# **Comparing Energy**

#### Summary

This jigsaw activity is designed to help students compare and contrast information about different types of waves. It can be done with or without computer support.

### Time Frame

1 class periods of 60 minutes each

#### Group Size

Small Groups

# Materials

textbook Internet access (optional) notes video (general video on wave types, Bill Nye etc.)

 <u>student sheet</u> (attached)

# **Background for Teachers**

Your students show know what the titles of the columns on the data table refer to. If you have not explained that waves all have an energy source, travel at different speeds or have different wavelengths, you should discuss them with the students. A description of the different mediums energy can travel through is important. Students are least likely to know what a vacuum is but should be familiar with gases, liquids and solids.

# Instructional Procedures

Read the introduction and explain which materials students will have access to for research. Assign or allow groups of students to assign a wave type to each student in the group. Provide 10-15 minutes for the groups to work.

You may wish to group all the students working on each type of wave together to share information before they share it with their groups. They could put their information on a transparency to share with the class.

Have a student report on each type of wave so that the whole class can have the same information.

Students may need some help with the Venn Diagram on the conclusion. The center of all three circles contains characteristics that all the waves have in common.

#### Assessment Plan

#### Scoring Guide

Student collects data on their wave......4 Student share information with others......4 Students answer analysis questions correctly and completely....4 Answers:

Answers will vary but should be supported by explanation in the why? Part of the question. same as #

All waves carry energy, have a source, travel through a medium Students accurately complete Venn Diagram......4

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

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