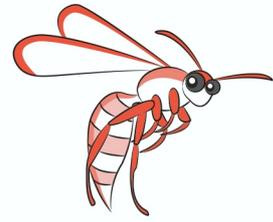


Paper Aeroplanes – Teacher Notes



We need to monitor our resource use so that it is sustainable and remains available for future use. There must be time for the source to be recharged.

Students will create paper aeroplanes or hats from old newspapers (limited resource). The aeroplanes will be flown across the yard to another student where it will be recycled for re-use.

This activity is best performed outside the classroom so the second student and third students have to walk/ run a reasonable distance between stages.



Materials per group of three:

- Location 1 10 sheets of newspaper and a desk or flat surface
- Location 2 a flat surface
- Timer/clock

Student roles

- Folder
- Runner
- Unfolder

1. The first student folds sheets of newspaper to create a paper aeroplane or hat as fast as they can. This is then carried by the runner to the second location or flown there.
2. The third student at the other end of the yard accepts the aeroplane, unfolds it and passes it back to the runner to carry back for re-use.
3. Find out how long it takes to make fifteen hats.
4. Pause and discuss what limits production and how it can be improved.

Amount of paper, age and condition of paper, speed of construction and breakdown, speed of runner, number of people at each stage.

What must be changed to make this a sustainable production?

Recharge must meet demand

Hat folding instructions at: <http://www.uggabugga.com/Arts%20&%20Crafts/Origami/Origami%20-%20Hat%20Instructions.htm>

Maintaining resources so that they continue to be available to support life is termed SUSTAINABILITY.

Students may wish to reflect on the logistics involved in organising the removal of gold ore from the “Super Pit” in Kalgoorlie. Trucks have to travel at a specific speed to prevent traffic jams, facilities have to be available for drivers to go to the toilet in the vehicle to prevent hold ups and loaders must have a continuous supply of ore to be loaded. Food breaks and shift changes have to be carefully calculated to create least impact on production. These factors control the efficient rate of removal.