## edexcel

Mark Scheme (Results)
Summer 2014

PLSC Science (JSC01/01)<br>Edexcel International Primary<br>Curriculum Science

Y6 Achievement test

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.


## SECTION A

| Question <br> Number | Answer | Mark |
| :--- | :--- | :---: |
| 1 | D | 1 |
| 2 | B | 1 |
| 3 | D | 1 |
| 4 | C | 1 |
| 5 | B | 1 |
| 6 | B | 1 |
| 7 | C | 1 |
| 8 | D | 1 |
| 9 | A | 1 |
| 10 | C | 1 |
|  |  | 10 |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| 11a | i) filter paper (1) <br> ii) (filter) funnel (1) | If both fully correct but in <br> wrong order allow (1) | $\mathbf{2}$ |
| $\mathbf{1 1 b}$ | in beaker/water/solution/filtrate (1) <br> (because) it dissolves/is soluble <br> (1) | Ignore: references to <br> 'bottom of' and credit <br> beaker <br> Ignore: saltwater can pass <br> through filter paper. | $\mathbf{2}$ |
|  |  | Total for question | $\mathbf{4}$ |


| Question | Acceptable answers | Additional guidance | Mark |
| :---: | :---: | :---: | :---: |
| 12a | Any 1 from <br> food production / making food <br> (1) <br> rotting/decaying (qualified)/ <br> decomposing/compost(ing) (1) <br> example of pharmaceutical use e.g. : penicillin/antibiotics /vitamin synthesis/making insulin/making vaccines (1) | Accept: named product e.g. yogurt/curd/ bread/ cheese/ beer <br> Ignore: decaying/rotting food, or other indication that it is not useful on second marking point only. Otherwise penalise contradictions e.g. food production and causes disease <br> Ignore: medicine alone as it is insufficient. | 1 |
| 12b | Any 3 from: <br> feed (1) <br> grow (1) <br> reproduce <br> (1) <br> move (1) <br> sense (1) <br> respire(1) <br> excrete (1) | Reject: make their own food Accept: eat <br> Accept: have babies/young/offspring <br> I gnore: breathe <br> Ignore: remove waste | 3 |
|  |  | Total for question | 4 |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| $\mathbf{1 3}$ | Any 3 from: |  | $\mathbf{3}$ |
| radio near water/sink (1) |  |  |  |
| child with pencil next to socket (1) | Accept: alternatives to <br> pencil e.g. pen/stick <br> Accept: no childproof cover <br> on socket |  |  |
| frayed /damaged /repaired <br> wire/lead/cable (1) <br> trailing wires / leads/cables (1) | Total for question | $\mathbf{3}$ |  |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| $\mathbf{1 4}$ | ammeter |  | $\mathbf{1}$ |
|  |  | Total for question | $\mathbf{1}$ |


| Question <br> Number | Answer | Mark |
| :--- | :--- | :---: |
| 15 | B | 1 |
| 16 | D | 1 |
| 17 | A | 1 |
| 18 | D | 1 |
| 19 | B | 1 |
| 20 | C | 1 |
| 21 | B | 1 |
| 22 | D | 1 |
| 23 | A | 1 |
|  |  | 9 |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| $\mathbf{2 4}$ | Any 2 from: <br> flower colour (1) <br> flower shape/distribution or <br> description (1) <br> number of petals (1) <br> leaf colour (1) <br> leaf shape/size or description (1) | Allow: roots, if qualified <br> Ignore: smell/habitat | $\mathbf{2}$ |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 5}$ |  |  |  |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| $\mathbf{2 6 a}$ | solution | $\mathbf{1}$ |  |
| $\mathbf{2 6 b}$ | it does not dissolve/is insoluble | $\mathbf{1}$ |  |
| $\mathbf{2 6 c}$ | more of solid C dissolved (in the <br> same amount of water) (1) | (or converse) <br> Accept: solid C dissolves <br> better/more easily <br> Ignore: solid C dissolves <br> faster/quicker <br> (or converse) | $\mathbf{1}$ |
| $\mathbf{2 6 d}$ | solid C is more soluble (1) | Ignore: heat the solution <br> lmixture/water (containing <br> A) | $\mathbf{1}$ |
|  |  | Total for question | $\mathbf{4}$ |


| Question <br> Number | Answer | Mark |
| :--- | :--- | :---: |
| $\mathbf{2 7}$ | A | $\mathbf{1}$ |
| $\mathbf{2 8}$ | D | 1 |
| $\mathbf{2 9}$ | B | $\mathbf{1}$ |
| $\mathbf{3 0}$ | D | $\mathbf{1}$ |
| $\mathbf{3 1}$ | B | $\mathbf{1}$ |
| $\mathbf{3 2}$ | A | $\mathbf{1}$ |
|  |  | $\mathbf{6}$ |

## SECTION B

| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| 33a | thermometer |  | $\mathbf{1}$ |
| 33b | 20 |  | $\mathbf{1}$ |
| 33c | It will go down/decrease/be lower |  | $\mathbf{1}$ |
|  |  | Total for question | $\mathbf{3}$ |


| Question | Acceptable answers | Additional guidance | Mark |
| :--- | :--- | :--- | :---: |
| 34a | 4 | 1 <br> 34b | only one with suitable scale / <br> more graduations $/ 5 \mathrm{~cm}^{3}$ markings |
| Accept: more numbers on <br> it / can give smallest <br> measurements <br> Dependent on (a), but if <br> (a) blank can score one or <br> both marks in (b) | $\mathbf{1}$ |  |  |
|  | Accept: reverse argument <br> for not selecting 1,2,3 |  |  |


| Question | Acceptable answers | Additional guidance | Mark |
| :---: | :---: | :---: | :---: |
| 35a | (same) volume (1) <br> pieces of towel same area <br> (1) | Accept: (same) amount of water <br> Accept: same $\mathrm{cm}^{3} / \mathrm{ml}$ <br> Accept: same size / width <br> / length / measurements | 2 |
| 35b | measuring cylinder (1) |  | 1 |
| 35c | Any 1 from: <br> identify anomalies / errors/mistakes <br> (1) <br> (improve) reliability (1) <br> (to calculate) an average <br> (1) | Ignore: results will be more accurate <br> Ignore: reference to fair test | 1 |
| 35di | 14 circled (1) |  | 1 |
| 35dii | Any 1 from: <br> result too high (1) <br> other results were (both) 7 <br> (1) | I gnore: mistake | 1 |
| 35e (i) | Both required for mark <br> $x$ axis- towel <br> y axis - number of pieces (of towel) <br> (1) |  | 1 |
| 35e (ii) | 2 bars correctly drawn (1) | Ignore: width and allow error $+/-2 \mathrm{~mm}$ in height | 1 |
| 35f | (paper towel) B (1) <br> took fewer pieces (of towel to soak up water) <br> (1) | dependent on choice of $B$, but if choice line blank can score one or both marks in explanation <br> Accept: smallest number / least / only 3 | 2 |
|  |  | Total for question | 10 |

## Ofqual



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