

So You Think Particles Can Dance?

Summary

Students use music to understand the relationship between energy and particle movement in solids, liquids, and gases.

Time Frame

2 class periods of 45 minutes each

Group Size

Small Groups

Materials

- iPods
- cell phones
- CDs
- other musical devices

Background for Teachers

This activity depends on how much you trust your students to bring appropriate music.

Instructional Procedures

DAY 1

Hook activity -- Play an example of calm music and an example of fast music. Ask the students to stand up and move in whatever way the music makes them move. Tell the students they will be relating music to how particles move in solids, liquids and gasses. Ask the students to bring a variety of different types of school-appropriate music to class the following day. (Have the students in groups, then those who do not have music to bring can share with those who do. Read the section "Kinetic Theory" aloud from the corresponding section in your textbook. Do a think-aloud while you read (tell the students how you pick out what is important and the strategies you use to understand the text.

Discussion -- have the students predict what future sections are going to talk about.

Explain the student sheet to the class and have them do part one.

Have the students pair-up to complete part two of the student sheet.

Remind the students to bring in appropriate music for day 2.

DAY 2

Discuss the previous day's reading/writing activity.

Divide the class into small groups (3-4 in each)

Have each group select an appropriate piece of music that represents particle movement in solids, liquids, and gases.

Have the groups take turns playing a small segment of each piece of music and explain to the rest of the class how their selections represent particle movement in solids, liquids, or gases.

Assessment Plan

Scoring Rubric / Answer Key

:

- Student sheet filled out completely.....10
- Student cooperated and contributed to group presentation.....10

Analysis Answers:

Particles in a gas move very fast, they move slower in a solid. Particles in solids stay in the same place, in a gas the particles move all over. Particles in a gas are far apart, in a solid they are close together.

Answers will vary

Energy

Answers will vary

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)