



# Grade 7 Science

## Unit 4: Structures



## Joining Technology

- A joint is any place on a structure where pieces are held together.
- Joints are important for many reasons:
  - Allow the use of multiple materials
  - Allow a structure to have different components
  - Without joints a structure would have to be carved or molded
- “Mobile Joints” are joints that allow movement.
  - Your shoulder is a ball and socket joint
- “Rigid Joints” prevent movement.
  - Your stool has a rigid joint between the seat and legs
- Joints are normally the weakest point of a structure, therefore there is a need for a variety of types of joints to suit a variety of different situations.



# Joining Methods

One student at a time, alternating genders, we will write a list of joining methods below. Let the competition begin.

<u>SLOTS</u>	<u>Zipper</u>	<u>Boys</u>	<u>Rope</u>	<u>Knots</u>	<u>Girls</u>	<u>Bobbin</u>	<u>Push Pin</u>
Stick note sticky stuff Manually fitting Sewing	Soldering Nailing Clamping Glue Staple Putting it together Magnets dry liquid	Screws Glue melting Tape hot glue Junk magnetic String	Pressure Cement sticky Tac molding lock Paperclip Velcro	Pressure paper clip skewer			

# Joining Methods

Your task for today is to read a section of text and make a note with the title "Joining Methods." In your note, you should cover the following topics, including a brief explanation and example of each:

- o Mobile vs Rigid Joints
- o Fasteners
- o Ties
- o Adhesives
- o Melting
- o Interlocking Shapes



If you do not use your class time to write your note, it is then to be done as homework.

Any extra time you have at the end of class may be used to work on the questions from your Paper Olympics experiment.



## Attachments

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4-6 Scan of Textbook Pages 398 - 401.pdf