

Annotation Form

Anchor Set
Kentucky Science Operational
Grade 4
SC041619_06

Paper	RF Number	Score	Notes
a101	00007790218 615201706	0	<p>Anchor Paper 1 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The response does not give a specific location on the school campus (<i>The school campus</i>) and the time frame is too broad to show understanding that the strength of sunlight varies during the day (<i>during day time when the sun is out</i>). The explanation why this location would be best is too generic (<i>The location for the solar pannels should be facing in the derection of the sun. It would be best because, the sun is what makes energy</i>) and does not add understanding. The use of a light meter is not addressed.</p>
a102	00010180698 503201706	0	<p>Anchor Paper 2 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given for the panels is too vague (<i>wear the sun would be at</i>) and there are multiple times given (<i>at 9:00 a.m. at noon</i>), which is incorrect. There is also a major significant error in the explanation (<i>then the sun wouldn't give no light at noon</i>), which contradicts one of the given times. The attempt to explain the use of a light meter also contains a significant error (<i>the light is shinning from the light meter it is giving to solar panles light</i>). The light meter measures light energy, as explained in the stimulus, it does not produce light.</p> <p>Note: While the light meter is also referenced in Part A (<i>The light meter would record the highest strength of sunlight at . . .</i>), this phrase is a direct restatement of the prompt, "predict where . . . and at what time the light meter would record the highest strength of sunlight," and it does not add understanding to the response to restate it.</p>

Paper	RF Number	Score	Notes
a103	00010221588 501201706	0	<p>Anchor Paper 3 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given for the solar panels (<i>in front of their campus</i>) is considered inaccurate as the diagrams show the front of the school mostly in shadow a good portion of the day since it faces North. The explanation contradicts itself (<i>I think in the shade it will be a good idea, because if it's in the front, it will get more sunlight. I know this because if it was in the shade, it will barely get any sunlight</i>) and does not demonstrate an understanding of the science concepts involved in this question. The response does not address the time of highest strength of sunlight or the use of a light meter.</p>
a104	00007790688 615201706	1	<p>Anchor Paper 4 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The response is minimally correct, addressing only how the light meter can help you know the best location for the solar panels (<i>the light meter helps you to know . . . figure out the best Place [for] the Solar Planes so they can capture the most sunlight</i>). The location and time when there will be the most sunlight, as well as the explanation for the location, are not given.</p>

Paper	RF Number	Score	Notes
a105	00010023848 511201706	1	<p>Anchor Paper 5 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. In this response, there is a minimal understanding shown in the explanation given in Part B (<i>because there is no shade there or shadow</i>), which does explain why the locations given in Part A would be best for the solar panels. Part A provides two location-time pairs (<i>●C at 9:00 a.m.; ●B at noon</i>); however, the prompt asks students to predict where and when the “highest strength of sunlight” occurs, and providing two different locations/times demonstrates that the student does not recognize that location C at 9 am will have less solar energy than location B at noon.</p> <p>Note: Use of the letters A, B or C to indicate a location for the solar panels is acceptable, as it refers to a location shown in the stimulus diagram labeled “Top View of the School Grounds”. These locations are approximately SW, S, and SE of campus, respectively. All three areas are considered to be valid locations for the solar panel placement.</p>
a106	00010217868 501201706	1	<p>Anchor Paper 6 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given in the response (<i>the roof</i>) is a valid location, which provides a minimal understanding. However, the explanation for that location is incorrect (<i>there is nothing there to block the wind to getting to it</i>). The wind is not a factor in the amount of solar energy at any given spot. The time and the light meter are not addressed. Providing only a valid location is sufficient to show a minimal understanding of the question.</p>

