

Appendix A: Deconstruction of an Object Worksheet

Deconstructing an Object

What you need...

- Item or toy that no longer works (preferably with moving parts and possibly a motor)
- Tools to take it apart
- A bowl or bag to keep parts
- Device with Camera (optional)

1. Record how your object works when functioning properly. (Written, oral, or video blog)
Does it move something? Does it make noise? Be as specific as possible.

2. What is not working on your object...

Which part that you identified previously does not work?

If it is not in your previous list, then possibly you need to add it.

Is the problem visible?

3. What are some possible solutions to your problem?

If it's visible, do you need a new part because it has been broken?

Does it move at all?

Does the motor make any noise?

Are the batteries missing?

4. *Breaking down your object...*

Are there screws holding the object together?

Anything else keeping it together? If so, what?

What tools will you need?

Gather the tools together so you can start working. It is important that you document the steps to taking your item apart. Use the table below to record your steps. Taking pictures at each step helps you to remember where parts go. Get a bowl or bag to place your parts in as you take them apart.

Deconstruction Steps

Step 1	Description
Picture	
Stop and see if your solution will still work. Is there a different problem now that you can see inside your object? If so, do you need to choose a different solution?	
Step 2	Description
Picture	
Step 3	Description
Picture	
Step 4	Description
Picture	
Step 5	Description
Picture	

5. Now that you have it apart, can you fix the problem?

Do you have the supplies to fix the problem?

Is it worth the time and materials to fix?

If so, get them out. Try to fix the problem!

6. *Reconstructing the object*

Now you need to put it back together.

Complete your documented steps in reverse order. (If you weren't able to fix it, just see if you can get it back together.)

Step 1	Description
Picture	
Step 2	Description
Picture	
Step 3	Description
Picture	
Step 4	Description
Picture	
Step 5	Description
Picture	

Does your item work?

If not, you will need to start the process over again (not today).

7. Share your success!

We want to see your object and your process. Use the assigned slide deck to insert pictures, videos, and descriptions of your success. We can share these out with the group but it is not necessary to share if you do not want to at this time.

Survey Questions...

1. What did you learn about today that you did not learn before?
2. What did you like about what you learned today?
3. Was there anything you did not like about today?
4. What would you like to learn more about?