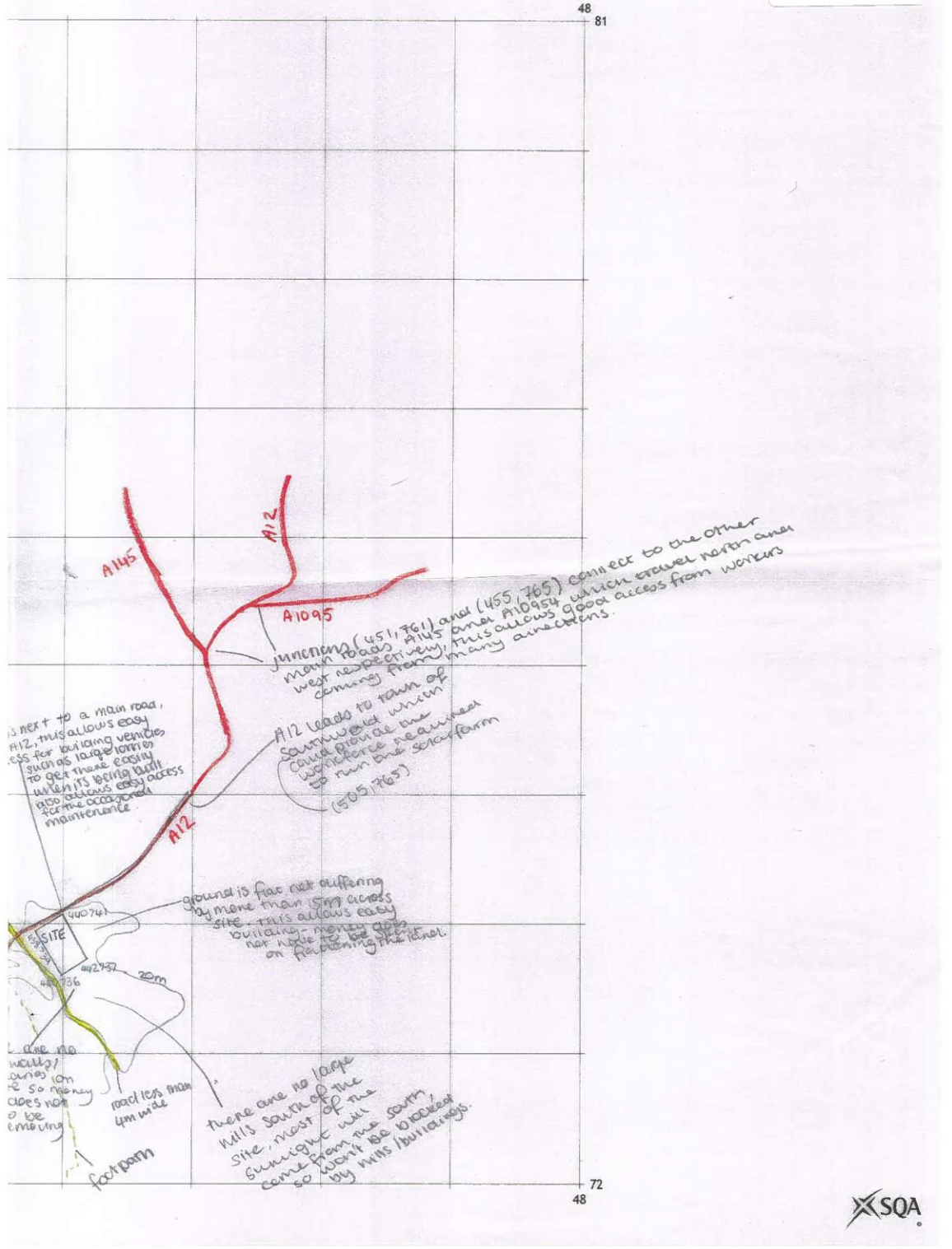


Question 1

Full name of centre ... Script 1 Question 1 117

Name of candidate ...

