**RUBRIC FOR VIRUS MODEL**

70 POINT TOTAL

|  |  |  |
| --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** |
| Overall | Model correctly represents a genus of plant viruses | 15 |
|  | At least 3 other species are listed that possess the same architecture | 5 |
|  | Model is to scale (include scale) | 10 |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 |
|  | Includes correct no. of cp subunits for particle | 10 |
|  | Location of cp subunits is shown accurately | 5 |
| Nucleic acid | Genome included | 10 |
|  | Length of genome is to scale | 5 |
| Presentation | Correct nomenclature/orthography | 3 |
|  | Visual clarity | 2 |
| TOTAL |  | 70 |

Stephanie Adams & James Fulton **Bacilliform Particle**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** | **POINTS EARNED** |
| Overall | Model correctly represents a genus of plant viruses | 15 |  |
|  | At least 3 other species are listed that possess the same architecture | 5 |  |
|  | Model is to scale (include scale) | 10 |  |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 |  |
|  | Includes correct no. of cp subunits for particle | 10 |  |
|  | Location of cp subunits is shown accurately | 5 |  |
| Nucleic acid | Genome included | 10 |  |
|  | Length of genome is to scale | 5 |  |
| Presentation | Correct nomenclature/orthography | 3 |  |
|  | Visual clarity | 2 |  |
| TOTAL |  | 70 |  |

Sage Thompson and Lorena Lopez **Geminate Particle**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** | **POINTS EARNED** |
| Overall | Model correctly represents a genus of plant viruses | 15 | 15 |
|  | At least 3 other species are listed that possess the same architecture | 5 | 5 |
|  | Model is to scale (include scale) | 10 | 10 |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 | 5 |
|  | Includes correct no. of cp subunits for particle | 10 | 10 |
|  | Location of cp subunits is shown accurately | 5 | 10 |
| Nucleic acid | Genome included | 10 | 10 |
|  | Length of genome is to scale | 5 | 5?? |
| Presentation | Correct nomenclature/orthography | 3 | 3 |
|  | Visual clarity | 2 | 2 |
| TOTAL |  | 70 | 70 |

Bruce Stripling & James Betts **Tospovirus Particle**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** | **POINTS EARNED** |
| Overall | Model correctly represents a genus of plant viruses | 15 | ?? |
|  | At least 3 other species are listed that possess the same architecture | 5 | 5 |
|  | Model is to scale (include scale) | 10 | ?? |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 | 5 |
|  | Includes correct no. of cp subunits for particle | 10 | ?? |
|  | Location of cp subunits is shown accurately | 5 | ?? |
| Nucleic acid | Genome included | 10 | 10 |
|  | Length of genome is to scale | 5 | ?? |
| Presentation | Correct nomenclature/orthography | 3 | 3 |
|  | Visual clarity | 2 | 2 |
| TOTAL |  | 70 |  |

* Scale not included
* Not sure about no. of polymerase molecules
* Not sure about scale of the RNAs

Alex Gannon and Arjun Khadka **T=3 Icosahedral**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** | **POINTS EARNED** |
| Overall | Model correctly represents a genus of plant viruses | 15 | 13 |
|  | At least 3 other species are listed that possess the same architecture | 5 | 5 |
|  | Model is to scale (include scale) | 10 | 10 |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 | 5 |
|  | Includes correct no. of cp subunits for particle | 10 | 10 |
|  | Location of cp subunits is shown accurately | 5 | 3 |
| Nucleic acid | Genome included | 10 | 10 |
|  | Length of genome is to scale | 5 | 3 |
| Presentation | Correct nomenclature/orthography | 3 | 3 |
|  | Visual clarity | 2 | 2 |
| TOTAL |  | 70 | 64 |

* Did not indicate whether the RNAs are encapsidated together or separately (mono or multipartite virion?)
* 2 scales used, one for particle and one for RNA
* CP molecules not shown on model only in ppt

Morgan Pinkerton and Ky **Rigid Helix**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODEL** | **ITEM** | **POINTS** | **POINTS EARNED** |
| Overall | Model correctly represents a genus of plant viruses | 15 | 15 |
|  | At least 3 other species are listed that possess the same architecture | 5 | 5 |
|  | Model is to scale (include scale) | 10 | 10 |
| Coat protein  | Model displays diversity of cp subunits if more than one is present | 5 | 5 |
|  | Includes correct no. of cp subunits for particle | 10 | 10 |
|  | Location of cp subunits is shown accurately | 5 | 5 |
| Nucleic acid | Genome included | 10 | 10 |
|  | Length of genome is to scale | 5 | 5 |
| Presentation | Correct nomenclature/orthography | 3 | 3 |
|  | Visual clarity | 2 | 2 |
| TOTAL |  | 70 | 70 |