

Integrating Engineering and Literacy

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obviously! It doesn't necessarily endorse these ideas.

Engineering is...

Applying understanding of the environment in **the pursuit of solutions** to problems,

solutions in the forms of new objects, systems, or processes.

Engineering involves...

- Identifying and scoping problems,
- Formulating ideas for possible solutions,
- Realizing, testing, evaluating and refining those ideas.

Integrating Engineering and Literacy

- Identify an engineering problem for characters in children's literature
- Come up with ideas for solving the problem, and choose one to build
- Make a prototype to test, evaluate, and refine.

Examples of books and problems

Mixed-Up Files of Mrs. Basil E. Frankweiler

Seeing a museum statue above the tall crowds

Shiloh

Building a pen to keep a dog safe

Hatchet

Making a shelter that will stay warm at night

City of Ember

Catching the mayor stealing food

Mouse and the Motorcycle

Helping the mouse escape from the garbage pail

Fifth-grade students' introduction to engineering in a rural MA school

Problem:

Prototype a shelter that will keep the family cool on a deserted island

Design Requirements for class:

They'd be testing their design with a cup of water and a heat lamp.



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