Date of birth

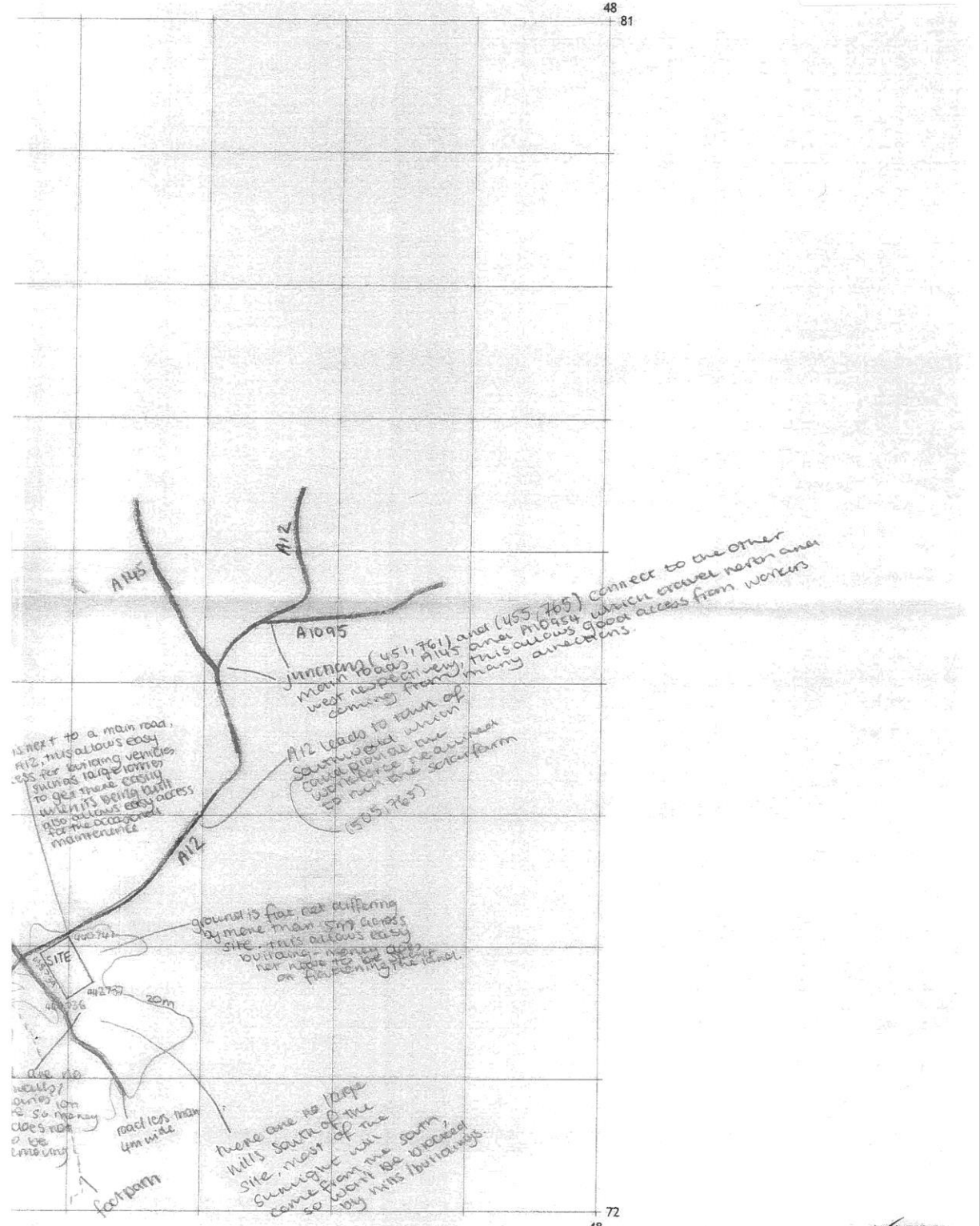


Full name of centre ... Script | Question 1 117

Name of candidate ...

Date of birth

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48



Title of atlas used in examination	Phillips School Atlas, modern school atlas 98th edition	
ENTER NUMBER OF QUESTION		DO NOT WRITE IN THIS MARGIN
1bii	<ul style="list-style-type: none">◦ it could create jobs for the locals eg in nearby town southwold (505, 765). this is only 7km away so workers commute would be easy with car or bike.◦ this would then stimulate further economic development in the area as more people would be contributing to the local economy◦ there could be complaints from locals that the site would ruin scenic views, as the site is close to several footpaths (435, 736) so people going on walks might be annoyed at the disruption in natural wildlife.◦ the underground cables would have to be laid which could cause further	

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1C	<ul style="list-style-type: none">◦ the 4m corridor within panels allows for successful undisturbed sections of grass where small animals such as insects can live.◦ the panels sit on posts, not directly on the ground, therefore minimising its impact on the ecosystem on the ground as less than 1% of the land area is actually used up by the panels.◦ the 30cm gap between the fence base + ground allows small animals such as rabbits to pass under, therefore they can still make use of the area within the fence.◦ there is 7m between the fence and the panels, so animals can pass under the fence and over the panels as they're not too close.◦ the 4m corridors encourage wildlife to use the site as they would any other natural environment.◦ in the 4m corridors + around the outside, natural shrubs is could be planted, low enough to not ^{block sunlight}

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1d	<ul style="list-style-type: none">◦ Steeper relief such as the 40m peak at (375, 765) would be more exposed to winds and often too steep to use farm equipment such as tractors on, therefore it could be used for sheep farming, whose hooves allow them to grip rockier, steeper slopes.◦ the River Blyth (430, 764) has pr allowed irrigation channels to be built around it, providing surrounding fields with pr water that is needed to grow crops.◦ the area has an annual July temperature of more than 17°C which would be good for growing fruits such as berries as these need warmer temperatures.◦ the area has an annual precipitation of 500-625mm which is good for farming as fields won't get flooded as easily, so less crops will be damaged and crop yields will be higher.◦ the type of soil is brown earth, which is well oxidised therefore well mixed by animals such as worms so its

ENTER NUMBER OF QUESTION	DO NOT WRITE IN THIS MARGIN
	<p>good for growing crops in. it also has plenty of minerals that the crops need to grow.</p>
	<ul style="list-style-type: none">• there are plenty of flat areas such as out (460, 740) which are ideal for planting crops as water won't run down to the bottom of the field and it is easy to get machinery such as harvesters across the field.