Paper	RF Number	Score	Notes
a107	00007790578 615201706	2	<p>Anchor Paper 7 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The correct location (<i>Southside</i>) and time (<i>noon or 12:00</i>) are given, demonstrating a limited understanding. The explanation given for why this location is best is not correct (<i>It would be best since the sun shines the longest in the South side</i>); the duration of sunlight through the course of the day is determined by sunrise and sunset, not the location around the school. A further explanation of the benefit of the time of day chosen is provided (<i>the sun will be straight up in the air</i>) which starts to connect how the location of the sun at a certain time can maximize the strength of the sunlight, but it does not clearly tie the idea of the sunlight being directly overhead with an increased strength of sunlight. The light meter is not addressed. Overall, the valid location and time together with the explanation demonstrate a limited understanding of the question.</p>
a108	00007810378 615201706	2	<p>Anchor Paper 8 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location is given (<i>on top of the school in the middle</i>) and the explanation for why this location is chosen is correct (<i>the shadow never reaches the top of the school and it's always light up there</i>), but no time is given and the light meter is not addressed, resulting in a partially complete response that shows a limited understanding of the scientific concepts of this question.</p>

Paper	RF Number	Score	Notes
a109	00010218828 501201706	2	<p>Anchor Paper 9 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location and time are provided (<i>noon and in the middle o school campus</i>). It is assumed that "middle" references the roof of the school. An explanation of the benefit of the time of day chosen is provided (<i>would be the best for the solar panels because the sun would be all the way up in the sky. So it would be easier for the solar panels to get light</i>) which explains how the location of the sun at a noon can maximize the strength of the sunlight. There is an explanation given for how the light meter would help you find the best location (<i>If you take the light meter and use it to see where the best place is for the solar panels</i>). While this is not a strong explanation of the light meter, it does contribute to the knowledge demonstrated in the response. A limited explanation explaining why the time and location would be the best is provided (<i>you would get alot of light at noon and in the middle of campus</i>), resulting in a partially complete response. If this response had included stronger, more detailed explanations of why the location is best, or how the light meter helps to collect that information, it would have shown a more generally complete understanding.</p>

Paper	RF Number	Score	Notes
a110	00008573808 605201706	3	<p>Anchor Paper 10 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A correct location (<i>at location C</i>) and time (<i>noon</i>) are given, and those choices are supported with a generally complete explanation of why this location would be the best for the solar panels (<i>diagram it tells you what way the shadow is facing . . . location C at noon because that is where light is stronger at. You will get more sunlight for your solar power . . . At noon the sun will be at the front of the school not at the sides or back. So, C would get more light because there would not be any shadows. A and B would have shadows and C would not . . . best for the solar panels because you would have more light there</i>). The integration of the understanding of the movement of the sun creating area of light and shadows across the area helps demonstrate a complete understanding of which time and location can maximize the sunlight. The light meter is mentioned (<i>It would be best to put the light meter at location C at noon</i>), but the response lacks an explanation of how the light meter helps determine the best location.</p> <p>Note: Relative terms, such as right, left, front, back, etc. are given the benefit of the doubt in scoring, unless the student clarifies which direction is meant, since the left side of the school is the right side of the picture, and the front of the picture is to the South and the front of the school is to the North. For instance in this response, the location reference contains a minor error: the front of the school is to the north, not the south, like position C. The student's error was one of orientation, rather than a lack of scientific understanding; the rest of the response clarified the limit of the misunderstanding.</p>

Paper	RF Number	Score	Notes
a111	00009911198 505201706	3	<p>Anchor Paper 11 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location (<i>South</i>) and the time (<i>noon</i>) are correct, and those choices are supported with a generally complete explanation of why this location would be the best for the solar panels (<i>South at noon would be the best because the shadows in front of the school because the light rays are reflecting onto the back because the school blocks light out, so the solar panels would be getting the most sunlight facing South behind the school at noon</i>). The integration of an understanding of the movement of the sun creating area of light and shadows across the area strengthens the response. The light meter is not addressed, so overall this response is generally complete.</p>
a112	00087086759 801201706	3	<p>Anchor Paper 12 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location and time is given (<i>at the back of the campus at noon</i>). The explanation supports the location (<i>because there is no shade shown on their diagram</i>), but the explanation provides only a general explanation of how information from the light meter helps identify the best location (<i>The light meter helps me know that because there is a lot of sun there</i>). Details or additional elaboration on how information from the light meter is effectively used is not provided. Overall, this response is generally complete and shows a general understanding of the concepts of the question.</p>

