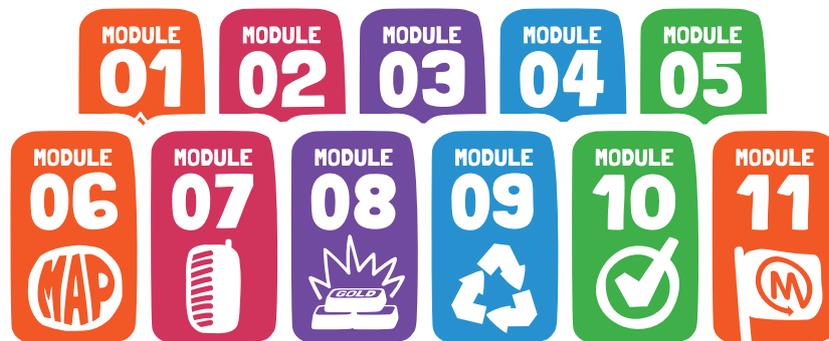


# TEACHERS GUIDE



For more information and resources visit:  
[WWW.MOBILEMUSTER.COM.AU/SCHOOLS](http://WWW.MOBILEMUSTER.COM.AU/SCHOOLS)

MobileMuster is the official product stewardship program of the mobile phone industry.

## INTRODUCTION

Education plays a critical role in shaping young people's understanding of sustainability and their role in shaping a sustainable future for our planet. The Australian education system has identified sustainability as a cross curriculum priority. It is believed that this priority will encourage students to develop the knowledge, skills, values and world views which are required to live in a sustainable society.

MobileMuster has created the online [MusterKids Zone](#) to provide teachers and students with practical and engaging learning resources. Teachers can use the modules to deliver a unit of work on the sustainability of mobile phones. The modules have strong links with the new national curriculum and specific modules have been developed for Preschool, Primary and Secondary students.

It is hoped that the knowledge gained through the MobileMuster learning modules will increase student's knowledge, engagement, critical thinking and commitment to living in a sustainable society. Schools can participate in their own MobileMuster event which will demonstrate their commitment to individual and community action for sustainability.

### ABOUT MOBILEMUSTER



Australian  
Mobile Telecommunications  
Association

MobileMuster is a voluntary product stewardship initiative of the Australian Mobile Telecommunications Association (AMTA). AMTA manages MobileMuster on behalf of its members who voluntarily fund the program. It accepts all types and brands of mobile phones, batteries, chargers and accessories for recycling free of charge. All mobiles and accessories collected are dismantled and separated, with more than 93% of the materials in the phone being recovered. All of the mobile phones and accessories are recycled, rather than refurbished for reuse.

MobileMuster is committed to engaging and educating Australia's youth. The MobileMuster learning modules gives teachers the opportunity to bring environmental and sustainability education programs to life for their students, teaching them about the environmental impact of mobile phones throughout the product life-cycle.



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## HOW TO USE THIS GUIDE

The MobileMuster learning modules provide an engaging case study on the sustainability of mobile phones. The learning modules are cross-disciplinary and can be used by teachers to achieve national learning outcomes throughout the curriculum and cross-curriculum priority of sustainability.



These modules cover the life cycle of mobile phones and look at issues relating to the materials used in mobile phones, problems associated with re-use and systems for managing and recycling mobile phone waste. Modules can be taught separately or as a whole unit of work. Undertaking the MobileMuster event is not mandatory but will provide students with an opportunity to put into action the culmination of knowledge, skills, understanding and values developed throughout the previous modules.



The modules have been developed for use in preschool, primary and lower secondary school. They are designed to be flexible and teachers are encouraged to adapt the modules to suit their own classrooms and present the concepts according to their classroom abilities and personal learning style. The target year level has been indicated on each module as some modules are more suitable for older or younger students.



Each module includes a lesson objective, relevant Australian Curriculum links, suggested resources, support material and extension activities. The modules are supported by MobileMuster Kid Zone which provides a suite of online resources including games, videos, fact sheets and printable worksheets for students and teachers. Kid Zone can be accessed via the MobileMuster website.

The modules cater for a range of student learning with a focus on interactive content which seeks to develop student Information and Communication Technology (ICT) capability. They encourage students to use ICT effectively as they access information, create ideas and solve problems in the classroom.

The MobileMuster Modules have a strong focus on collaborative learning. Most of the modules engage students in collaborative learning through facilitated discussions, information sharing amongst small groups of students, debating and organising a MobileMuster event. Collaborative learning is a good strategy to use when educating for sustainability. Collaborative learning strengthens ownership of an environmental problem and a commitment to action.

## EDUCATION FOR SUSTAINABILITY

The MobileMuster modules have been developed with a strong focus on education for sustainability. This educational approach goes beyond just imparting knowledge about sustainability but builds on an individual's capacity for transformational change. In line with the Australian National Curriculum this approach is futures-oriented, with a focus on achieving environmental outcomes through informed action.

Each module has been designed to build upon the students understanding of a sustainability issue. Throughout the modules students will be required to develop a number of skills, including envisioning, systems thinking and critical thinking as they look at the sustainability of mobile phones throughout their lifecycle. Embedded in the Australian national curriculum is the principle that sustainability is not simply about the acquisition of knowledge or skills, but an approach which imparts motivation and commitment to take action.

These learning modules will take students on a journey which leads them to take action through participation in the MobileMuster at their school or through the MobileMuster program. It will provide them with the information and motivation to inform their community about MobileMuster. It will also encourage students to take their knowledge with them as they become active users of mobile phones and have to make decision about their use, reuse and recycling in the future.

