

## **Hands-On Design Challenge Kits (English and French)**

***August 31, 2021 (Dawn Anderson & Joan Pearce)***

### **Introduction:**

- Cycle of Design Challenges (Dawn)
- Walk around room to see samples of LRC Design kits (Joan)
- Sample of Water Purification by Design 39 campus in San Diego): (Dawn)

<https://hubblecontent.msit.osi.office.net/contentsvc/videohostpage/video?env=msit&lcid=1033&syslcid=4105&uilcid=1033&app=3&ver=16&build=16.0.13426&platform=Win32&streamssso=true&appCorrelation=6C29364A-0872-45C6-B162-0A4CA06C3573&url=https%3A%2F%2Fwww.youtube.com%2Fembed%2FkfBa2AdjRB4%3Ffeature%3Doembed>

### **Where to find Sustainability and Design Challenge resources online:**

#### **The LRC section of learn71:**

##### **The MakerSpace/Design Thinking Page:**

<https://learn71.ca/makerspace-design-thinking/>

This is the planning sheet we are using in the workshop (also posted there):

<https://learn71.ca/wp-content/uploads/2022/06/Design-Placemat-Sheet-Dawn-Anderson.pdf>

##### **The English Theme Lists Page:**

<https://learn71.ca/english-theme-lists/>

Direct Link to the Makerspace List: <https://learn71.ca/wp-content/uploads/2021/11/Booklist-Joan-Maker-Movement.pdf>

Direct Link to the Sustainability: Consumer Culture (Intermediate) List: <https://learn71.ca/wp-content/uploads/2021/10/Booklist-Joan-Sustainability-Consumer-Culture.pdf>

Direct Link to the Sustainability: Food Security (Intermediate) List:

<https://learn71.ca/wp-content/uploads/2021/10/Booklist-Joan-Sustainability-Food-Security.pdf>

\*There are several more lists. Be sure to check the whole English Theme List page.

**The LRC “News” button** in the LRC section of learn71 shows a list of “New LRC Sustainability Kit”s and “UN Sustainable Development goals Resources”:

<https://learn71.ca/lrc-news-2021/>

Direct link to the UN Sustainability list: <https://learn71.ca/wp-content/uploads/2021/12/UN-Sustainability-Goals.pdf>

### **“LRC Resource Lists” in Destiny**

Log into your school library, click on Catalog, then Resource Lists, then scroll down to “LRC UN Sustainable Dev’t Goals” and click on it:

The entire Resource List:

<https://sd71.follettdestiny.ca/cataloging/servlet/presentviewmylistsform.do?l2m=Resource%20Lists&sideLink=true>

Direct link to the UN Resource list:

<https://sd71.follettdestiny.ca/cataloging/servlet/presentbooklistform.do?listID=12019883>

Your site-based TL may have also made some local school lists of resources in Destiny.

### **Other LRC Resources Accessed Through Searching in Destiny:**

Log into your school library and do a LRC search for “Makerspace”

Thes kits in the image below have a wide variety of books for inspiration. The Leonardo kits also have models of his inventions:



### Entrepreneurs, gr. 4-7

[Details](#)

Call #: KT 338.7 ENT

Published 2018

Interest Level: 3-6



### Leonardo da Vinci : artist, inventor, and scientist, gr 4-7 - set 1

[Details](#)

Call #: KT 709.2 LEO

Published 2019

Interest Level: 3-6



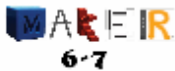
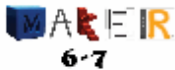
### Leonardo da Vinci : artist, inventor, and scientist, gr 4-7 - set 2

[Details](#)

Call #: KT 709.2 LEO

Published 2019

Interest Level: 3-6

|                                                                                     |                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Maker kit : explore, imagine, create, share : grades 4-5, set 1</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: 3-6   |
|    | <b>Maker kit : explore, imagine, create, share : grades 4-5, set 2</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: 3-6   |
|    | <b>Maker kit : explore, imagine, create, share : grades 4-5, set 3</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: 3-6   |
|    | <b>Maker kit : explore, imagine, create, share : grades 6-7, set 1</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: 5-8   |
|   | <b>Maker kit : explore, imagine, create, share : grades 6-7, set 2</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: 5-8  |
|  | <b>Maker kit : explore, imagine, create, share : grades K-3, set 1</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: K-3 |
|  | <b>Maker kit : explore, imagine, create, share : grades K-3, set 2</b> <a href="#">Details</a><br> Call #: KT 620 MAK<br>Published 2017<br>Interest Level: K-3 |

