

## 1.2 Le comportement des ondes

Lorsqu'une onde mécanique atteint la fin de son médium, elle subira une [ ] L'énergie qu'elle appartient ne [ ] pas. La réflexion est différente pour une frontière dure (fixe), et pour une frontière plus absorbante (flexible ou non-fixe). Plus la frontière est [ ], plus l'énergie est [ ]  
Pense à un echo...

La vitesse d'une onde mécanique dépend seulement des propriétés du [ ] à travers lequel il passe et non [ ] ni la [ ] de l'onde.

ex. La vitesse de son dans l'air = [ ] (dépendant des conditions)

Une onde qui change de milieu changera ainsi sa vitesse [ ] lorsqu'elle passe dans le nouveau milieu Elle sera aussi [ ] par le nouveau milieu (une sorte de frontière).

Observe la vitesse de l'onde réfractée et la nature de l'onde réfléchi.

### Superposition

Quand deux ondes se croisent, de [ ] se produit. Le déplacement des impulsions combinées à chaque point d'interférence correspond à [ ] des déplacements des impulsions [ ]

ex. The Double Up in wakeboarding

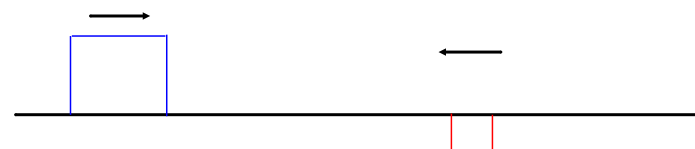
[https://www.youtube.com/watch?v=ywaa0zy\\_lpc](https://www.youtube.com/watch?v=ywaa0zy_lpc)

Quand une [ ] rencontre un [ ] l'interférence est [ ] ; l'onde semble [ ] Quand deux crêtes (ou creux) se rencontrent, l'interférence est [ ]

ex. constructive



destructive



Des [ ] se produisent quand de [ ] ont en **interférence** continue avec un et l'autre.

<https://www.youtube.com/watch?v=KFzqike1Z0A>

Des [ ] sont des points avec [ ] déplacement.

Des [ ] sont des points avec un déplacement [ ]

Définitions

Onde incident: \_\_\_\_\_

\_\_\_\_\_

Onde réfléchi: \_\_\_\_\_

\_\_\_\_\_

Interférence: \_\_\_\_\_

\_\_\_\_\_

Onde stationnaire: \_\_\_\_\_

\_\_\_\_\_

Normal: \_\_\_\_\_

\_\_\_\_\_

Noeud: \_\_\_\_\_

\_\_\_\_\_

ventre: \_\_\_\_\_

\_\_\_\_\_

## **Lab Reports**

All lab reports must include the following sections.

**Title** -a descriptive title of your lab.

**Name** -first and last name, in the top right hand corner.

**Date** -day, month, year on the line below your name.

**Partners** -first and last names of those in your group on the lines below your name.

**Purpose** -a written statement of what your lab is trying to find out. Note that an hypothesis (if desired) should not be a separate heading. It should be done as the first step of the procedure, and included in the observations section.

**Procedure** -write out what was done. Materials should be included here rather than a separate section. May refer to a procedure written in a book rather than copy it over again. Abbreviated bibliography format to include title, publisher and page.

**Observations** -what you sensed or measured. A table should be used for repetitive data collection (use a ruler). Should include units for any measurements.

**Analysis** -what you did with your observations. Should include answers to any questions asked in the lab as well as a sample of any calculations made. Graphs are also analysis, but they will be a separate page, and will be covered below.

**Conclusion** -a written statement (summary) of what you learned. Should refer back to purpose.

## Graphs

All graphs must include the following points, and be on a separate page of grid paper. One graph per page, although the same axis could be used for more than one set of data. Calculations (such as slope) should not be on the graph. They are analysis, and should be in that section of the body of the report.

**Title** -a descriptive title of your graph.

**Name** -first and last name, in the top right hand corner.

**Date** -day, month, year on the line below your name.

**Darken Axis** -use a ruler to darken the horizontal and vertical axis. Note that paper may be turned to make the graph in landscape view, but it should always be read straight on or from the right hand side.

**Label Axis** -describe the axis, including appropriate units. Abbreviation is not acceptable for the label, but may be permitted for the units.

**Choose a Scale** -should be even and expanded so that data fills the page. Should include the origin. Broken scales are not appropriate.

**Plot Points** -solid dots should be used to mark the location of data points. The coordinates do not need to be written in. Error bars are not required.

**Draw a Best Fit Line** -use a ruler to best fit a line through the data. Dashes should be used to extend beyond the limits of the points. Lines should not be forced through the origin, although that might be a point on the graph. Lines should be extended to show the intercept with the horizontal or vertical axis. If the data show a curved relationship, a best fit line should still be drawn, although a ruler will not be required.

**Key** -if more than one set of data is plotted on the same axis, a key should be included to identify the different trials.