

מפתח תשובות לשאלות לדוגמא

ומחווה לשאלות הפתוחות

מחקר TIMSS

מדעים (אנגלית)

שוחרר לפרסום לאחר מחקר טימס 2015

Scoring Key

Item ID	Block	Block Seq	Topic Area	Cognitive Domain	Key
S052003	S06	01	Life Cycles, Reproduction, and Heredity	Knowing	B
S052071	S06	02	Characteristics and Life Processes of Organisms	Applying	C
S052246	S06	03	Diversity, Adaptation, and Natural Selection	Applying	A
S052276	S06	04	Human Health	Knowing	D
S052303A	S06	05A	Ecosystems	Applying	B
S052303B	S06	05B	Ecosystems	Reasoning	see below
S052125	S06	06	Characteristics and Life Processes of Organisms	Applying	D
S052145	S06	07	Properties of Matter	Reasoning	see below
S052049	S06	08	Properties of Matter	Applying	see below
S052063	S06	09	Chemical Change	Knowing	C
S052192	S06	10	Light and Sound	Reasoning	A
S052232	S06	11	Forces and Motion	Reasoning	D
S052141	S06	12	Forces and Motion	Applying	see below
S052096	S06	13	Earth's Resources, Their Use and Conservation	Knowing	A
S052116	S06	14	Earth's Structure and Physical Features	Reasoning	see below
S052110	S06	15	Earth in the Solar System and the Universe	Applying	see below

See Next Page for Scoring Guide

Code	Response	Item: S052303B
	Correct Response	
10	<p>Decrease with an explanation that the fish eat the mosquito larvae (or eggs) so there are fewer larvae to develop into mosquitoes.</p> <p><i>Examples:</i></p> <p><i>Decrease – the more fish there are, the more mosquito larvae will be eaten causing the number of adult mosquitoes to decrease.</i></p> <p><i>Decrease – more mosquito larvae would be eaten.</i></p>	
	Incorrect Response	
79	<p>Incorrect (including crossed out, erased, stray marks, illegible, or off task), including the following response:</p> <ul style="list-style-type: none"> • Decrease with an explanation referring to fish eating (adult) mosquitoes 	
	Nonresponse	
99	Blank	

Code	Response	Item: S052145
	Correct Response	
10	Completes all three as shown. Water: <u>Gas</u> Mercury: <u>Liquid</u> Iron: <u>Solid</u>	
	Incorrect Response	
79	Incorrect (including crossed out, erased, stray marks, illegible, or off task)	
	Nonresponse	
99	Blank	

Code	Response	Item: S052049
	Correct Response	
20	<p>Refers to both methods described below.</p> <ul style="list-style-type: none"> Method 1 will work because iron is magnetic (and copper is not) Method 2 will not work because iron and copper are insoluble and/or the metals will not go through the filter <p><i>Examples:</i></p> <p>1. Method 1 will work because iron is attracted by a magnet and copper is not.</p> <p>2. Method 2 will <u>not</u> work because neither iron nor copper will dissolve in water, so both will remain in the filter paper.</p>	
	Partially Correct Response	
10	<p>Method 1 with an explanation that addresses <u>either</u> the magnetic method <u>or</u> the filtration method correctly.</p> <p><i>Examples:</i></p> <p>1. Method 1 will work because the iron is magnetic. [Correct]</p> <p>2. Method 2 will <u>not</u> work because they will sink in the water. [Incorrect]</p> <p>1. Method 1 will work because the copper is not magnetic. [Correct]</p> <p>2. Method 2 will <u>not</u> work because they are the same size and will not filter. [Incorrect]</p> <p>1. Method 1 will work because one of the metals is magnetic. [Incorrect]</p> <p>2. Method 2 will <u>not</u> work because copper and iron will not go through the filter. [Correct]</p>	
	Incorrect Response	
79	Incorrect (including crossed out, erased, stray marks, illegible, or off task)	
	Nonresponse	
99	Blank	

Code	Response	Item: S052141
	Correct Response	
10	<p>Position B with an explanation relating to the same weight spread over a smaller surface area.</p> <p><i>Examples:</i></p> <p><i>Position B – as the surface area is small, the weight is being concentrated on it.</i></p> <p><i>Position B – because the weight is in a smaller place.</i></p> <p><i>Position B – the smaller the surface area, the greater the pressure.</i></p> <p><i>Position B – less area is touching the ground, hence the pressure will be more.</i></p> <p><i>Position B – as the surface area is small.</i></p>	
	Incorrect Response	
79	Incorrect (including crossed out, erased, stray marks, illegible, or off task)	
	Nonresponse	
99	Blank	

Code	Response	Item: S052116
	Correct Response	
20	<p>Identifies any two advantages from the list of acceptable responses below.</p> <ul style="list-style-type: none"> • Long roots can reach more nutrients (minerals). • Long roots can reach water (when topsoil is dry or frozen). • Long roots can anchor the plant better. <p><i>Examples:</i></p> <ol style="list-style-type: none"> 1. They can reach deep underground water. 2. They are not easily blown over by strong winds. <ol style="list-style-type: none"> 1. Will get more water. 2. Will make the hold stronger in the ground. <ol style="list-style-type: none"> 1. So that in time of drought they can reach the subsoil water. 2. The plant will be able to receive more nutrients that are hidden in the subsoil. <ol style="list-style-type: none"> 1. More soil nutrients can be reached. 2. It holds the stem of the tree firmly. 	
	Partially Correct Response	
10	Identifies one acceptable advantage only. The second advantage may be incorrect or missing.	
	Incorrect Response	
79	Incorrect (including crossed out, erased, stray marks, illegible, or off task)	
	Nonresponse	
99	Blank	

Code	Response	Item: S052110
	Correct Response	
10	<p>Yes with an explanation about the moon having less gravity.</p> <p><i>Examples:</i></p> <p><i>Yes – The moon has less gravitational pull than Earth.</i></p> <p><i>Yes – There is less gravity on the moon.</i></p> <p><i>Yes – There is more gravity on Earth.</i></p>	
	Incorrect Response	
79	<p>Incorrect (including crossed out, erased, stray marks, illegible, or off task), including the following responses:</p> <ul style="list-style-type: none"> • Yes with an explanation that there is no gravity on the Moon • No with an explanation that he will weigh the same on Earth and the Moon, but there is less gravity on the Moon 	
	Nonresponse	
99	Blank	