**Plant Systems/Classification Review**

**Plant Systems**

Root

* What are the functions of the root?

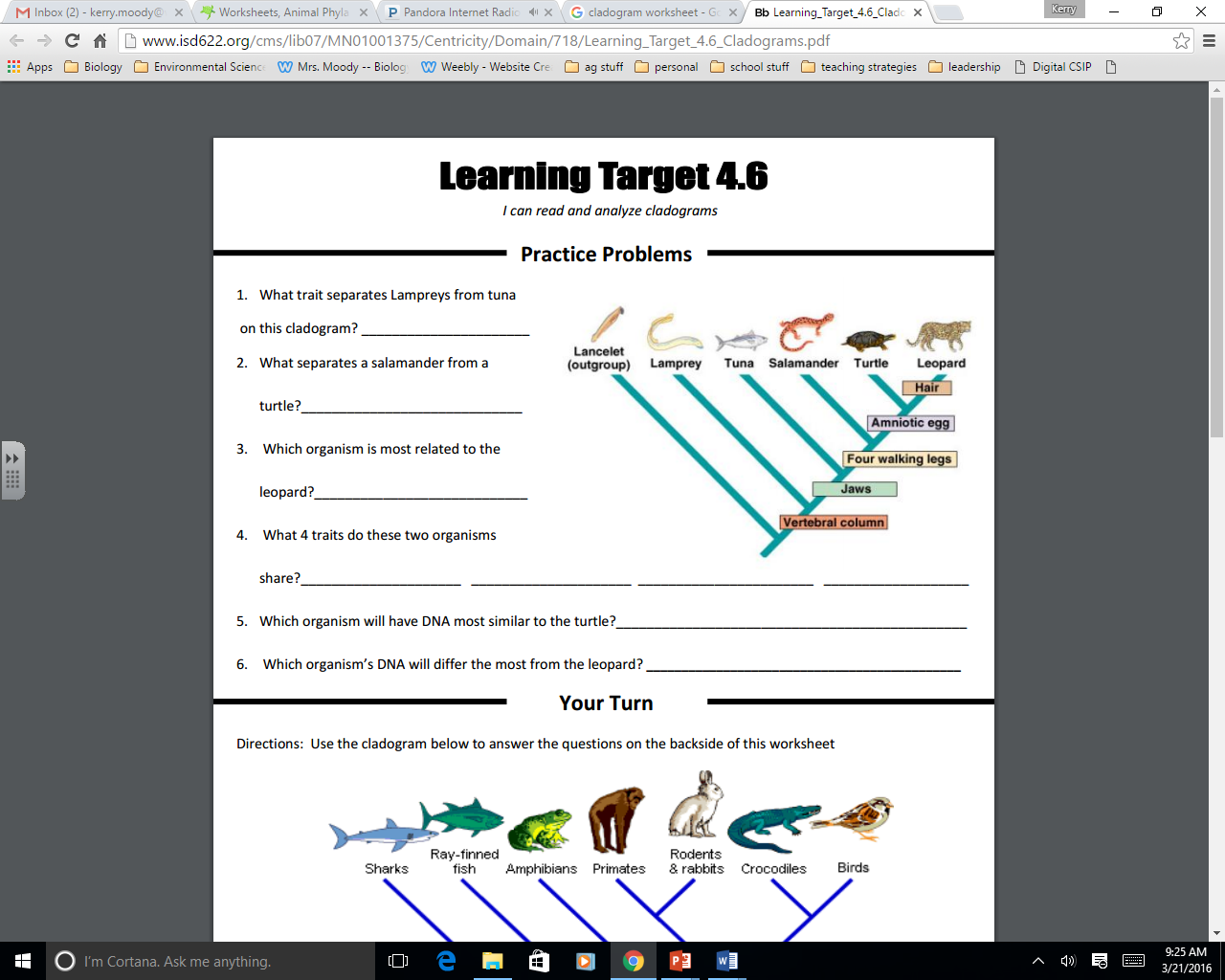
Stem

* What are the functions of the stem?
* Explain the function of xylem & phloem.

Leaves

* What are the functions of the leaf?
* What is the formula for photosynthesis?
* What is the function of the stomata?

Flowers

* What is the function of the flower?
* What is the difference in self-pollination and cross pollination?
* Which type of pollination assures genetic diversity?
* What is the function of these parts of the flower:
  + Stamen
  + Pollen
  + Pistil
  + Ovules

Use this cladogram to answer questions 6-8 on back!

