

Save Humpty! - Collaboration

EXPLANATION:

Teams must work together to find a way to save 'Humpty Dumpty' as he is dropped from a height down to the ground! The task is a teambuilding activity that involves collaboration, creativity and problem solving using only limited resources. This activity will illustrate the importance of listening to team members and involves project skills - designing and developing Humpty's safe landing!

YEAR LEVELS: Years 11–12

STUDENT GROUPING: Small groups of 3 to 4 students

ACTIVITY LENGTH: 60 mins approx. including the building of the structure, demonstrations, group discussion time and feedback.

LINK TO CURRICULUM:

This activity supports the development of 21st century skills include critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills, and information and communication technologies (ICT) skills. In particular: analytical thinking; problem-solving; reasoning; innovation; generating and applying new ideas; relating to others (interacting with others); recognising and using diverse perspectives; participating and contributing.

Link to General Capabilities and cross-curriculum priorities in the Senior curriculum:

Mathematics connections: Each of the senior secondary mathematics subjects provides the opportunity for the development of informed and reasoned points of view, discussion of issues, research and problem solving. Teachers are therefore encouraged to select contexts for discussion that are connected with sustainability. Through the analysis of data, students have the opportunity to research and discuss sustainability and learn the importance of respecting and valuing a wide range of world perspectives.

Personal and social capability: Students develop personal and social capability in *English* by enhancing their communication skills, teamwork and capacity to empathise with and appreciate the perspectives of others. Close study of texts assists students to understand different personal and social experiences, perspectives and challenges. Students identify and express their own opinions, beliefs and responses by interacting with a range of texts. *English* actively assists students in the development of communication skills needed for analysis, research and the expression of viewpoints and arguments. Students work collaboratively in teams and also independently as part of their learning and research endeavours.

SCOPE OF TASK:

Successful collaboration and teamwork require communication, active listening, problem solving and cooperative spirit. This activity may also require good luck!



1. Explain the objectives/rules of the task:

- The goal of the task is to use teamwork, creativity and problem-solving skills to design a structure that will prevent Humpty (the raw egg) from breaking from a drop of 2 metres
- To achieve a perfect landing, students could consider creating a structure that guides the egg safely to the ground – or a structure that provides a soft landing
- Teams can use only the resources provided
- Teams must name their structures/devices
- At the conclusion, each structure must be demonstrated, and feedback will be required explaining design techniques used
- The winning team will be the team whose egg has remained intact, if more than one team has eggs intact – the structure using the least support materials wins. If no eggs remain intact – there is no winner.

2. Arrange students into groups of 3 - 4 or allow self-selection of groups. Separate teams so that each has space to work in private.

3. Commencement of task:

- Distribute resources to each group
- Advise the time limit (determined by teacher).

4. During task:

- Encourage continued creative thinking
- Remind time left for task.

5. When the time limit is reached, end the task and call for everyone's attention.

6. Demonstrations: For fairness and consistency, the height of the structures should be checked. Have teams demonstrate their structures and provide feedback to the group. Feedback should include:

- The name of the structure/device
- Design details of the structure.

Suggested questions:

- Was there a leader in the group?
- Who took on what roles? Why?
- Did the team collaborate effectively? Why? Why not?
- What would the team do differently next time?

7. Determine winning team. (refer back to rules in '1.' above)

An **ALTERNATIVE TASK STRUCTURE** can be used which will, however, significantly increase the difficulty level of the task:

- Do not supply any materials
- Direct the students to find materials from outdoors.

RESOURCES:

- Sufficient raw eggs to give one to each group
- 20 straws (recycled) – or like materials
- 1.5 metres only of masking tape
- Measuring ruler/tape
- Step ladder – for use during demonstrations.