháin a eagrú / a chlárú / a thaifead le cur i láthair ag an deireadh.

Samplaí Féidearthachtaí Ábhar Machnaimh:

- Cad a chiallaíonn 'is fearr luach an airgid?'
- Conas is féidir linn á mheas?
- Cén t-eolas atá de dhíth orainn?
- Cén dóigh a dtig linn an t-eolas a bhailiú?
- Cén sórt ríomhairreachtaí a chaithfidh muid a dhéanamh?
- Cad é mar a thaispeánfaidh muid ár gcuid torthaí?

Réiteach na Ceiste/na Gníomhaíochta:

1. Le go gcuirfear an tasc i gcrích go sásúil ní mór do na foghlaimeoirí a léiriú gur bhain siad feidhm as modh matamaiticiúil ceart chun an luach airgid a ríomh do nauile barraí seacláide uilig a shocraigh siad a chur i gcomparáid a chéile.
 - D'fhéadfáí seo a léiriú trí chostas 1 gram de gach barra a ríomh, sé sin trí chostas iomlán barra a roinnt ar a mheáchan féin.
 - Ina ionad sin thiocfadh leo a fhiosrú cén meáchan barra a d'fhéadfadh siad a cheannach ar 1p, sé sin tríd an mheáchan a roinnt ar chostas an bhabra.
2. Caithfidh an modh áirithe a mbaintear feidhm as a bheith mar an gcéanna do na barraí uilig atá á gcur i gcomparáid lena chéile.
3. Nuair a bheas barraí á gcur i gcomparáid a chéile ní mór do na foghlaimeoirí fianaise a thaispeáint de bheith ag clárú / ag cur a dtorthaí i láthair go soiléir agus go córasach, m.sh. trí thábla a chruthú.
4. Mar chríoch ba chóir dóibh an barra is fearr luacha a ainmniú agus torthaí a gcuid ríomh a léirmhiniú a thug chuig an socrú sin iad agus a thacaigh lena gcinneadh.

I nDiaidh Chríoch an Taisc Féin:

Ba chóir do na foghlaimeoirí:-

- athmhachnamh a dhéanamh ar an dóigh ar thug siad faoin tasc agus
- cé chomh maith is a chomhlíon siad riachtanais an taisc.

Samplaí Féidearthachtaí Athbhreithnithe:

- Nuair a bhí tú ag tabhairt faoin tasc cad é an chéad rud ar smaoinigh tú air, an dara rud is araile?
- Ar thuar tú cén barra a ba dóiche ab fhearr luach airgid sular thosaigh tú?
- An raibh do thuar beacht?

Samplaí Féidearthachtaí Luachála:

- ✚ An raibh tú in innimh ciall a bhaint as an fhadhb?
- ✚ Ar shocraigh tú cad é bhí ort a fháil amach?
- ✚ Ar thuig tú cén eolas a bhí uait?
- ✚ Ar oibrigh tú amach cad é bhí ort a dhéanamh leis an eolas sin?
(nascanna nua idir idéanna / eolas)

- ✚ Ar bhain tú sult as bheith ag obair i do ghrúpa? Cad chuide ar ... /Cén fáth nár ...?
- ✚ An raibh ról ar leith agat sa ghrúpa?
- ✚ Cé chomh maith is a d'éist tú le baill eile an ghrúpa?
- ✚ Ar mhínigh tú do chuid smaointí do na baill eile?
(Freagracht phearsanta a ghlaicadh as bheith ag comhobair le daoine eile agus d'ionchur féin don ghrúpa a luacháil)

Ag Déanamh Nascanna:

A. Déanann an dúshlán seo nascanna idir:

- i. Míosúir (ag aithint go gcaithfidh an praghas costais agus an meáchan a fháil);
- ii. Ag Láimhseáil Sonrai (ag cruinniú, ag eagrú agus ag cur eolais i láthair) agus
- iii. Uimhreas (tuiscint ar choinceap na Roinnte le teacht ar mhodh chun luach maith airgid a ríomh).

B. Forbraíonn an tasc seo scileanna Próiseas chomh maith, mar atá:

- ag aithint agus ag aimsiú an eolais atá de dhíth don tasc
- ag roghnú agus ag baint feidhme as an mhatamaitic chuí atá de dhíobháil don tasc.

C. Is scil shaoil ríthábhachtach í tuiscint ar an choinceap luach do chuid airgid agus tá sí mar chuid de na riachtanais úra in Úsáid na Matamaitice le Cumas Airgeadúil a fhorbairt.

Title: Best Value Chocolate Bar

Area of Learning:

Mathematics and Numeracy, Measures Level 5 ; Processes Level 5

Cross - Curricular Skills:

Using Mathematics Level 5 : Identify, obtain, process and interpret information.

Possible Learning Intentions:

Measures: Solve problems using weight.

Processes: Making and Monitoring Decisions: identify and obtain the information required for a task. Select and use the mathematics required for your work.

Thinking Skills/Personal Capabilities:

Being Creative:

Make new connections between ideas/information.

Working with others:

Take personal responsibility for working with others and evaluate own contribution to the group.

Activity:

This is an example of an open-ended mathematical investigation. There is no set method or solution known in advance. The task is to investigate the question: "Which chocolate bar is the best value for money?".

Decisions need to be made by each group, before and during their investigation. The level of teacher support needed will vary with the level of prior experience of the learners in working in this way.

Classroom Management:

In groups of 3 or 4.

How It Works:

The children are given a card, which states:

"Which chocolate bar is the best value for money?"

The task requires a knowledge of the concept of division, which is the operation the learners should use to calculate value for money. They will need to get some chocolate bars to compare, and find the weight and price of each.

Possible points to think about:

- What does best value mean?
- How can we measure it?
- What information do we need?
- How can we collect the information?
- What calculations do we need to do?
- How can we show our results?

Solution:

Successful completion of the task involves the learners demonstrating that they have used a mathematically correct method to calculate the value for money for each chocolate bar they have decided to compare.

This could be calculating the cost of 1 gram of each bar, by taking the cost price and dividing it by the weight.

Alternatively they might find what weight of each bar they could buy for 1p, by taking the weight and dividing it by the cost price.

The particular method chosen must be consistent with all the bars being compared.

When comparing bars, the learners should show evidence of presenting their results clearly and systematically, e.g. by constructing a table.

Finally they should identify the best value bar, by interpreting the results of their calculations.

Metacognition

This involves reflecting on how they went about the task and evaluating how well they met the requirements of the task.

Reflecting:

When you were doing the task, what did you think about first, second and so on? Did you predict which bar would be the best value for money before you started? Was your prediction correct?

Evaluating:

Were you able to make sense of the problem?
Did you decide what you had to find out?
Did you realise what information you needed?
Did you work out what to do with that information?
(Make new connections between ideas/information)

Did you enjoy working in your group? Why / why not?

Did you have a particular job to do in the group?

How well did you listen to the others in the group?

Did you explain your ideas to the other people?

(Take personal responsibility for working with others and evaluate own contribution to the group)

Making Connections:

This challenge makes connections between Measures (realising they need find the cost price and weight), Handling Data (collecting, organising and presenting information) and Number (understanding the concept of division to be able to find a method to calculate value for money). Understanding the concept of value for money is a vital life skill, connected to the new requirements in Using Mathematics to develop Financial Capability. It also integrates the Processes skills of identifying and obtaining the information required for a task; also selecting and using the mathematics required for their work.

