Background Information for Teachers for Down to Earth Activity Sheets

The Minerals Council of Australia has produced Down to Earth as a series of interactive educational resources for students. There are four learning objects in the series:

- **Metals Matter**
- **Palaeotraveller**
- **Rock back in Time**
- **Undercover**

The student worksheets for Metals Matter **(MM)**, Rock Back in Time **(RBT)** and Palaeotravller **(P)** address the following VELS standards:

STRAND	DOMAIN	DIMENSION	STANDARD
Physical, Personal and Social Learning	Interpersonal Development	Managing personal learning	Students complete short, extended and group tasks within set timeframes, prioritising their available time. **MM, P, RBT**
Physical, Personal and Social Learning	Civics and citizenship	Community engagement	Students present points of views on issues using appropriate supporting evidence. **MM**
Interdisciplinary learning	Communication	Presenting	Students use communication conventions, forms and language appropriate to the subject to convey a clear message. **MM, P, RBT**
Interdisciplinary learning	ICT	ICT for communicating	Students select the most appropriate search engines to locate information on websites. **MM, P, RBT**

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STRAND	DOMAIN	DIMENSION	STANDARD
Interdisciplinary learning	Thinking processes	Reasoning, processing and inquiry	Students use a range of question types and locate and select relevant information from various sources when undertaking investigations. **MM, P, RBT** Students use a range of discipline-based methodologies. **MM, P, RBT** Students complete activities focussing on problem-solving and decision-making which involve increasing numbers of variables and solutions. **MM**
Interdisciplinary learning	Thinking processes	Reflection, evaluation and metacognition	Students use specific language to describe their thinking and reflect on their thinking processes during their investigations. **MM, P, RBT** Students modify and evaluate their thinking strategies. **MM**

STRAND	DOMAIN	DIMENSION	STANDARD
Discipline-based learning	SCIENCE	LEVEL 5 Science knowledge and understanding	Students explain relationships, past and present, in living and non-living ecosystems. **RBT, P** Students use time scales to explain the changing Earth. **RBT, P** Students use physical and theoretical models to investigate geological processes. **MM, RBT, P**
Discipline-based learning	SCIENCE	LEVEL 5 Science at work	Students make systematic observations and record interpreted data according to the aims of the study. **MM, RBT, P** Students make and use models from computer software to interpret and explain observations. **MM, RBT, P** Students use simulations to predict the effect of changes in an ecosystem. **RBT, P**

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Discipline-based learning	SCIENCE	LEVEL 6 Science knowledge and understanding	Students use the periodic table to write electronic configurations for a range of elements. **MM** Students apply concepts of geologic time to elaborate their explanations of natural selection and evolution. **RBT, P.**
Discipline-based learning	Economics	Economic knowledge and understanding	Students make informed economic and consumer decisions. **MM**
Discipline-based learning	Economics	Economic reasoning and interpretation	Students use the inquiry process to plan economic investigation, analyse and interpret data and form conclusions supported by evidence. **MM**
Discipline-based learning	Geography	Geographic knowledge and understanding	Students demonstrate an understanding of environmental issues based on inquiry and propose ways of ensuring the sustainability of resources. **MM**