

STAAR Spring 2024 Grade 8 Science Rationales

Item Position	Rationale	
	<p>2SWL8QV FRUUHFW</p>	<p>0LFH DQG %HHWOHV DUH WKH SU EHFDXVH WKH\ HDW\ FRQVXPHUV FRQVXPHUV HDW SULPDU\ FRQVXPHUV 7 EDWV RZOV UDFRFRQV DQG GUDJRQIO SULPDU\ FRQVXPHUV</p>
	<p>2SWL8QV LQFRUUHF</p>	<p>2WKHU WKDQ PLFH DQG EHHWOH RUJDQLVW WKH IRRG ZHE %XW JUDVVHV HDW SULPDU\ FRQVXPHUV</p>
	<p>2SWL8QV LQFRUUHF</p>	<p>7KHUH DUH VHYP RUJDQLVW D WKH IRRG ZHE EXW WKLV LV QRW WKH G RUJDQLVPV</p>

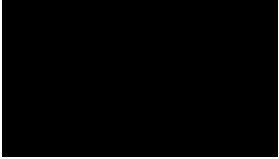
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Item Position	Rationale
	2 S W L R Q % F R U U H F W

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Item Position	Rationale
2SWLRQ \$ FRUUHFW	\$FFRUGLQJ WR 1HZWRQTV WKLUC REMHFW H[HUWV D IRUFH RQ D VHFRQG VHFRQG REMHFW ZLOO H[HUW DQ HTXDO IRUFH RQ WKH ILUVW REMHFW
2SWLRQ % LQFRUUHF	7KH DPRXQW RI IRUFH WKH IORR W@SWLRQ&WR QRW JUHDWHU WKDQ WKH IRUFH WKH EDOO H[HUWV RQ WK
2SWLRQ & LQFRUUHF	7KHJURPIORRUSXKQJXSRRQWKH EDOO WIUDYWWSSXQQQJGGRQRQWKHEDDOGB

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Item Position	Rationale	
	2 SWL% QV FRUUHFW	% UHDNLQJ DQ HJJ GRHV QRW FK FKHPLSDQ SHUWLHV RIKW KHH IRLJWH LV D SK\VLFDQ FDKQJH
		

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Item Position	Rationale	
	SWV	3URWRQ FKDUJH DQG ORFDWLRQ 1HXWURQ FKDUJH DQG ORFDWLRQ (OHFWURQ FKDUJH DQG ORFDWLRQ
	SW	7KH VWXGHQW DQVZHUV KDOI RI V FRUUHFWO\
	SW	7KH UHVSRQVH LV LQFRUWHQ

1 XFC

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Item Position	Rationale
2SWLRQ % FRUUHFW	:KHQ YLHZHG IURP (DUWK WKH EH D ZDQLQJ FUHVHQW PRRQ ZKHQ LW 3RVLWLRLY LV EHFDXVH WKH GDUN SRU WKH PRRQ LV JHWV DQJRODUJHU W DPRXQW RI OLJKW FDQ EHWWHG HRRI WKH WKH PRRQ
2SWLRQ \$ LQFRUUHF	:KHQ LW BRVLQVLRQK:H PRRQ DSS WEHD ZDQLQJ FUHVHQW LV LV EHFDXVH IURP (DUWKIV SHWKSHPFRVW GDUN ZLWK D VPDOO DPRXQW RI OLJKW VLGDIQWKDWJKW SRUWHVWLQJ ODUJHU HDFK GD\
2SWLRQ & LQFRUUHF WKG	:KHQ LW BRVLQVLRQK:H PRRQ DSSH WEH DZQLQJ JLEERXVKLVRQV EHFDXVH IURP (DUWKIV SHWKSHPFRVW O\ OLW RSEBWBIB @UMBD FBY, HUH S" A y (lpky (W PL B)D GHFUHDVLQ
2SWLRQ & L	

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Item Position	Rationale
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Item	Rationale
[REDACTED]	2 S W L' R Q V F R U U H F W

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Item Position	Rationale	
	2SWLRQ & FRUUHFW	2UJDQLVPV LQ .LQJGRP \$QLPDOL PXOWLFHDOXOWHURWURSKLFD DQG KDYH QXFOHXV
	2SWLRQ \$ LQFRUUHF	2UJDQLVPV LQ .LQJGRP %DFWHDU QXFOHXV
	2SWLRQ % LQFRUUHF)XQJL DUHDXWRWURSKLF
	2SWLRQ ' L LQFRUUHF	2UJDQLVPV LQ .LQJGRP \$UFKDH PXOWLFHOOXODU

