1 INTRODUCTION

This fun manga-themed classroom adventure sends pupils on a mission to defeat the evil "Land Phil", who is growing in power as more and more waste is thrown away. With the help of the Infinites, a group of warriors who use the power of recycling, pupils will embark on a series of team-based quests to defeat Land Phil.

The lesson teaches pupils about the need to recycle, focusing on four different packaging materials and how and why they can be reused. By exploring the properties and recyclability of aluminium, steel, glass and plastic, pupils will learn how they can take action to save our planet.

The lesson culminates in pupils making a personal pledge to recycle more, and being challenged to enter a competition where they could win an iPad for themselves and a £/€1,500 voucher for your school (from your chosen outlet).

This resource is brought to you by Alupro/Alupro Ireland, industry-funded, not-for-profit organisations working to meet, and exceed, the industry's recycling targets for aluminium packaging.

Alupro are achieving this by working in partnership with local authorities, the waste management industry and the wider metal packaging sector, to develop and stimulate the UK's collection infrastructure. They also manage and run consumer information and education campaigns to encourage participation in recycling schemes.

2 WHAT YOU'LL NEED

These Masters of Infinity resources include:

- Lesson Guide – explaining everything you need to run the session in school or at home
- Animation – a short introduction to the Masters of Infinity warriors and the competition, to show in class or in assembly
- PowerPoint Presentation (UK or ROI version) – guiding pupils through the adventure
- Infinity Cards – containing vital facts and statistics about the four warriors and their properties – printable or online interactive
- Quests (UK or ROI version) – including task sheets for all four quests
- Take Home Pledge – with a 'stick-on-the-fridge' recycling guide for families
- Competition Entry Form
- Recycling Posters – to put up around your school

Additional resources required:

- Computers/tablets for using the digital Infinity Cards
- Computers/tablets to research local recycling rules, or you could prepare information in advance for pupils to look at
- Coloured pens or pencils for the competition entries

3 TIMINGS AND SETTING

This lesson could be done in a one-hour session, with additional time given if completing the competition entry in class. Alternatively, pupils could complete their comic strip for homework and return it to school to be submitted.

The lesson uses team-based challenges, which can be set up as a carousel in the classroom. However, if delivering as a home learning activity, pupils could work through the quests on their own.

LESSON SECTION	RESOURCES	INSTRUCTIONS
Before the lesson	Masters of Infinity Lesson Guide, PowerPoint, Quests, Infinity Cards, Take Home Pledge and Competition	**WHAT ARE WE GOING TO LEARN?** • Familiarise yourself with the resources • Print out **Quests** and **Infinity Cards** (one per team), and create as stations around the room (if delivering as a carousel) • Prepare computers/tablets with the digital Infinity Cards, if using (one per team) • Print **Take Home Pledge** and **Competition Entry Form** (one per pupil)
Introduction 5 minutes	Masters of Infinity PowerPoint	 **SLIDE 2** Introduce the Masters of Infinity Lesson and play the animation to get pupils excited about the quests they will take on. You could ask them to guess what they think the lesson will be about.
Whole-class learning 10 minutes	Masters of Infinity PowerPoint and prepared resources as above	 **SLIDE 3** Ask pupils what they think infinity means, then reveal the definition and introduce the aim of the lesson – to learn more about the properties of 'infinite' materials and how and why we can recycle them. **SLIDE 4** Introduce the villain Land Phil and explain how he is harming our planet. **SLIDE 5** Explain how recycling can help. Pupils complete a one-minute speed challenge to draw as many recyclable packaging items they can think of. **SLIDE 6** Pupils match the items and the materials they are made from. **SLIDE 7** Explain that these packaging materials are all recyclable. **SLIDE 8** Introduce the Infinites, get pupils into teams of 4 or 5 and hand out Infinity Cards or computers/ devices if using the digital version. From this point of the lesson you could award teams points based on how well they complete the activities, and come up with an overall winner at the end.

LESSON SECTION	RESOURCES	INSTRUCTIONS
Whole-class learning 10 minutes	Masters of Infinity PowerPoint and prepared resources as above	 **SLIDES 9 TO 12** Explain how the Infinity Cards work, then ask pupils to be ready for a team challenge where they must find information and hold up the correct card. **SLIDE 13** Focus on the amazing properties of aluminium with a gap fill exercise. Teams should work together and put their hands up when they have the correct order. They could do this by writing a list of numbers 1 to 7 with the correct word by each question number.
Team quests 40 minutes	Masters of Infinity Quests and Infinity Cards Computers to research recycling or pre-prepared information on local recycling rules	 **SLIDES 14 TO 15** Introduce the Team **Quests** and set pupils off on these. Depending on your class, you may wish to model each activity and then give pupils time to complete each one, or set up the activities as a carousel that groups move around. You could set a timer of ten minutes (or more if required) for each challenge.
Quest 1 **Supermarket Saviours**		**Help a friend to turn a trolley full of non recyclable food and drink packaging into recyclable packaging options.** Pupils use the cards to find out what food and drink packaging is recyclable. They fill in a table to show what they are made from, whether they can be recycled and, if not, suggest alternative items.
Quest 2 **Energy Warriors**		**Find out which recycled items save the most energy.** Pupils fill in a table using the Infinity Cards (printed or digital) to show how much energy recycling saves. They then use maths skills to add up the amount of energy saved by different towns who have collected lots of recycled packaging and rank from most to least energy saved. Each team member could work out the maths for each town.
Quest 3 **Bin Busters**		**Help a neighbour to recycle more.** Pupils create a fun song, rap or other creative idea to persuade a friend or neighbour to recycle more. They then create a poster to show how to recycle in their area. The team could split in two, to work on each half of the challenge. If pupils need additional support for the first task, you could start by creating a class mind map of relevant vocabulary they could use. Together, you could then model how to write a letter, rap or other creative idea to get pupils started.
Quest 4 **Properties Power Up**		**Design new items from the four materials.** Pupils use the Infinity Cards (printed or digital) to check the properties of each material. They use these to design new items that can be made from recycled packaging. Each team member could design an item from a different material. You might like to help pupils generate ideas by suggesting different items they could create. They could consider creative ways to use the materials, for example, a new kind of vehicle made from aluminium, a glass sculpture or a building made from plastic. You could generate ideas together to support pupils.

