

TOY TAKEAPART EXTENDED ACTIVITY

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VISIT [HTTP://BIT.LY/TAKE-APART-WORKSHEET](http://bit.ly/take-apart-worksheet)

PART I: BEFORE YOU TAKE ANYTHING APART

Before you start, take a photograph of your toy and email it to <email>. Then set up a cup to collect your screws. You will need them later! Look under your toy or near the battery pack to find the information below. You may not find every answer there, but answer what you can!

1. What is the name of this toy? If no name is present, describe it here.
2. What does it look like this toy does? Make noise? Light up? Move? What else?
3. Who manufactured this toy (e.g., Mattel, VTECH, FisherPrice)?
4. What is the trademark date stamped on the toy?
5. In what country was this toy manufactured?

Is there a patent number on the toy? If so, write it down here.]

PART II: MID-DECONSTRUCTION

Have each team member time the other. How long does it take Person A to completely screw in one screw?
_____ How about Person B? _____

Grab scrap paper or some sticky notes and use them to create annotations around your partially-deconstructed toy. Consider cool things you have noticed, questions you have, or aha moments. When you are done, take a photo of your annotated work-in-progress and send it to <email>.

PART III: AFTER TAKING A TOY APART

Do another round of annotation, labeling the parts you recognize.

Snap a photo and email it to <email> .

Did you have time to remove all screws? YES / NO

In total, how many screws did you remove? _____

CONTINUED ON REVERSE

PART IV: ANALYSIS AND REFLECTION

What did you learn from taking this toy apart?

What will you do with the pieces you have taken apart?

Look for the recycling symbol on the plastic parts of toys. Can you find it? What does that mean for the life cycle of the toy after you are done with it today?

If you know the name of your product, search a big store website like Target.com, Walmart.com, or Amazon.com. If the product is still being sold, write the price here. If it is not being sold, use the description you created in Part I to search for a similar product. Write the retail price here: _____

Let's calculate how long it would take someone just to screw this toy together. Multiple the number of seconds from each person in Part II by the total number of screws from Part III.

Total seconds required for Person A: _____

How many minutes is that? _____ (total number of seconds divided by 60)

How many hours is that? _____ (total minutes divided by 60)

Total seconds required for Person B: _____

How many minutes is that? _____ (total number of seconds divided by 60)

How many hours is that? _____ (total minutes divided by 60)

Look up your state's minimum wage and write it here: _____. How much would you have earned to make this toy? Multiply your total hours from above x the minimum wage.

Wages for Person A: _____ Wages for Person B: _____

Retail prices are usually half (50%) of sales prices. Divide the retail (selling) price in two to determine how much the factory received for manufacturing the toy (the wholesale price). Write it here _____.

Compare the wholesale price to the wages. Do you think this toy could be manufactured in your state or city if the total cost of components was \$3? \$5? \$10? Explain why or why not.

Consider that there is a trade war brewing between the U.S. and China that could raise the price of products brought over from China. Toys are not currently on the list for consideration. Think about these statistics:

- The U.S. imports over \$20 billion worth of toys from China annually.
- According to the U.S. Commerce Department, almost 91% of toys sold in the U.S. are made in China.
- The toy company Hasbro is already planning to move some toy production out of China to hedge against these potential tariffs.
- If the proposed tariffs were to include Chinese toys, what might the impact be on your household? On businesses and entrepreneurs in your region? What recommendations would you make to your political leaders?
- Would you have a different opinion if you lived in Michigan, where American Plastic Toys has its headquarters?

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