



PAT Inquiry and Problem Solving in STEM Contexts

Test and item difficulty



CONTENTS

Difficulty of the PAT STEM Contexts tests	1
PAT STEM Contexts Middle Years A	2
PAT STEM Contexts Middle Years B	3

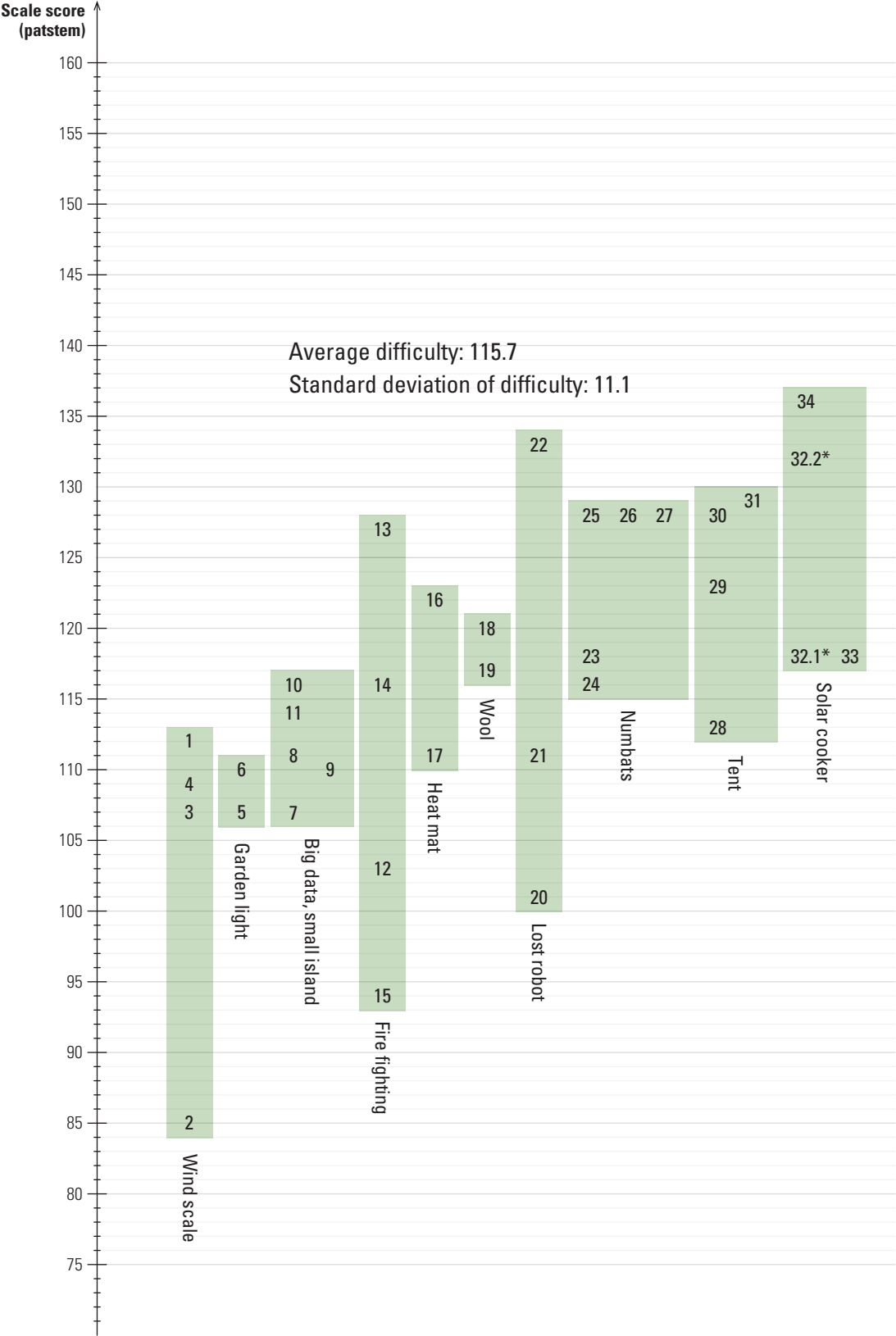
Difficulty of the PAT STEM Contexts tests

Through the Rasch measurement analyses that were carried out, it is possible to report the mean difficulty of the items in each of the tests in scale score units. These mean item difficulties – or test difficulties – are shown together with their standard deviations in the table below.