Paper	RF Number	Score	Notes
a113	00008549778 605201706	4	<p>Anchor Paper 13 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The place (<i>B</i>) and time (<i>noon</i>) are correct with complete explanation about the strength of the sun relative to its position (<i>noon is the time the sun is at full strength. I know this because noon is when the sun is in the middle of the sky and it is very sunny outside</i>). The response provides a complete and thorough explanation of why the location is best based on other factors affected by sunlight strength (<i>This location would be the best because there is plenty of sunlight there for the plants to grow</i>) and integrates a complete explanation of the use of the light meter to know which location is best (<i>The information from the light meter helps me know that because of where the light and shade is and how far away the shade is from the place I pick</i>). A complete synthesis is provided with the understanding that the light meter measurements will be different in the sunlight and the shade and relates this understanding to the locations being chosen. Overall, this response shows a complete and thorough understanding of the science concepts being assessed by these questions.</p>
a114	00008532618 601201706	4	<p>Anchor Paper 14 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location and time are both valid and correct (<i>on the roof and at noon</i>) and a brief, but thorough explanation is provided for why this location would be the best (<i>because there would be no shadows to block the sunlight</i>) which fully integrates the use of the light meter (<i>information in the light meter helps me know that because the light meter tells me how strong the light is</i>). The response reflects a complete and thorough understanding of the science concepts with complete reasoning well integrated into the response.</p>

Paper	RF Number	Score	Notes
a115	00010015188 511201706	4	<p>Anchor Paper 15 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The locations and time are valid and correct (<i>the left and right side of the roofs</i>) and the time (<i>at noon</i>). The explanation reflects a complete synthesis of relevant concepts for why this time and location are best (<i>those two parts get the most sunlight since no shadow appears on them . . . since the sun is pointing straight down on the roof . . . The location I chose would be best because it gets the sun on the spots all day</i>) and fully integrates a complete explanation of why the information from the light meter helps to know where to locate the solar panels (<i>The information from the light meter helps my because it tells me that the sun points down on it all day . . . mass energy for the school</i>). The response wobbles by saying the light meter “produces” energy, but this is not relevant to the accuracy of the answer, and overall the response provides a complete, thorough understanding of all parts of the question.</p>

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Paper	RF Number	Score	Notes
p101	0001022120 8501201706	2	<p>Practice Set 1, Paper 1 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct time is provided (<i>noon</i>); however, the location (<i>east of the school</i>) only shows an understanding if the explanation addresses avoiding the shadows cast by the trees in that location. In this response, although the explanation does address the shadow of the school and adds some understanding to the response, it is insufficient as justification for choosing the east for the placement (<i>in the diagram it shows the school never casting a shadow to the east</i>). As the sun moves to the west, shadows would be cast by the trees on the east side of the school. The explanation of the time chosen is not specifically asked for by the prompt, but adds to the overall coherence of the explanation (<i>I chose at noon because noon is close to the middle of the day and I know the sun shines the most at the middle of the day</i>). The light meter is not addressed.</p>
p102	0000779981 8615201706	0	<p>Practice Set 1, Paper 2 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given (<i>the right</i>) is not acceptable, since the explanation for choosing the right does not address the impact of the trees shown on the right side of the school and provides an incorrect explanation (<i>that is where the sun is most of the time</i>). Because of the earth's movement, the sun does not remain in one position relative to the earth's surface. No time is given and while there is an attempt to explain how the light meter helps, it only gives an incorrect location and does not contribute any understanding. The response is entirely incorrect and irrelevant, with no evidence provided to show understanding of the science concepts of this question.</p>

