Weaving Activity

Summary

This lesson will help students understand how woven fabrics are created and the differences between the plain weave, the twill weave, and the satin weave.

Main Core Tie

Sewing Construction & Textiles 2 Strand 3 Standard 2

Time Frame

2 class periods of 45 minutes each

Group Size

Individual

Life Skills

Thinking & Reasoning

Materials

For this activity you will need the following items:

A copy of the attached note outline on an overhead transparency

3 copies of the weaving assignment sheets per student

1 1/2 pages of weaving strips for each student

Weave visual on overhead transparency

Scissors for each student

Glue sticks

Examples of complete weaves

Background for Teachers

Please be familiar with the three types of weaves that you will be teaching in this activity: plain, twill and satin. This information can be found on the attached note guide in a basic outline form or textbooks can be used to gather more indepth knowledge on the subject. It may also be useful to complete an example weave for each of the three, so you will know better how to help the students complete their own weaves.

Student Prior Knowledge

Students need no specific prior knowledge to be successful at this activity. It may be helpful to have already talked about fibers and what they are made of so that this fits sequentially into the fabric construction process.

Intended Learning Outcomes

After they complete this activity, students should be able to identify the three types of weaves and how they are created.

Instructional Procedures

The first step to completing this lesson is going over the information on the different types of

fabric construction with your students.

Place the transparency on the overhead projector and have students take notes from the outline as you go through the information verbally. Try to elaborate a bit to give students more time to write.

Once you have gone over the information and answered any questions that your students have, have students get scissors and glue sticks (both can be shared if limited quantities are available), and then hand out 3 copies of the weaving assignment sheet and 1 1/2 pages of the weaving strips to each student.

At this point, ask students to write their names on all three of their assignment sheets as well as labeling each of the three with a different type of weave.

Have students then start cutting their assignment sheets following the lines that are given-MAKING SURE TO STOP AT THE LINE UNDERNEATH THE NAME/HOUR. They will have a serious problem if they cut all the way through their papers. Please ask students to cut as evenly and neatly as possible because it will help their completed weaves to turn out better in the end. It may be helpful at this point to have an example sheet cut the way you would like them to cut it. When students have finished cutting up their assignment sheets, have them begin cutting their weaving strips. These strips should actually be cut all the way apart. They should be completely separate pieces.

Put the Weaves Visual up on the overhead projector so that students have a guide to look at as they work. This may also be the point at which you want to show them the example weave that you made so they know what they need to do to complete the assignment.

Have students take a weaving strip and weave over one under one with their "Plain Weave" assignment sheet. Demonstrate how it is done as they watch.

Next, take a second weaving strip and show students how to alternate rows so that every other one is the same.

Allow time for students to complete this first weave. Hint: push the weaving strips all the way to the top for the tightest weave. Also, if they put a tiny bit of glue on each end of their weaving strips once they are in place, it helps hold the weave together.

Once students have completed their Plain Weave example successfully, start on the Twill Weave in the same manner that you demonstrated before. Over two, under two, etc... Each separate line of weaving should be started one spot over the last. Follow the visual for guidance.

Finally, demonstrate to the students how to complete the Satin Weave and give them time to complete their example.

When all three weaves are complete, have students hand in the weaves for correction.

Strategies for Diverse Learners

For those students that may struggle to keep up with the rest of the class, you may want to minimize the amount of the weave that they need to complete in order to receive full credit.

Extensions

Once you have corrected the weaves and handed them back to the students you may want to talk about how the tightness of the weave affects the "fabric" itself--in areas like strength, durability, how stiff it is or how well it drapes, etc. If you show one tightly woven example and compare it to one that is more loosely woven, it should demonstrate the point quite effectively.

Assessment Plan

This activity can be assessed on completion, correctness and neatness. You can decide upon specific point values according to the system that you use in your own classroom.

Bibliography
USOE Curriculum Guide

Authors

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