2018 STAAR Grade 8 Science Rationales
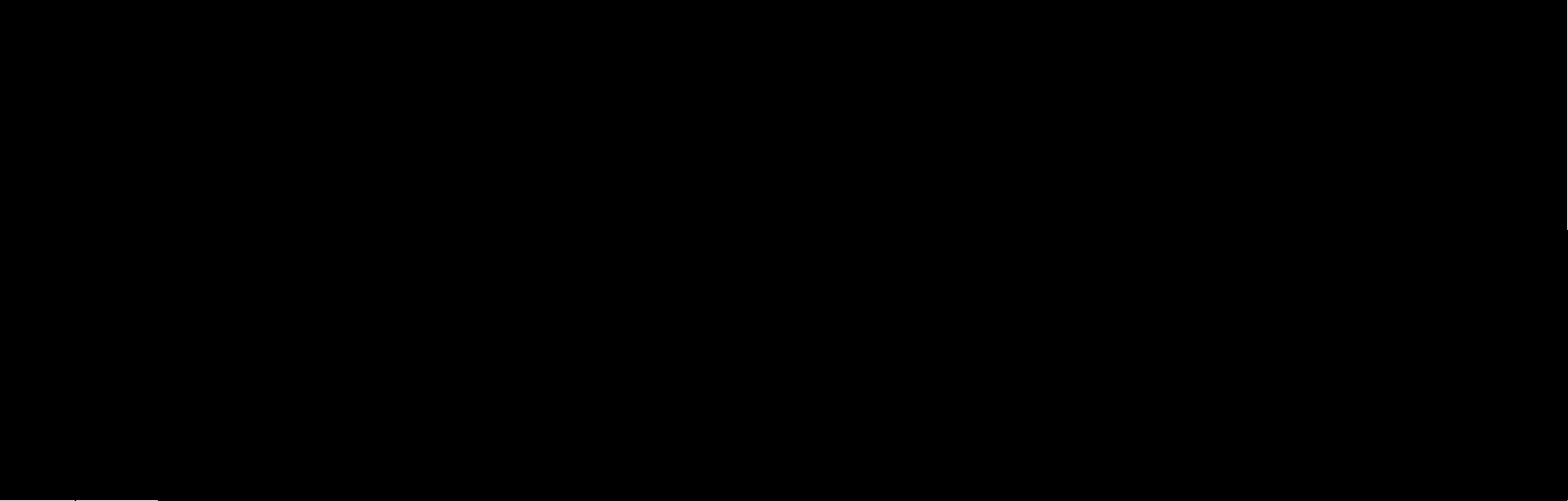
Item #		Rationales
6	Option G is correct	The correct answer was obtained by using the formula *Force* = *mass* × *acceleration* to determine the net force acting on the vehicle. 1,100 kilograms × – 1.2 m/s^2 = 1,300 N
	Option F is incorrect	This answer was obtained by adding instead of multiplying. *Force= mass+ acceleration* was used instead of *Force= mass acceleration*.
	Option H is incorrect	This answer was obtained by dividing instead of multiplying. *Force= mass / acceleration* was used instead of *Force = mass × acceleration*.
	Option J is incorrect	

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12	Option H is correct	Converging plates can lead to uplift and the steep slopes of a mountain range.

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Item #	
18	Option J is correct

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38	Option F is correct	Larger grains were preferred to provide more food per plant for humans.
	Option G is incorrect	Taller stems to block sunlight would not benefit farmers by providing more food.
	Option H is incorrect	Larger flowers were not preferred over larger grains. Farmers did not sell flowers.
	Option J is incorrect	Thinner stems were not preferred for human consumption.
39	Option C is correct	Energy is transferred from the level below to the level above.
	Option A is incorrect	Energy is transferred from the level below to the level above.
	Option B is incorrect	Energy lost at any level does not continue to flow through the energy pyramid.