Paper	RF Number	Score	Notes
p103	0001039305 8515201706	4	<p>Practice Set 1, Paper 3 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. Initially, two locations are given (<i>it will probably be on west or south side</i>). However, the student then corrects this to state that there are trees on the west and that the south would be best (<i>it will probably record on the south side the best</i>) and maintains this as the location throughout the remainder of the response. This is acceptable for the location. The time is also correct (<i>noon</i>). The explanation for choosing the south shows a complete synthesis of the information given in the stimulus (<i>it is a very wide space with very little shadow</i>) and the use of the light meter is explained (<i>the light meter . . . reads and gives me the record and that shows me the best place</i>).</p>
p104	0000780618 8615201706	2	<p>Practice Set 1, Paper 4 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location and time is given (<i>12:00 Am . . . on top of the school</i>), with a minor flaw in indicating the time as a.m. versus p.m. From the explanation given (<i>when the sun is the strongest</i>), it is clear the student means noon. The student partially explains why the time and location would be the best (<i>Because 12:00 is when the sun is the strongest in the summer . . . get more energy Because of the time and place</i>), but reasoning for the location chosen and use of the light meter are not addressed, and so the explanation is partially complete.</p>

Paper	RF Number	Score	Notes
p105	0008720010 9807201706	3	<p>Practice Set 1, Paper 5 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location (<i>on top the school</i>) and time (<i>at noon</i>) are both correct. The reasoning given is focused on the time, rather than the placement (<i>the highest strenth of sunlight would be at noon because the sun is above the school, so the solar panels would collect the most light at that time of the day</i>). The use of the light meter is also appropriately addressed (<i>the information from the light meter helps me know that because at that time of day the light meter would go up the highest throughout the day</i>). However, an explanation for the placement location, such as the lack of shadows at that spot, is missing.</p>
p106	0000780646 8615201706	0	<p>Practice Set 1, Paper 6 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given (<i>west</i>) is incorrect without an explanation that specifically addresses avoiding the trees in that location. Not only does the explanation not address avoiding the shade, it is incorrect (<i>because there was less shade on that side</i>). The time and the light meter are not addressed.</p>
p107	0009823667 8209201706	0	<p>Practice Set 1, Paper 7 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. This response gives a vague general location (<i>The highest strength of sunlight would be around the school</i>) and then a more specific, but incorrect location, for the highest strength of sunlight (<i>The best place for the solar panels would be on the west side of the school</i>). The reasoning given for this placement is also incorrect (<i>it shows the best sunlight</i>). No time is given and the light meter is not addressed.</p>

Paper	RF Number	Score	Notes
p108	0000779907 8615201706	3	<p>Practice Set 1, Paper 8 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location (<i>south of the school</i>) and the time (<i>noon</i>) are both correct. Additionally, the reasoning for the location is valid (<i>the sun will be shining directly on it and there will be no trees in the way</i>). The light meter is not addressed. Although concise, overall, the response is generally correct.</p>
p109	0009789173 8101201706	4	<p>Practice Set 1, Paper 9 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given (<i>on top of the school campus</i>) is considered to mean the roof and is correct. The time given (<i>in the middle of the day</i>) is believed to mean when the sun is directly overhead and is also considered correct. The explanation for that location (<i>there would be nothing blocking the sun light from the solar panels</i>) provides a complete, thorough understanding of why this location would be best. Lastly, the explanation for the light meter is correct and complete (<i>it would say that there is a lot of sunlight reaching the solar panels</i>). Cumulatively, this is a complete and correct response that shows a thorough understanding of the concepts of the question.</p>
p110	0000780275 8615201706	1	<p>Practice Set 1, Paper 10 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The response gives a correct location (<i>The highest place would be C</i>), which provides a minimal understanding. Two possible times are given (<i>in the morning . . . It is the best place for afternoon</i>), neither of which are optimal times for the most sunlight. The explanation for the location chosen is minimal, just explaining multiple times that the location gets a lot of sun (<i>C in the morning because it get's lot's of sun . . . I looked at the model C had more sun . . . I believe C has lots of sun . . . so place it in C has lot's of sun</i>), but no reasoning for is given for why the location is best. The light meter is not mentioned.</p>