**The diagram to the right shows the application of the MobileMuster modules to education for sustainability principles.**





## ENVISIONING

Envisioning a better future (or Futures Thinking) creates a link between where we are now and where we want to be in the future, so we can plan a series of steps to get us there. Futures' thinking is one of the key concepts of the sustainability priority in the national curriculum. The futures concept is aimed at building student capabilities for thinking and acting in ways that are needed to create a more sustainable future.

## SYSTEMS THINKING

Systems thinking can help us to understand the big picture we are working within, and to create solutions that go beyond just addressing the isolated symptoms of a larger problem. The Australian National Curriculum has identified systems thinking as one of the key concepts for developing the knowledge, understanding and skills required in the area of sustainability. The MobileMuster modules take a systems approach to exploring the mobile phone life cycle. They encourage students to look at the interdependence and dynamic social, economic and environmental factors that influence mobile phone sustainability.



## **CRITICAL THINKING**

Critical thinking and reflection challenges us to examine and question the underlying assumptions that affect the way we interpret the world. The Australian National Curriculum believes that developing reflective thinking processes amongst students will assist in the development of knowledge, understanding and skills which will lead to a more equitable, respectful and sustainable future. The MobileMuster modules encourage students to think critically about mobile phone design, re-use and recycling.



## **INFORMED ACTION**

Informed action empowers individuals by directly involving them in the decision-making process. Engaging people in decision-making creates a greater sense of ownership, empowerment and commitment, both of which mean they are more likely to take action. The MobileMuster modules work towards students organising and participating in their own MobileMuster. It encourages students to take responsibility and encourage the wider community to take action.



## LINKS TO THE AUSTRALIAN CURRICULUM

All modules align with the cross-curriculum priority of Sustainability.

Module	Title & Description	Learning Areas	General capabilities in the Australian Curriculum	Year Level
	<b>Picturing a Sustainable World</b> Students develop early literacy and sustainability skills through reading.	English	Literacy	PRE P-2
	<b>History of Mobile Phones</b> Students critically explore the impact of mobile phones on society.	History	Critical and creative thinking Ethical understanding	P-2 3-6 7-10
	<b>Phone Maths</b> Students record, graph and analyse data on mobile phone usage.	Maths	Numeracy Critical and creative thinking ITC competence	3-6
	<b>How are phones made?</b> Students investigate the resources used to make mobile phones.	Science The Arts	Critical and creative thinking Ethical understanding ITC competence	3-6 7-10
	<b>What's In A Phone</b> Students apply their understanding of what materials are in a mobile phone.	Science Maths	Numeracy	P-2 3-6 7-10

Module	Title & Description	Learning Areas	General capabilities in the Australian Curriculum	Year level
	<b>Map Your Mobile</b> Students map the location of resources that go into a mobile phone.	Geography	Intercultural understanding Ethical understanding	5-6 7-10
	<b>The Mobile Reuse Debate</b> Students examine the complex issue of mobile phone reuse and the exportation of phones to developing countries.	Geography	Critical and creative thinking Ethical understanding Intercultural understanding	7-10
	<b>From Waste to Resource</b> Students explore mobile phones recycling statistics.	Maths	Numeracy Critical and creative thinking	P-2 3-6
	<b>Recycling mobile phones</b> Students identify the benefits of recycling mobile phones.	English The Arts	Critical and creative thinking ITC competence	P-2 3-6 7-10
	<b>Product Stewardship</b> Students research the concept of product stewardship.	Geography	Critical and creative thinking ITC competence	3-6 7-10
	<b>How to run a MobileMuster</b> Students develop, run and review a mobile muster recycling event. They put their sustainability knowledge into action.	English	Literacy Critical and creative thinking Personal and social competence	P-2 3-6 7-10



The MobileMuster modules support learning outcomes in a variety of key learning areas and general capabilities within the Australian curriculum. The modules make particular reference to the cross curriculum priority of sustainability. Mobile phone recycling is an issue that provides a context to view and analyse sustainability using various organising ideas outlined in the national curriculum, including:

- Systems OI.3: Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.
- Worldview OI.5: World views are formed by experiences at personal, local, national and global levels, and are linked to individual and community actions for sustainability.
- Futures OI.6: The sustainability of ecological, social and economic systems is achieved through informed individual and community action that values local and global equity and fairness across generations into the future.

## **ENGLISH**

The modules provide students with a range of texts and sources to shape their decision making in relation to mobile phone recycling. The activities will develop their abilities in listening, speaking, reading, viewing and writing. They will assist students to develop the skills necessary to communicate ideas and information related to sustainability and create texts that inform and persuade the community to take action.

## **MATHS**

Throughout the modules, students engage in a range of activities including graphs, statistics and probability. The modules present opportunities for students to demonstrate their problem solving and reasoning skills which are essential for the exploration of sustainability issues and their solutions.



## **SCIENCE**

The modules give students the opportunity to interpret, analyse and represent information using maps, statistical data, diagrams and graphs. Students will be able to explore cause and effect and develop observation and analytical skills to examine sustainability issues. Students are encouraged to explain observations; describe possible consequences of particular actions; and consider possible alternatives.

## **HISTORY**

The modules will assist students to develop an historical perspective on the use of mobile phones and sustainability. They will provide them with a context to look at the changes of technology and the environment to inform their decision making process about sustainability.

## **GEOGRAPHY**

The modules provide students with an explicit opportunity to investigate the sustainability of mobile phones as related to geographical issues. A number of the modules will ask students to investigate the sustainability of the mobile phone life cycle using their economic, social and environmental criteria.

Curriculum links to other subjects, such as The Arts and Technologies, will be updated when the relevant National Curriculum has been developed and published.