Question 2

<small>ENTER QUESTION NUMBER BELOW</small>	Do not type in this shaded box	<small>DO NOT WRITE IN THIS MARGIN</small>
2.	<p>(a) i] Land use mapping can be carried out in person or online. For both you need a base map of the location which you are investigating, in this case it would be from the CBD to the inner city. A scale then needs to be created. You would use the RICEPOTS classification for the buildings. Each letter in the classification represents a type of building e.g. R- residential I- industrial. Each building classification would have to be colour coded and represented in a key. If working in person you would then walk around the area and colour in each building, on the base map, with the type of building it is. The same is done when working online except you use an online map, e.g. google maps, and manoeuvre yourself around the area via the map.</p> <p>ii] One limitation with the RICEPOTS classification is that it is subjective. One person could think a building goes in one category and one may think it goes in another. Another limitation is that some buildings may not fit in any classification which makes classifying them difficult. The use of a base map also makes it difficult to classify buildings which have 2 or 3 different uses in the same building, potentially on different floors. It is more difficult to use an online map than go in person and some limitations of using an online map are that it could be out of date and some of the buildings could have changed and this will therefore not give you an up to date picture. Another limitation of collecting land use data is that it only gives us a very specific snap shot in time and therefore the data gathered will go out of date very quickly.</p> <p>(b) Another way that the students could gather appropriate information is by completing an environmental quality survey (EQS). A transect line could be set up from the centre of the CBD to the edge of the inner city and an environmental quality survey could take place 9 times along the line. (The line could be split equally into 9 sections and then the EQS could be performed systematically along the transect line). The EQS rates areas 1-5 with one being the worst and 5 being the best. The area is rated on different things such as: Is there any Graffiti? Is it noisy? E.c.t. These results could be compared from the centre of the CBD to the outskirts of the inner city and would allow you to see what has changed. This could be repeated at different seasons, months, e.c.t.</p> <p>Another way that students could collect data is by taking a decibel reading. Again along the transect line a phone app could be used to gauge the level of noise at each site. These readings would then be recorded and could be plotted against each other in order to see how the noise levels change as you move away from the centre of the CBD. This could be carried out at multiple different times over days, weeks, seasons, e.c.t to obtain whether there are particular times that these areas are noisiest.</p>	

Question 3

ENTER NUMBER OF QUESTION	DO NOT WRITE IN THIS MARGIN
3a1	<p>Sphere of Influence maps are useful to show the adequacy of a service for an area. In this same case, they would also show if an area had need for more public services, in this case schools. They are very visual, and clearly show if the number of schools are adequate or if the area would benefit from more, and in this case, they could show where the school would be most needed or most useful.</p>

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ii.	<p>Areas with higher y numbers of children and young families would need more schools, showing there could be a higher young population in the bottom of the map.</p> <p>More populated areas in general would also need more schools ^{with smaller catchment areas} as even if there isn't many children at the moment the number of children could grow.</p> <p>There are less schools ^{and bigger catchment areas} at the top of the map near to the River Parramatta. This could be because there are less people living here as it is harder to get to or perhaps more dangerous.</p> <p>Catchment areas ^{could be} are wider where there is a sparser population density as if the catchment area was small they would only have a small number of pupils in catchment.</p>

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bi.	
<p>The result of 1.53 show means that you can say with 95% certainty that the distribution of primary schools has got a significant element of regularity. 36 primary school locations were used meaning the result is well above the range of random matching. The result of 1.53 is also much closer to 2.15 than 1 also showing there is a significant element of regularity.</p> <p>ii. Nearest Neighbour analysis is effective here as it is used to measure distributions (random, regular, clustered) of features that can be regarded as being located at a specific point, such as schools. Nearest Neighbour is quick and easy to calculate. It is also effective here as 30 is the lowest recommended number to achieve accurate and reliable results, and here 36 data points have been used.</p>	

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ci.	<p>In diagram 5, you can see the total school enrolments increases each year from 2016 to 2020, with a % change of 5.5%. Each of the schools' ^{affiliations} also saw a significant increase in enrolment from 2019 to 2020.</p> <p>Independent schools saw the most significant increase from 2018 to 2020 with a % change of 9.5%.</p> <p>In Diagram 4, you can see Queensland has the highest annual growth rate of around 2.8% and Northern Territory has the lowest annual growth rate of around 0.3%.</p> <p>Both diagrams show an increase in student enrolment as they all show a positive % change.</p>

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ii.	<p>A stacked bar graph could be used to present the data. The number of student enrolments could go up the y axis and the the years could go along the x axis, with each of the different schools stacked on top of each other, the was and coloured colour coded according to a key. The columns would create a very useful diagram that is relatively straightforward to calculate interpret.</p>