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p201	0008710281 9801201706	3	<p>Practice Set 2, Paper 1 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location and time is provided with a brief explanation (<i>the roof close to the back of the school . . . noon . . . would be the best spot because the sun shines in on the back of the school</i>). The explanation of how the light meter helps determine the best location is generally complete (<i>the light meter helps me because it shows how much light the schools getting for energy</i>). The coherent explanation of the use of the light meter helps move this response into demonstrating a more general understanding.</p>
p202	0000780071 8615201706	1	<p>Practice Set 2, Paper 2 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given is correct (<i>the Back of the School</i>). However, the afternoon time given (<i>3:00</i>) is incorrect and the reason for choosing the back of the school is not meaningful, since it applies to everywhere, not only the selected location at 3:00 pm (<i>If the sun is shining down behind the school then it is going to get sun light</i>). The information given for use of the light meter is incorrect (<i>the light meter shows that you can rotate it</i>). Cumulatively, this response is minimally correct, because it provides a correct location.</p>

Paper	RF Number	Score	Notes
p203	0000780135 8615201706	0	<p>Practice Set 2, Paper 3 Score Point 0</p> <p>There is no evidence that the student has an understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location given (<i>beside the school campus</i>) is not supported, since the explanation does not address the shadows of the trees which are present on both sides of the school at most times during the day. The time given is incorrect (<i>10:00 am</i>). The explanation for why the location of placing the solar panels beside the school shows no correct synthesis of the material in the diagrams in the stimulus (<i>there is more room and sun shines on the sides of buildings most of the time</i>) and the light meter is not addressed. This response provides no correct evidence or understanding of the science concepts of the question.</p>
p204	0000809416 8611201706	4	<p>Practice Set 2, Paper 4 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The location (<i>on the far east side were the big field is with no trees</i>) and explanation (<i>because there are no trees to get shade on the panels</i>) demonstrate a complete understanding of the need to account for the trees in the eastern placement and therefore are both correct. The time given for the location (<i>noon</i>) is correct, and the response includes complete synthesis of the materials to explain the use of the light meter in determining the best location (<i>the light meter helps me know that because it shows that not a lot of shade gets on the spot I chose and it shows it gets the highest amount of light</i>).</p>

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p205	0000847516 8603201706	3	<p>Practice Set 2, Paper 5 Score Point 3</p> <p>There is evidence in this response that the student has a general understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location is given (<i>the south side</i>), but the time is incorrect (<i>9:00am</i>). The explanation for why this location would be best is generally complete (<i>because theres not very much shade on the south side which means more of the suns rays will shine more light there</i>). The response also includes a well-integrated explanation for the use of the light meter (<i>south side which means more of the suns rays will shine more light there . . . The information on the light meter helps me how that because it will show the strength of the sunlight in that area</i>). All parts of the question are addressed and general understanding is demonstrated.</p>
p206	0000779964 8615201706	2	<p>Practice Set 2, Paper 6 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. The response provides a valid, correct location (<i>on the roof</i>), but no time is given. A partial explanation for this location, showing synthesis from the stimulus, is provided (<i>The roof would be a good place because ther is nothing on the roof witch means no shadows</i>). Use of a light meter is not mentioned, resulting in a partially complete, limited response.</p>
p207	0000780161 8615201706	1	<p>Practice Set 2, Paper 7 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location is given (<i>south</i>), but the reasoning is unclear and incorrect (<i>it covers south last</i>). The time and light meter are not addressed in this response. Providing a valid location is sufficient to show minimal understanding of the question.</p>

