

Short multiplication Worksheet

Today in maths, you are using short multiplication to solve larger equations. Short multiplication means you are multiplying by a one digit number only.

For example, if I wanted to know what 347×40 was, I could change my 40 into 4 ones by dividing by 10 first.

My equation becomes:

$$\underline{347} \times 4 \times 10$$

I will start by completing the short multiplication of the underlined section.

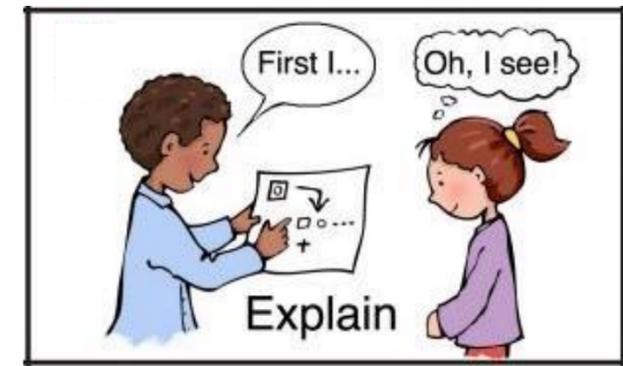
$$\begin{array}{r} 347 \\ \times 4 \\ \hline 1388 \end{array}$$

Now that I have completed the short multiplication, I need to multiply my answer by 10 to get the final sum.

$$1388 \times 10 = 13880$$



Talk Task - Formal written multiplication



1. Estimate the calculation using a mental strategy.
2. Generate a maths story so you can write a word problem appropriate to the calculation.
3. Solve the calculation using formal short multiplication.
4. If you have a partner or group, explain each stage of the formal multiplication as you go.

$$346 \times 6$$
$$832 \times 4$$
$$4326 \times 3$$



Use short multiplication to complete the calculations

Estimate first then try each of the three strategies



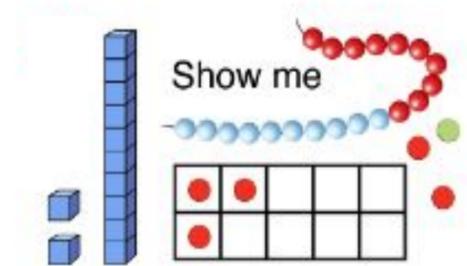
Which one do you prefer?

$$524 \times 90$$

$$1742 \times 40$$

$$2736 \times 60$$

$$3387 \times 50$$



Challenge Slide

Multiplication Master



1. Create a maths story for each calculation
2. Write a set of instructions for for someone to follow on one of the strategies shown during the lesson today

$$524 \times 90$$

$$1742 \times 40$$

$$2736 \times 60$$

$$3387 \times 50$$



Kensuke's Kingdom

By Michael Morpurgo

Inference

An inference is an educated guess or assumption based on evidence.

When answering questions it is always good to provide evidence for why you have assumed this.

e.g Sarah felt the warm wind rush through her hair as she swung her swing higher and higher towards the bright blue sky.

I can infer from this that Sarah is at a park because she is swinging on a swing.

I can also infer that it is the summertime because the wind is warm and the sky is blue.

All questions are based on chapter 3

Provide evidence for all answers.

1) Why is chapter 3 called “ships log”?

2) Was Michael excited about travelling to Brazil (pg.29)?

3) How did Stella feel about kids who came back on board for a coke (pg.30)?

4) How did Michael feel about completing his maths work in Brazil (pg.31)?

5) What did Michael mean when he said “the sea felt suddenly very empty”(pg.33)?

6) How did the family feel about spending a couple of weeks in Cape Town (pg34)?

To generate verbs and adverbs to describe a setting.

Warm up

1) Write the correct word class in the descriptions:

Adjective Noun Adverb Verb



A _____ is a PPT; a **person**, **place** or **thing**



An _____ is a **describing word**.



A _____ is a **doing** or a **being** word.



An _____ **describes a verb**.

2) Circle the verbs.

sat

amber

chaotic

motionlessly

looked

broken

scrapyard

rusty

blew

3) Choose verbs to describe this picture.

e.g the boy is searching



4) Choose some adverbs to describe how the boy is doing those verbs.

e.g. The boy is carefully searching

5) Try writing a sentence that describes what the boy is doing.

e.g. the skinny, dark haired boy curiously shuffled across the dusty floor and carefully examined the debris.

6) Fill out the blank spaces in the table below.

Adjectives	Noun	Verb	Adverb
thick, black	smoke	rose	gradually
	birds	flew	
filthy, towering		loomed	

7) Try writing your own description of the setting using adjectives, nouns, verbs and adverbs.

How does the thickness/hardness of a material change its uses?

Hardness

Materials might be chosen for their hardness. In solid materials, hardness means how resistant it is to a permanent change in shape resulting from a force. This change in shape can include deformation such as the force causing an indentation, the material becoming misshapen, and scratching. For example, because pure gold is a very soft material and can be easily bent or scratched, when making rings, it is likely that other metals have been added to the gold to improve the hardness of the rings. Very hard materials can also be very brittle, which means that they may break easily. All this must be taken into account when choosing a material. Hardness can be measured using a number of different tests and units of measurement. The hardness of different minerals is compared using the Mohs scale. Minerals with higher levels of hardness can scratch those with lower levels of hardness.

Read the text above and answer the following question.

1) What do we mean by the hardness of a solid material?

2) Why might you add extra metals to gold?

Mohs hardness	Mineral
1	Talc
2	Gypsum
3	Calcite
4	Fluorite
5	Apatite
6	Orthoclase
7	Quartz
8	Topaz
9	Corundum
10	Diamond

This table tells me that the minerals orthoclase, quartz, topaz, corundum and diamond could scratch Apatite

3) Look at the table above.

Which minerals could scratch quartz?

Which minerals could scratch corundum?

Transparency

Another property of materials is the amount of light they allow to pass through. A material which allows all light to pass through is called transparent. Materials that do not allow any light to pass through are opaque. Materials which allow only some light through, such as frosted glass, are called translucent.

4) List as many translucent materials as you can think of.

Challenge.

Answer using your new knowledge on the hardness and thickness of the materials.



Revisit this picture.

What materials are the objects made from?

Why do you think those materials have been chosen?

All about me

Likes	Dislikes
What makes me different?	How do I celebrate my differences?

Your Task: Draw a picture of your face. Colour half in with normal colours to make it look realistic. On the other half, colour it with as many crazy colours and shapes as you can. Finally, write everything you wrote above around your super cool self-portrait.