

Goldilocks & the Three Bears

This story lends itself to multiple engineering aspects, and a few are listed below. The level at which a teacher develops this within the classroom will, obviously, depend on the age and ability of the students.



The student's first task would usually be **identifying a need**. There are a few suggestions for this, or students may list their own based on what they notice in the story. The examples below are just samples of needs that the children may identify.

- How would the bears know when someone was in their house? Design an alarm system that would help them with this.
- How could Baby Bear's chair be made stronger? Compare and contrast various illustrations and decide which shape it was. Identify whether it was a 3 legged stool or a 4 legged chair. (Can carry out the 3 legged design activities to discuss stability issues).
- How can Goldilocks escape safely from the bear's house? Children will design a system that allows her to leave the bedroom without being caught by the bears. E.g A slide or a trampoline.

The next step would be **research**. This has already been discussed in the Assessment of baby bear's chair, but could also incorporate research into the Strength, properties and usage of different materials.

The research component is often involved before the communicating of an idea in order to develop the best possible solution, but it may be brought in later to inform and modify the initial idea.

This component involves many of the skills that are being taught in Language Arts, Science and Social Studies. As with other research areas, it is helpful to the children if a graphic organizer format can be used for Engineering Technology research.

After identifying a need and carrying out research, we move on to **developing and communicating ideas**. This is a critical part of the design process. Communication covers a wide range of possibilities including pictorial representations, written reports, accurate engineering drawings and modeling. Successful communication occurs when a designer has managed to share an idea with others in such a way that they understand his design idea. One great way for children to communicate their design is through the use of a prototype.