Paper	RF Number	Score	Notes
p208	0009739606 8211201706	4	<p>Practice Set 2, Paper 8 Score Point 4</p> <p>There is evidence in this response that the student has a complete and thorough understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. This brief, but complete, response correctly and thoroughly addresses all aspects of the prompt. The location and time given are valid and correct (<i>South at noon</i>), and the explanation for the location provides a complete, full synthesis of the materials given in the stimulus (<i>The shadows are going North in the picture and its sunny in the south</i>). The light meter explanation is correct and complete (<i>the light meter shows where the light is the strongest</i>).</p>
p209	0000779106 8615201706	2	<p>Practice Set 2, Paper 9 Score Point 2</p> <p>There is evidence in this response that the student has limited understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A valid, correct location is given (<i>the more south part</i>); however, the time is incorrect (<i>from 1:00 pm to 5:00 pm</i>). Afternoon times show a significant flaw in logical thinking and application of the times when the strength of sunlight is at the highest. A partially complete explanation of the location and use of a light meter is provided (<i>sound of the school . . . because it's shiny and the sun looks like it really shines there . . . the light meter can help because it can help you detect the strength of the sunlight</i>).</p>
p210	0000779876 8615201706	1	<p>Practice Set 2, Paper 10 Score Point 1</p> <p>There is evidence in this response that the student has minimal understanding of where and when the highest strength of sunlight will occur, why that is, and how the light meter can help. A minimal understanding is demonstrated by the valid, correct location given (<i>In the middle</i>), which is assumed to be the roof of the school building which is in the "middle" of the diagrams, and the explanation of why this location is best (<i>middle would be the best because it would have a lot of sunlight</i>). The time is incorrect (<i>10:15 A.M.</i>) and there is no explanation of the light meter use.</p> <p>See note on Anchor Paper A110 concerning ambiguous directional terms.</p>

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q101	0000780304 8615201706	1	Qualification Set 1, Paper 1 Score Point 1
q102	0000779049 8615201706	0	Qualification Set 1, Paper 2 Score Point 0
q103	0000851869 8603201706	3	Qualification Set 1, Paper 3 Score Point 3
q104	0000782092 8615201706	2	Qualification Set 1, Paper 4 Score Point 2
q105	0001001499 8511201706	4	Qualification Set 1, Paper 5 Score Point 4
q106	0000780743 8615201706	3	Qualification Set 1, Paper 6 Score Point 3
q107	0000780331 8615201706	2	Qualification Set 1, Paper 7 Score Point 2
q108	0000780631 8615201706	1	Qualification Set 1, Paper 8 Score Point 1
q109	0000990643 8505201706	0	Qualification Set 1, Paper 9 Score Point 0
q110	0008702274 9809201706	4	Qualification Set 1, Paper 10 Score Point 4

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Paper	RF Number	Score	Notes
q201	0001021308 8501201706	3	Qualification Set 2, Paper 1 Score Point 3
q202	0000780225 8615201706	2	Qualification Set 2, Paper 2 Score Point 2
q203	0000780043 8615201706	0	Qualification Set 2, Paper 3 Score Point 0
q204	0009735389 8215201706	4	Qualification Set 2, Paper 4 Score Point 4
q205	0000780061 8615201706	0	Qualification Set 2, Paper 5 Score Point 0
q206	0000779955 8615201706	1	Qualification Set 2, Paper 6 Score Point 1
q207	0000813653 8611201706	3	Qualification Set 2, Paper 7 Score Point 3
q208	0000779031 8615201706	2	Qualification Set 2, Paper 8 Score Point 2
q209	0008720391 9807201706	4	Qualification Set 2, Paper 9 Score Point 4
q210	0000780395 8615201706	1	Qualification Set 2, Paper 10 Score Point 1