PAT STEM Contexts tests	No. of items	Mean item difficulty	Standard deviation
Middle Years A	34	115.7	11.1
Middle Years B	34	124.1	10.7

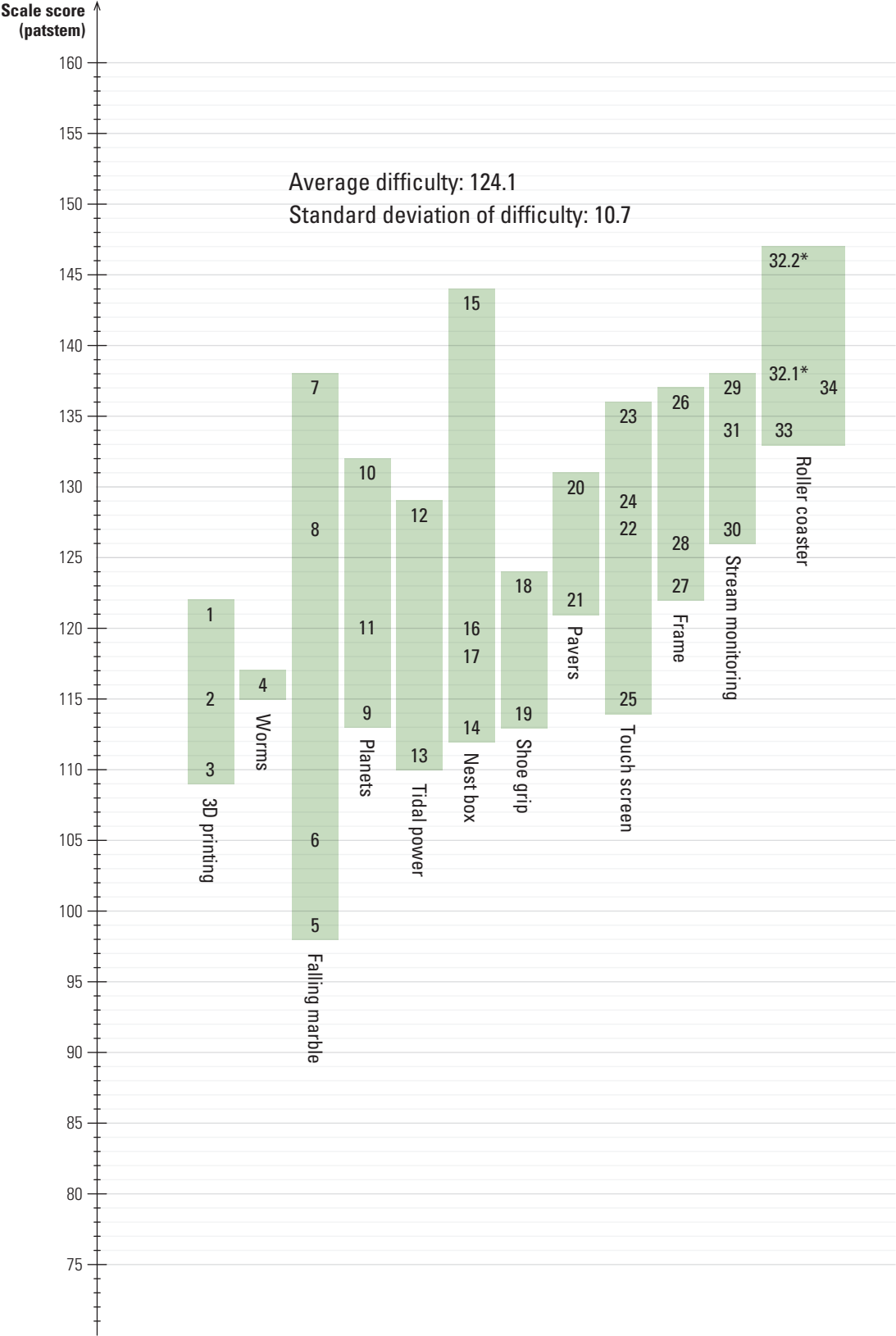
The locations of the PAT STEM Contexts items on the measurement scale are shown on the following pages. Items have been placed in shaded blocks according to the unit to which they belong. Each block illustrates the range of item difficulties within a given contextualised unit, consisting of two or more test items. The item number labels within each block identify the items belonging to the unit. Overlap in the difficulty of items and units, as well as an overall progression in difficulty over the course of the tests, can be clearly seen.

PAT STEM Contexts Middle Years A



* Item 32 is a partial credit item.
32.2 represents the difficulty of scoring 2/2 on this item.
32.1 represents the difficulty of scoring 1/2 on this item.

PAT STEM Contexts Middle Years B



*Item 32 is a partial credit item.
32.2 represents the difficulty of scoring 2/2 on this item.
32.1 represents the difficulty of scoring 1/2 on this item.