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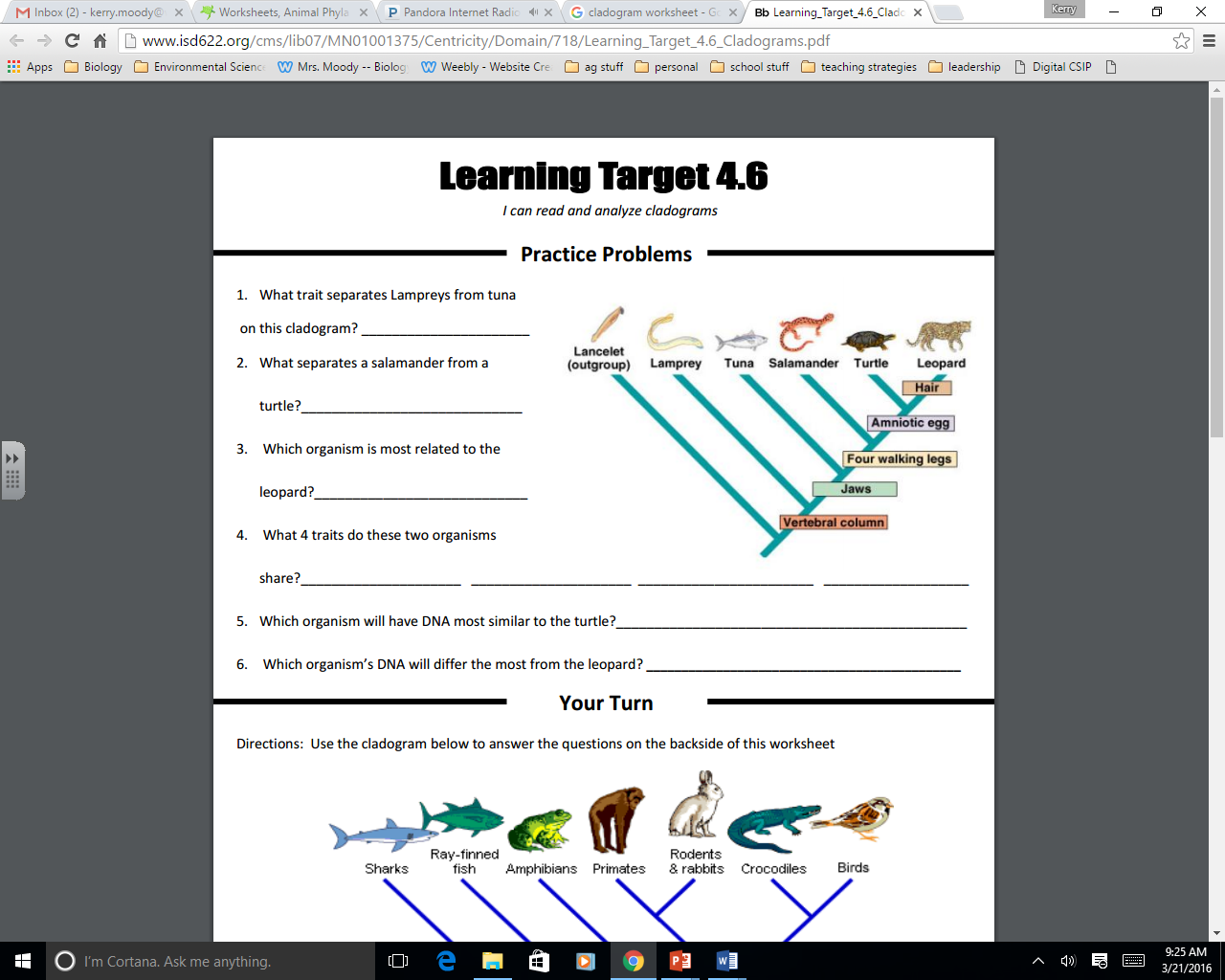
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**Classification – *Use the table for questions 1-5***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **House Cat** | **Red Fox** | **Dog** | **Wolf** | **Gopher** |
| **Kingdom** | Animalia | Animalia | Animalia | Animalia | Animalia |
| **Phylum** | Chordata | Chordata | Chordata | Chordata | Chordata |
| **Class** | Mammalia | Mammalia | Mammalia | Mammalia | Mammalia |
| **Order** | Carnivora | Carnivora | Carnivora | Carnivora | Rodentia |
| **Family** | Felidae | Canidae | Canidae | Canidae | Geomyidae |
| **Genus** | *Felis* | *Vulpes* | *Canis* | *Canis* | *Thomomys* |
| **Species** | *domesticus* | *fulva* | *familiaris* | *lupus* | *bottae* |

1. What kind of animal is *Vulpes velox*? How do you know?

2. Which two animals are most closely related? Explain.

3. Which taxon would have more species, an order or a family?

4. Which taxon includes only organisms that can successfully interbreed?

5. If two organisms belong to the same family, what other taxonomic groups do the organisms have in common?

***Use the cladogram on the other side to answer these questions.***

6. What trait separates Lampreys from tuna on this cladogram?

7. Which organism is most related to the leopard?

8. What 4 traits do these two organisms share? (from question 7)

***Be able to use a dichotomous key.***

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