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Item Position	Rationale	
	2 SWLRQ \$ FRUUHFW	3 ODQWV FRQYHUV OLJKW HQUHJ IRU SODQW JURZWK
	2 SWLRQ % LQFRUUHF	3 ODQWV FRQYHUV WKHUPDO HQUHJ\
	2 SWLRQ & LQFRUUHF	3 ODQWV FRQYHUV WKHUPDO PHFKDQLFDO HQUHJ\
	2 SWLRQ ' L LQFRUUHF	3 ODQWV FRQYHUV OLJKW HQUHJ HOHFWULFDO HQUHJ\

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Item Position	Rationale
2 SWL 8 QV	(OHPHQZWK WKH VDPH QXPEHU I FRUUHFW HOHFWDUREQ/ WKH VDPH DUREQ SYH D

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Item Position	Rationale
2SWLRQ % FRUUHFW	6LPLODU IRVVLOV QDYU DHU LPRXQ/GPRC FRQWLQH QLVVVKRZV WKDW WKH FRQWLQH ZHUH PRVW OLNHO\ MRLQHG RYHU PL DJRQG VORZO\ PRYHG DSDUW
2SWLRQ \$ LQFRUUHF)RVVLOV LQ XQG RQ WKH VDPH FR QRW KHOS H[SODLQ WKH PRYHPHQW RI F FRQWLQH QW D SODLQ WKH VGLIIHUHQFH EHWZHHQ WKH IRVVLOV LV QRW
2SWLRQ & LQFRUUHF)RVVLOV LQ XQG RQ WKH VDPH FR QRW KHOS H[SODLQ WKH PRYHPHQW RI F FRQWLQH QW D SODLQ WKH VGLIIHUHQFH VDPH WLPH SHULRG GRHV QRW DFFRXQW PRYHPHQW WPXOWLSOH SODWHV
2SWLRQ ' LQFRUUHF)RVVLOV LQ WKH FLRQW DWH QRP XQLTXH

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Item Position	Rationale	
	SWV)URP WRS WR ERWWRP &RPHW 0HWHRU RU 0HWHRU 1HEXOD
	SW	7KH VWXGHQW DQVZHUV KDOI RI V FRUUHFWO\
	SW	7KH UHVSQRVH LV LQFRUUHFW RU

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Item Position	Rationale	
	2SWLRQ ' L FRUUHFW	%HFDXVH WOHVH ZDWCUPRUH VD EHLQJ DGGHG WR WKH VRLO WKH QDWLY SRSXODWLRQ ZLOO OLNHO\ GHFU
	2SWLRQ \$ LQFRUUHF	0RVW QDWLYH FRQVXPHUV GR Q WUHHMRWKH QXPEHU RI FRQVXPHUV ZLOO LQFUHDVH
	2SWLRQ % LQFRUUHF	6DOW FHGDU WUHHV XVH PRUH Z WSHFLWKHUHMRKH ZDWHU OHYHOV LQ WK ZLOO GHFUHDVH
	2SWLRQ & LQFRUUHF	6DOW FHGDU WUHHV DGG WDKAD C OHYHOV ZLOO LQFUHDVH

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Item Position	Rationale
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Item Position	Rationale	
2SWL7QV FRUUHFW		\$ QHZ PRRQ RFFXUV DSSUR[LPDV GD\ V GD\ V GLYLGHG E\ WKH QXPEHU RI LW WDNHV EHWZHHQ IXOO PRRQV GD\ WKDW QHZ PRRQV FDQ RFFXU GXULC GD\ SHUZRIBUHIRUH WKHUH DUH DERXW PRRQV WKDW FDQ RFFXU LQ C
2SWL8QV LQFRUUHF		(LJKW LV WKH QXPEHU W HQRW W QXPEHU Q RIZ PRRQV LQ D \HDU
2SWL8QV LQFRUUHF	WHDFQ	7ZHQLQH LV WKH QXPEHU W HQRW W QHZ PRRQ QRW WKH QXPEHU RI QHZ SHU \HDU
2SWL'RQV LQFRUUHF	WPRQWK	7KLURQH LVJWKH W HQRW W HQRW W QRW WKH QXPEHU RI QHZ PRRQV \HDU

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Item Position	Rationale
	2SWLRQ % 3URWRQV DQG QHXWURQVPIFVOW/bgd&...V b'€ FRUUHFW WKH DWRPLF PDVV 2SWLRQ \$ LQFRUUHF'

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Item
Position

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Item Position	Rationale	
	SWV	7KH VWXGHQW LGM QFRDGH LIWKH FKDUDFWHULVWLFV IURP WKH WRS DV WZ SULQFLSOHV RI FHOO WKHRU\
	SW	7KH VWXGHQW DQVZHUV KDOI RI V FRUUHFWO\
	SW	7KH UHVSQRVH LV LQFRUUHFW RU

