

METALS MATTER- WORKSHEET 2 –COMMODITY CALCULATOR

Student name:

Class:

Date:

Insert the Down to Earth disc in the CD Rom.

Click on Metals Matter.

Click on the Commodity Calculator.

Click on the mobile phone.

1. List five metals used in making a mobile phone in order of percentage.

2. Enter the number of students in your class in “**number of objects**”.

Amount of metals required for students in my class to each have a mobile phone.

aluminium	
copper	
iron	
nickel	
tin	

Click on the world map to highlight Australia.

Click on 10-19 yr old and 2010.

How much of each metal will be required if all students aged 10-19 years had a mobile phone in 2010? Write your answers below

Australia 2010: - Amount of metals required for all students aged 10-19 yrs to have a mobile phone.

aluminium	
copper	
iron	
nickel	
tin	

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3. Repeat the calculations for North America and China

North America 2010 - Amount of metals required for all students aged 10-19 yrs to have a mobile phone.

aluminium	
copper	
iron	
nickel	
tin	

China 2010 - Amount of metals required for all students aged 10-19 yrs to have a mobile phone.

aluminium	
copper	
iron	
nickel	
tin	

4. Which continent is predicted to use the most metal in mobile phones for 10-19 year old in 2010?

5. State 3 reasons which might explain this prediction.

6. Return to the objects page. Click on the washing machine. Complete the following. You may need to use a calculator.

The three main metal elements in a washing machine are _____, _____ and _____. The washing machine weighs 40 kg. This means that _____ kg must be aluminium (hint: 3% of 40 kg), _____ kg is copper and _____ kg is iron.



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7. Click on the world map, then highlight Australia. If every 30-39 year old in Australia has a washing machine in 2010, how many kilograms of aluminium would be needed? Show your working.

8. Imagine that the average weight of a student in your class is 50 kilograms. Using your answer for Question 7, how many students is that equivalent to? (hint: divide your answer in Qn 7 by 50)

9. Return to the objects page. Click on the bicycle. How much titanium would be needed if every student in your school had a bicycle in 2010? Show your working.

10. If the price of iron increased, which products on the Commodity Calculator would be expected to increase in price?

11. Return to the objects page. Click on any object, then click on information. Read the section on recycling metals. Make a list of the metals that can be recycled.

