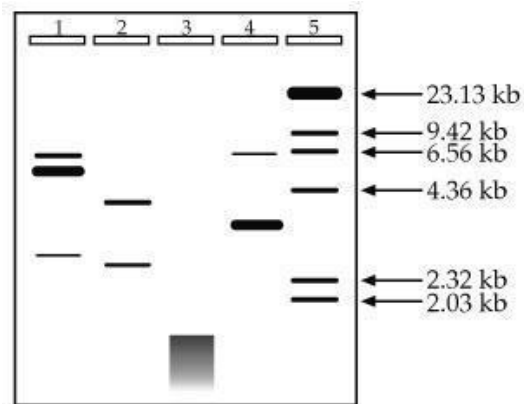


## Assignment: Agarose gels- how they work

1. This is a gel with the size standard (ladder) in lane 5. Identify the approximate sizes of each DNA fragment in lane 1. Note: kb means kilobases. One kb is 1000 bases. (choose all that apply)



- ☐ 2.03 kb
- ☐ 2.5 kb
- ☐ 3.5 kb
- ☐ 4.0 kb
- ☐ 5.0 kb
- ☐ 6.5 kb
- ☐ 23.2 kb

2. Why does agarose gel electrophoresis separate DNA molecules?

3. Why is loading dye added to the PCR product before loading it into the wells of the gel?

- ☐ It increases the density of the PCR mixture so it settles to the bottom of the gel
- ☐ It stains the DNA so that we can see it migrating on the gel
- ☐ It causes the DNA to be negatively charged so it will migrate on the gel when electricity is turned on

4. Which of the below binds to DNA so we can see it in the gel?

- ☐ Loading Dye
- ☐ Blue Juice
- ☐ GelGreen
- ☐ Running Buffer