going from 2-D to 3-D
giant creature by Donna Wilson (right)
3-d form achieved by stuffing flat sewn shapes

3-d form achieved through patterning
Patterns - template created for different parts of an object
Seam Allowances (inlay): area between edge of fabric and stitching line

Seam allowance range: $\frac{1}{4}'' - \frac{1}{2}''$
follow the guide on the sewing machine or draw your own
Copy a pattern from existing clothes
Purchase a pattern and adjust to your size
Draping—make your own pattern from scratch.

https://www.youtube.com/watch?v=h8EJdEgATX8
3D Models to 2D Patterns

Pepakura
**Darts**

Segment of fabric folded (or removed) and stitched to create rises or drop in the structure
Darts

- Central darts
- Shoulder darts
- Bust darts
- Armhole darts
- Neckline darts
- Standard 4 dart
- Fisheye darts
- Double darts
- Waistline darts

Transferring a bust dart:
standard dart positions

- Waist
- French
- Side (Straight)
- Mid-Armhole
- Shoulder Tip
- Mid-Shoulder
- Mid-Neck
- Centre Front Neck
- Centre Front Bust
- Centre Front Waist

https://www.youtube.com/watch?v=ikjH91ys2AE
A sloper is basically a generic pattern based on your measurements no wiggle room, no seam allowances, no style. Slopers are the building blocks of all patterns. Having your own sloper is a powerful fitting tool you can use with any existing pattern.
Darts

Project update May 2014 – Material Reduction: Efficient Fabric-Formed Concrete, Winnipeg, MB, Canada
The branching columns shown here are also formed from flat sheets of fabric using another CAST formwork invention.
Photo: CAST, University of Manitoba.

https://www.formfounddesign.com/fabric-forms
On the WS, it gets more interesting. Here is a single-point dart.

\[ a = \text{dart length (excluding SA bit)} \]
\[ b = \text{depth of dart} \]
\[ c = \text{width of dart} \]

\( D \) = dart apex
\( E \) = dart leg
\( F \) = fold of dart
Here is a curved dart - this one is convex, so it’s bulgy like a blimp. It has curved dart legs.
Here is a double-point dart. This one is a straight dart (i.e. it is diamond-shaped with straight dart legs). All the annotations are the same as with the single-point dart.

The Art of Manipulating Fabric, Colette Wolff