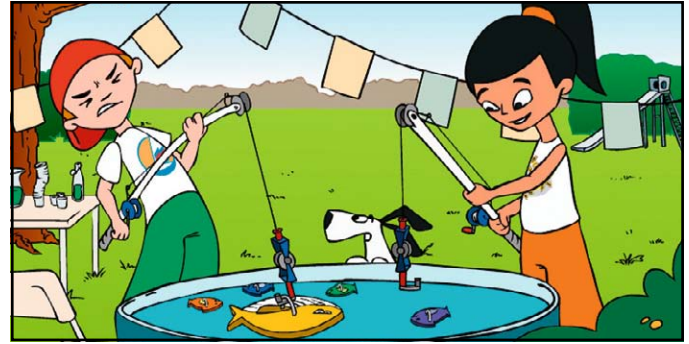


Fishing Rod

Name(s): _____

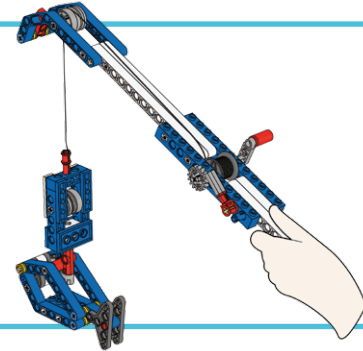
How can we make an exciting fishing device for Jack and Jill and land a big fish?
 Let's find out!



Build the Fishing Rod (including pulley block) and fish

(all of book 2A and book 2B to page 10, step 19).

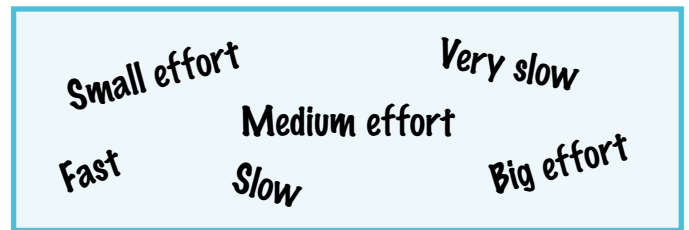
- Make sure the reel and pulleys spin as freely as possible.



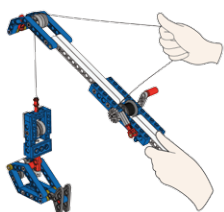
Which features of your rod make it easier to land a big fish?

Predict and test:

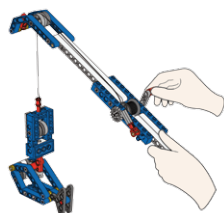
- How much **effort** you need to lift the fish each time?
- How much **time** you need to lift each fish?
- Which is the **fastest** reel?
- Which is the **slowest** reel?
- Try using the ratchet.



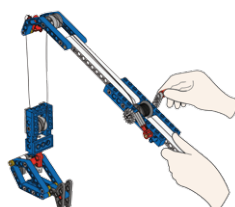
Tip: Write these words in the boxes.
 You can use them more than once.



– by hand and with **one** fixed pulley



– with reel and **one** fixed pulley



– with reel and **two** pulleys;
 one fixed and one movable pulley

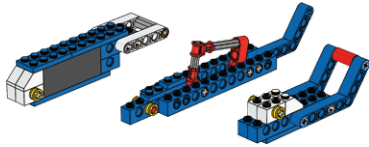
	My prediction	What happened?	Actual speed

Block and Tackle

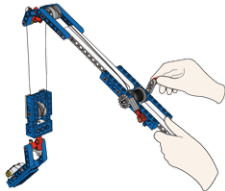
A block and tackle is a system of pulleys that is used to lift very heavy objects with a minimum of effort.

Design and make your own Crazy Fishing Game

Build a variety of 'crazy fish' as shown. Invent more fish of your own.



Hook them and see which are easy and which are more difficult to catch. Catch as many 'fish' as possible in the shortest time.



Agree on rules and a 'scoring system' for your catch. Which designs would trigger a higher score if a fish is landed?

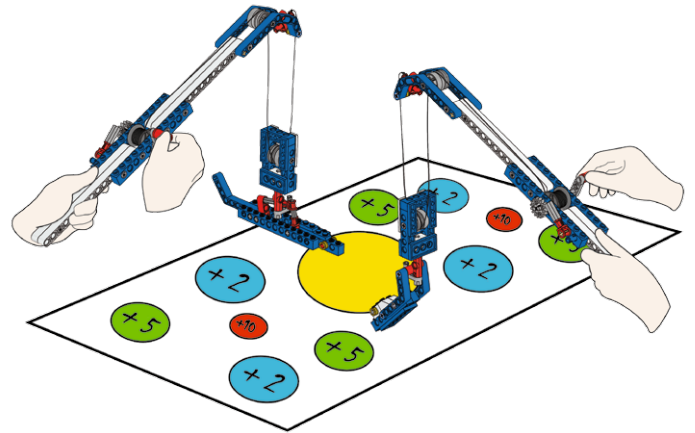
Play a game 'against the clock'. What score did you get in 60 seconds in attempts 1, 2, and 3?

1	2	3

Extra challenge: Sorting Fish

Design a game board with different sized targets or "baskets" in which to place the fish. Work out additional scores for successfully landing a fish in a basket.

Ask another team to join in the great 'Fishing Game'!



My Fishing Rod

Draw and label your very best rod design. Explain how the hook, crank, and pulleys work.