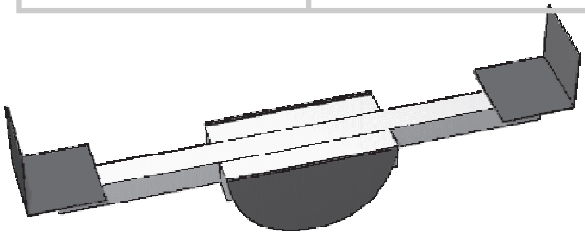
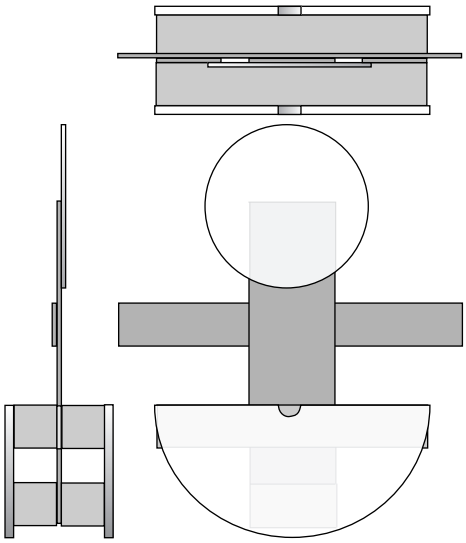
DESIGN BRIEF - SEESAW

ES					
	TECHNOLOGY TECHNOLOGY SCIENCE	Knowledge & understanding Skills in designing & making K & U - Energy and forces	Needs Preparing Properties of energy	Resources Carrying out Conversion of energy	Processes Reviewing Forces *push/pull, friction,air resistance*





The children are asked to create a simple model seesaw using the method experienced when making the rocker. The illustration shows what may be done. You could have them raid the scrap box for things to use for the seats.
They will probably need to balance their seesaws after they are made. Small pieces of wood glued under the main spar work well.

The seesaw could be used as simple scales - which is heavier?

Questions for the children
Did you keep your rocker a little man with a big red nose?
Did you make something else, a little sailing ship perhaps?

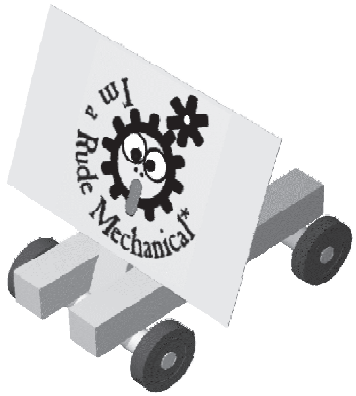
The model rocks back and forth. when you tilt it over and let go it stands up again, but not before passing upright and tilting the other way. It is a little like a seesaw. Could you design and make a toy seesaw?

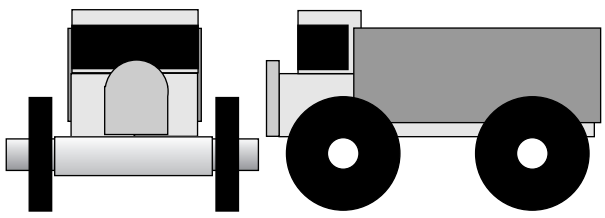
Could you make some little seats. How many do you need? Two?
Could there be more?
Should there be handles of some kind so that the riders could hold on?
Perhaps you have some toy figures or soft toys that could play on the seesaw.

It should stay level when it's at rest. If it doesn't could you put it right?
You could add little blocks of wood or plasticene or. . . . ?
. . . but where would you put them?

DESIGN BRIEF - LAND YACHT

ES					
	TECHNOLOGY TECHNOLOGY SCIENCE	Knowledge & understanding Skills in designing & making K & U - Energy and forces	Needs Preparing Properties of energy	Resources Carrying out Conversion of energy	Processes Reviewing Forces *push/pull, friction,air resistance*





The monster truck needs to be either pushed along or, with a thread fastened, pulled along.
It will roll down a slope though, powered by gravity.
If it had something to act as a sail we should be able to blow it along. Maybe we could arrange for the wind to move it.

The task is to design and make a wind-powered vehicle, using the skills acquired when making the truck.

STAGE ONE
Should it be bigger? How could we prevent it been blown over?
Heavier?
Larger 'footprint'?
What could we use as a sail, and how would it be fastened?
Size of wheels?

STAGE TWO
Design and build a 'land yacht'.

STAGE THREE
Trying it out. How could we test it, and how could we compare its performance with others?
Fair testing - use a hair-dryer or electric fan. Try it on a windy day.
Rough track or smooth track?