LESSON SECTION	RESOURCES	INSTRUCTIONS
Quest review 5 minutes		 **SLIDES 16 TO 21** Share answers with pupils as they mark another team's work. Use answers where given and discuss and review any other ideas. Pupils could perform their Quest 3 song/rap or showcase their idea for extra points. Congratulate the teams on their scores.
Pledge 5 minutes	Masters of Infinity Take Home Pledge	 **SLIDE 22** Explain that although they have battled against Land Phil, they must continue to do so at home and at school through recycling. Pupils complete their **Take Home Pledge**.
Competition	Masters of Infinity Competition Entry Form	 **SLIDE 23** Introduce the competition to complete a comic strip and discuss the success criteria. Show pupils what they need to do on the entry form and set as class or homework.

5 ENTERING THE COMPETITION

Inspire your pupils to get creative by creating a manga-style comic strip. Encourage them to show the journey of an aluminium drink can after it is placed in the recycling bin. As you have just been learning, aluminium is infinitely recyclable! Help your pupils put their learning into practice and they could **win an iPad for themselves and a £/€1,500 voucher for your school** (from your chosen outlet).

All they need to do is complete the Competition Entry Form provided and return it to us by **Friday 29th January 2021**. You can scan or take a high-quality photograph of both sides of the form and email them to: competitions@nationalschoolspartnership.com or you can post their entries to: Alupro Masters of Infinity, We Are Futures, 1 Paris Garden, London, SE1 8ND

See full T&Cs (https://nationalschoolspartnership.com/initiatives/alupro-tcs).

SUCCESS CRITERIA

- Show how the drink can is turned into one or more different objects. These could be packaging, or something much more creative
- Consider the properties of aluminum that would make different objects work
- Include one or more amazing facts about recycling aluminium
- Be creative with your manga-inspired drawing style

Get creative with your pupils to show what happens to an aluminium drink can on its epic and infinite journey!

CURRICULUM LINKS

ENGLAND

PSHE
- L15. that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment across the world

SCIENCE
- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity and response to magnets

ART & DESIGN
- To improve their mastery of art and design techniques, including drawing

MATHS
- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

ROI

SOCIAL, PERSONAL AND HEALTH EDUCATION
- Appreciate the environment and develop a sense of individual and community responsibility for caring for the environment and being custodians of the Earth for future generations

SCIENCE
- Identify and investigate a widening range of common materials in the immediate environment
- Explore the origins of these materials

VISUAL ARTS
- Draw imaginative themes using inventive pattern and detail e.g. characters in cartoon strips

MATHEMATICS
- Select appropriate materials, concepts and processes for particular tasks and applications
- Recognise and apply mathematical ideas and processes in other areas of the curriculum

SCOTLAND

SOCIAL STUDIES
- I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally responsible way. SOC 2-08a

SCIENCE
- By considering examples where energy is conserved, I can identify the energy source, how it is transferred and ways of reducing wasted energy. SCN 2-04a
- Having explored the substances that make up Earth's surface, I can compare some of their characteristics and uses. SCN 2-17a

TECHNOLOGIES
- I can analyse how lifestyles can impact on the environment and Earth's resources and can make suggestions about how to live in a more sustainable way. TCH 2-06a
- I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a

NUMERACY AND MATHEMATICS
- Having determined which calculations are needed, I can solve problems involving whole numbers using a range of methods, sharing my approaches and solutions with others. MNU 2-03a

EXPRESSIVE ARTS (ART AND DESIGN)
- Inspired by a range of stimuli, I can express and communicate my ideas, thoughts and feelings through activities within art and design. EXA 2-05a

alupro

CURRICULUM LINKS

WALES

PERSONAL AND SOCIAL EDUCATION

- How the environment can be affected by the decisions we make individually and collectively
- That local actions have global effects because of connections between places and people

SCIENCE

- How humans affect the local environment, e.g. litter, water pollution, noise pollution
- The properties of materials relating to their uses
- A consideration of what waste is and what happens to local waste that can be recycled and that which cannot be recycled

ART & DESIGN

- Design and make two dimensional images using a range of various materials for a variety of purposes e.g. use a range of media to make a two or three dimensional representation based on a poem or story

MATHS

- Select and use the appropriate mathematics, materials, units of measure and resources to solve problems in a variety of contexts
- Read information from charts, diagrams, graphs and texts

NORTHERN IRELAND

PERSONAL DEVELOPMENT AND MUTUAL UNDERSTANDING

- Playing an active and meaningful part in the life of the community and being concerned about the wider environment

THE WORLD AROUND US

- The effect of people on the natural and built environment over time

ART AND DESIGN

- Use a range of media, materials, tools and processes such as: drawing, painting, printmaking, malleable materials, textiles and three-dimensional construction, selecting which is appropriate in order to realise personal ideas and intentions

MATHEMATICS AND NUMERACY

- Interpret situations mathematically using appropriate symbols or diagrams, develop a range of strategies for problem solving, looking for ways to overcome difficulties