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Item Position	Rationale	
2SWLRQ % FRUUHFW	2FHDQLF ULGFRQWDO RFFXU DW GLYHUJHQW SODWH ERXQGDULH 7UHQFKHV DQG YROFDQRHV RFFXU DW FRQYHUJHQW SODWH ERXQGDULH	FRQWDO ULI ERXQGDULH
2SWLRQ \$ LQFRUUHF	&RQWLQHQWDO ULIW YDOOHV D SODWH ERXQGDULHV QRW FRQYHUJHQW SOD ERXQGDULHV	SODWH ERXQGDULH
2SWLRQ & LQFRUUHF 2SWLRQ ' L LQFRUUHF	2FHDQLF ULGJHV GR QRW RFFXU SODWH ERXQGDULHV 7UHQFKHV GR QRW RFFXU DW GL WERXQGDULHV	ERXQGDULH

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Item Position	Rationale
2 SWLS QV FRUUHFW	0 H&M D&F E'i' QMFNHO DUH PDOOHDE PHWDOO VRECO DIV 0 WLR Vqva' &bl ñ&€ À

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Item Position	Rationale	
2SWL8QV FRUUHFW		7KH QXPEHU RI K\GURJHQ DWRPV UHDFWDQWV LV HTXDO WKRGWRJHQ QXPEHU DWRPV LQ WKH SURGXFWV 7KLV SURYLG WKDW WKH WRWDO PDVV LV FRQ
2SWL9QV LQFRUUHF		:KLOH WZR QHZ VXEVDQFHWKZM MGRHV QRW JLYH DQ\ LQIRUPDWLRQ DERX RI W\HRGXFWV DQG URDFWV DLP FDQ EH PDGH DERXW WKH FRQVHUYD
2SWL9QV LQFRUUHFW		:KLOH WKDWHEMQAW °\$•LV

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Item Position	Rationale
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SWV

7KH GLDJUDP VKRZV WKDW WKH 1
 6RXWKHUQ +HPLVSKHUHV H[SHULHQFH GL
 VHDVRQV DW WKH \$/DP HWUFDVRQ IRU
 WKH GLIIHUHQFHV LQ VHDVRQV EHWZHHQ
 !DLr H0H2` Ç Q W !DL(GL@p |D !DLp0WD

0 S °GLA H

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Item Position	Rationale	
2 SWLRQ & FRUUHFW	7KHJUDVVKR	B B M V H F R P S H W L Q J Z L K H U E L Y R Z R R G V D Q S D O O L Q J H G J U D V V K R S S R U E U L W W O H E X V K , W L V D O V F R P S H W L Q J F Z U W K Y R G H R Z O R U P ` "-)' U V 3 f J U D V V K R S S H U
2 SWLRQ \$	7KHJUDVVKR	B B M V H L V Q R W F R P S I F R U U H F W S U R G X F H U V I R U R U F H

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2SWL8QV FRUUHF		/RFDWLRQ P XFK KLJKHU WKDQRR WKH FDUW KDV PRUH JUDYLWDWLRQDO S HGHUJ\ DW /RFDWLRQ GRHV DW /RFDWLRQ 7KH SRWHQWLDO HGHUJ\ ORVW E\ WKH F PRYHV IURP /RFDWLRQ DWLRQ FRQYHUWHG WR NLQHWLF HGHUJ\ VR WH HGHUJ\ RI WKH FDUW RFDWLRQ DW / LW DW /RFDWLRQ
2SWL8QV LQFRUUHF		7KHUH LV PRUH SRWHQWLDO HQ W/RFDWLRQ DQG WKHUH LV OHVV QRW PRUH HGHUJ\ DW /RFDWLRQ /RFDWLRQ
2SWL8QV LQFRUUHF		7KH SRWHQWLDO HGHUJ\ WKH PRYHV IURP /RFDWLRQ DWLRQ NLQHWLF HGHUJ\ WKHUH HV WKH NLQH DQG SRWHQWLDO HGHUJ\ DWLRQ WKH VDPH DV DW /RFDWLRQ <
2SWL8QV LQFRUUHF		7KH FDUW KDV OHVV NLQHWLF R WKDQ LW KDV DW /RFDWLRQ

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Item Position	Rationale	
	2SWL&QV FRUUHFW	0DJQHVLXP K&VRWRQV
	2SWL\$QV LQFRUUHF	&DUERQ KDV SURWRQV
	2SWL%QV LQFRUUHF	&KURPLKDV SURWRQV
	2SWL'RQV LQFRUUHF	=LQF KD\$URWRQV