

Trundle Wheel

Name(s): _____

What sort of machine can you invent that could measure a long jump?
 Let's find out!



Build the Trundle Wheel

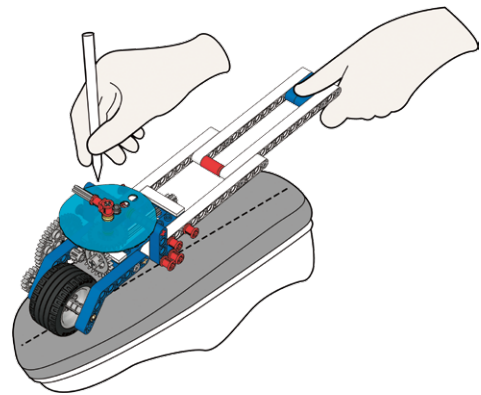
(All of book 5A and book 5B to page 6, step 11.)

How many shoes wide is your desk?

My answer: _____

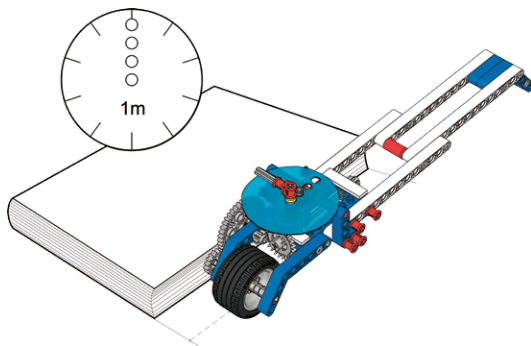
How many shoe lengths will fit on your dial?

My answer: _____



Measuring objects

- Collect three more objects shorter than 1 m (≈ 1 yd)
- Estimate the length of each
- Measure with the trundle wheel
- Measure with a ruler



	My estimate	My trundle reading	My ruler reading
Pen	cm (\approx in)	cm (\approx in)	cm (\approx in)
Pencilcase	cm (\approx in)	cm (\approx in)	cm (\approx in)
	cm (\approx in)	cm (\approx in)	cm (\approx in)
	cm (\approx in)	cm (\approx in)	cm (\approx in)
	cm (\approx in)	cm (\approx in)	cm (\approx in)

Doing the long jump!

- Build your model to page 12, step 11
- Add the 3 m (≈ 3 yds) dial to the trundle wheel
- Predict and then measure your long jump
- Do this three times



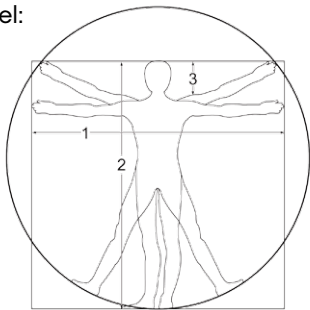
	My prediction	My measurements
Jump 1	cm (≈ in)	cm (≈ in)
Jump 2	cm (≈ in)	cm (≈ in)
Jump 3	cm (≈ in)	cm (≈ in)

In what ways is a trundle wheel better than a ruler?

My answer: _____

Leonardo's Magic Body Facts

Leonardo's Wheel:



	My estimate	My trundle reading
Arm span (1)	cm (≈ in)	cm (≈ in)
Height (2)	cm (≈ in)	cm (≈ in)
Head (3)	cm (≈ in)	cm (≈ in)

My Amazing Trundle Machine!

Draw and label your creative design for measuring distances. Explain how the three best parts of your amazing machine work.