



Protect the egg - Activity plan



Description

Learners must make buying decisions to creatively protect an egg before tossing in the playground.

Preparation

Divide the class into groups (teams) of 3-5 learners.

Gather the resources or ask the class to bring in one of the items each (used but clean).

Set up stalls for the different item types – adhesives, papers, plastics, containers. Add prices to the items. Set prices in the range of £10 to £30.

Print and cut out the reflection cards.

Resources

Eggs – 2 per team

Adhesives – e.g. sticky tape, blue or white tac, paper clips,

Papers – e.g. newspapers, packaging,

Plastics – used carrier bags, packaging,

Containers – cardboard boxes, plastic boxes

Vocabulary

Value, price, barter, budget

Introduction/context

Divide class into groups of 3-5 learners.

Set the context. Highlight the importance of making good buying decisions, weighing up cost, quantity and standards.

Describe budgets to learners and the importance of ensuring we have enough money for what we need before we buy things we want. Allow learners to name their teams.

Write each team name in a column on the board. Write £100 under each team name.

Outline the challenge.

Each team will be given two eggs to protect.

They will have a hypothetical £100 to spend on the items laid out at each stall.

Each team will use the items they purchase to protect their eggs before they are thrown up/kicked in the playground.

The team with the most eggs intact and most money saved, will be the winner.

Describe the design and budget task (below). Provide structure to learners of how to present and plan their designs and budgets.

Timing
15-30 mins

Design and budget

Ask teams to draw and label design ideas. Encourage students to explore practical solutions to protect the eggs and creative solutions to give their designs individuality and team identity. Teams should agree on an approach and decide the materials they will need.

Teams should consider maximum budgets for each item and contingency plans if specific items become unavailable.

Timing
20-30 mins

Open the stalls

One learner from each team will purchase the items from the teacher. Allow one team at a time to purchase one item at a time, to ensure fair access to the items. Allow learners to barter where reasonable. Try to limit the number of items purchased by each group to encourage a more creative design. As teacher you will take the role of shopkeeper and handle the sale of items to all groups. With each purchase, add the amount spent to the columns on the board, to calculate a remaining balance.

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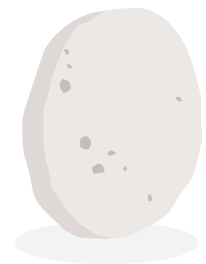
Timing 2-5 mins	Issue eggs to each team If possible, take the teams and their items outside, before issuing the eggs.
Timing 20-30 mins	Protect the eggs Allow each team time to create their solutions to protect their eggs, using the items they have purchased.
Timing 15-30 mins	Egg tossing/kicking One team at a time, the teacher should toss or kick their eggs in the playground. Carefully open the package and check if the eggs are still intact. Make a note before heading into the classroom to compare scores.
Timing 5 mins	Totalling up Add the number of eggs intact to the columns on the board and acknowledge the winning team with a round of applause.
Timing 20-45 mins	Plenary/conclusion Ask learners to complete the reflection cards. Also, take the opportunity to highlight forces, that have been explored, and their impact on the designs. Did learners consider impact and gravity in their designs? What design solutions did they come up with? Cushioning? Parachutes? Shock absorption?

Variations/expanding on the activity

The table sale can be replaced with an auction once learners have a sound understanding of budgets and buying decisions, to make good, quick buying decisions.

The egg tossing can incorporate in a physical education activity, by using the 'egg packages' for various mini sports such as football, tennis or rugby. In this case, allow for learners to buy more protective items, to account for the additional force that they will be subject to.

The team budget can be adjusted to suit numeracy level, appropriate to the class.



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<p>Name:</p>	<p>Name:</p>
<p>What do I think about the things we bought?</p>	<p>What do I think about the things we bought?</p>
<p>Did we get good <u>value</u> for our <u>budget</u>?</p>	<p>Did we get good <u>value</u> for our <u>budget</u>?</p>
<p>How well did our design work? Did it work as we expected?</p>	<p>How well did our design work? Did it work as we expected?</p>
<p>What did my teammates do well?</p>	<p>What did my teammates do well?</p>
<p>What did I do well?</p>	<p>What did I do well?</p>
<p>What would I do differently next time?</p>	<p>What would I do differently next time?</p>