All of the “official” **Design challenge** kits have this format:

|                                                                                     |                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Design challenge : a house for the three little pigs</b> <a href="#">Details</a><br> Call #: KT 620 DES HOU<br>Published 2017 |
|  | <b>Design challenge : a sturdy nest</b> <a href="#">Details</a><br> Call #: KT 620 DES STU<br>Published 2017                     |

**Where to find ADST Resources:** (Dawn)

<https://www.comoxvalleyschools.ca/career-programs/makerspace-materials-and-teacher-resources/>

Kara Dawson, SDG's and Minecraft Challenge: <https://learn71.ca/minecraft-challenge/comox-valley-schools-minecraft-resources/>

**Walk Through a Design Challenge LRC Kit & SDG connections**

- “Squirrel-proof Bird Feeder” (Joan show kit. Dawn lead the activity)
- Use a student placemat and teacher tip sheet.
- Stress students will need to research squirrels and birds etc. in order to inform their designs. Encourage collaboration with site-based TLs to explore research databases, searching for non-fiction books in Destiny, Sora etc.
- Note: funny youtube clip: <https://www.youtube.com/watch?v=hFZFjoX2cGg>
  
- Apply UN Sustainability Goals (SDG's) to Design Challenges, Grade-based, think tank - integrates place-based as well as global impact (Dawn)
- SDG's - next steps after Design Challenge kits- weaves in Careers Curriculum and SDG's

<https://sdgs.un.org/goals>

- Teacher planning chart review – let them know that I will be leading sessions this year that cover this in depth and allow for practice.
- Sir Ken Robinson Clip (Dawn)

<https://www.youtube.com/watch?v=IUjYMrGreRw>

- Participants brainstorm design challenges related to their grade and potentially school site.

## **Round Up**

Participant thoughts and feedback.

## French Resources

*Prepared by Sarah Coull*

### Helpful Sites:

<https://www.raisingglobalkidizens.com/tag/sustainable-development-goals/>

<https://static1.squarespace.com/static/576b3f0f2994cad8067a7e2e/t/5bd5429bf9619a3526852292/1540702876155/Global+Books+by+SDGs.pdf>

### Some essentials:



### Bibliography:

[https://learn71-my.sharepoint.com/:w:/g/personal/sarah\\_coull\\_sd71\\_bc\\_ca/Eaj-2YWoTRpEu5y29IfSlzABrqDgQk1E9WDT2wmkO7CpJg?CID=454E07C6-8DEA-4545-AC61-72B1529A40EB&wdLOR=c5EDE1D7F-A541-4200-A92A-8BD252488C8E](https://learn71-my.sharepoint.com/:w:/g/personal/sarah_coull_sd71_bc_ca/Eaj-2YWoTRpEu5y29IfSlzABrqDgQk1E9WDT2wmkO7CpJg?CID=454E07C6-8DEA-4545-AC61-72B1529A40EB&wdLOR=c5EDE1D7F-A541-4200-A92A-8BD252488C8E)

Lien direct à la liste UNO objectifs de développement durable: <https://learn71.ca/wp-content/uploads/2022/06/UNO-Objectifs-du-dev-durable-Liste.pdf>

Lien direct à la liste Makerspace et les inventions: <https://learn71.ca/wp-content/uploads/2022/06/Makerspace-et-innovations.pdf>

Lien direct à la liste Protéger notre terre mère: <https://learn71.ca/wp-content/uploads/2022/06/Proteger-notre-terre-mere.pdf>

**The French Theme Lists Page:**

<https://learn71.ca/french-theme-lists/>

Lien direct à la liste La gestion de déchets: <https://learn71.ca/wp-content/uploads/2018/07/Book-List-Joan-French-Waste-Management.pdf>



