Lectern

re article feedback

A lectern is a block used to display a book and quill or written book for reading. Turning a page triggers a redstone pulse. It also serves as a librarian's job site block.

Contents

Lectern

View all renders

Renewable	Yes
Stackable	Yes (64)
Tool	
Blast resistance	2.5
Hardness	2.5
Luminous	No
Transparent	**JE**: No **BE**: Yes
Waterloggable	**JE:** No **BE:** Yes
Flammable	Yes (30)
Catches fire from lava	Yes
Map color (*JE*)	13 WOOD

Navigation

Obtaining

Breaking

Lecterns can be broken with any tool, but an axe is the fastest. Lecterns drop themselves and the book they are holding.

Block	Lectern
Hardness	2.5
Tool	🪓
Breaking time (sec)[A]	
Default	3.75
Wooden	1.9
Stone	0.95
Copper	0.75
Iron	0.65
Diamond	0.5
Netherite	0.45
Golden	0.35

Legend

- ☐ incorrect tool, drops nothing
- ☐ correct tool, drops nothing or something other than the block itself
- ☐ correct tool, drops the block itself
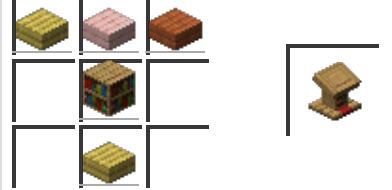- *italicized* can be instant mined

1. These durations ignore other influential factors (e.g., Mining Fatigue) and are measured in seconds. For more information, see Breaking § Speed.

Natural generation

Empty lecterns can generate naturally in village libraries, up to two for some library variants.

One lectern generates as part of each ancient city, in the secret room at the city center.

Crafting

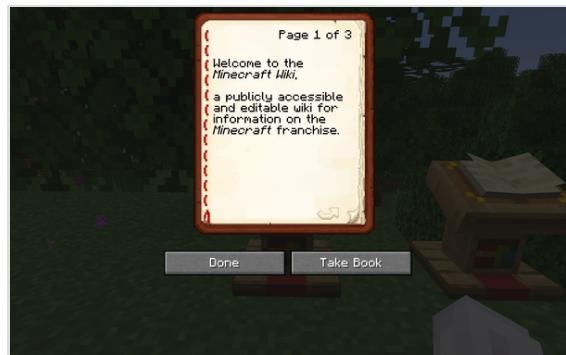| Ingredients	Crafting recipe	[hide]
Any Wooden Slab + Bookshelf		

Usage

Lecterns are the job site block of librarian villagers.

Librarian villagers do not place books into lecterns. They only stare at the lectern from less than a block away as "working".

Holding books

Lecterns can also hold a single book and quill or written book that other players can read at the same time. Right-clicking an empty lectern with a book and quill or written book places it. Right-clicking a lectern that already has a book opens an interface to read the book. Books occupying a lectern can be retrieved through the interface,[Java Edition only] by punching the lectern, [Bedrock Edition only] or by destroying the lectern, even when game rule doTileDrops is false.

The UI when reading a book on a lectern.

Lecterns cannot hold enchanted books or normal books. Instead, right-clicking the lectern with an enchanted book or a normal book does nothing and the book won't be placed.

Profession

> Main article: Job site block

If a lectern has not been claimed by a villager, any nearby unemployed villager (excluding nitwits) has a chance to change its profession to librarian and claim the lectern as its job site block.

Redstone signal

Lecterns holding a book emit a full-strength redstone pulse that is one game tick long (0.5 redstone ticks) when a page is turned. A redstone comparator also records book reading and sends a signal, depending on what page the player is currently on. Because *Bedrock Edition* displays two pages of the book at once, the same signal strength increments require double the number of pages.

In *Java Edition*

In *Java Edition*, a book with only 1 page gives maximum signal strength, however page 1 always gives 1 signal strength if the book contains at least 2 pages.

To calculate the signal strength S of a book with more than 1 page, use the following formula:

$$S = \left\lfloor 1 + \frac{14(P-1)}{M-1} \right\rfloor$$

Where $\lfloor \rfloor$ is the "floor" operation (round down), M is the maximum number of pages the book on the lectern has, and P is the current page number the lectern is turned to.

This is most noticeable when a book has 2 pages where the signal strength is either 1 on page 1 or 15 on page 2.

A book that would step up or down in increments of 1 per page would be 15 pages long.

The following Python program prints all possible pairs of two values to achieve a certain signal strength,

with the first being the page number to be on and the second being the total number of pages.

```python
1    import math
2
3    S = int(input('Enter the
     target signal strength:
     '))  # Desired signal
     strength (1-15)
4    P = 1  # Actual page
     number
5    M = 2  # Max page number
6
7    while M < 25:
8        while S !=
     math.floor(1 + ((14 * (P
     - 1)) / (M - 1))):  #
     Strength formula
9            if P == M:
10               M += 1
11               P = 0
12           P += 1
13
14       print('Possible
     combination (P / M):',
     P, "/", M)
15       P += 1
```

Lectern signal strength by currently open page (*P*) & total book pages (*M*) (In *Java Edition*)

M \ P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
14	1	2	3	4	5	6	7	8	9	10	11	12	13	15	
13	1	2	3	4	5	6	8	9	10	11	12	13	15		
12	1	2	3	4	6	7	8	9	11	12	13	15			
11	1	2	3	5	6	8	9	10	12	13	15				
10	1	2	4	5	7	8	10	11	13	15					
9	1	2	4	6	8	9	11	13	15						
8	1	3	5	7	9	11	13	15							
7	1	3	5	8	10	12	15								
6	1	3	6	9	12	15									
5	1	4	8	11	15										
4	1	5	10	15											
3	1	8	15												
2	1	15													
1	15														

In *Bedrock Edition*

In *Bedrock Edition*, the formula is slightly different. Due to *Bedrock Edition* showing 2 pages at once and counting a change to the book's output only if the highest even numbered page contains information, a redstone comparator treats books with 3 pages the same as those with 1 or 2 pages of information, the same as how *Java Edition* would treat a book with just 1 page.

For 4 or more pages of information use the following formula to calculate signal strength.

$$S = \left\lfloor 1 + \frac{14(P' - 1)}{M' - 1} \right\rfloor$$

In this case M' is half of the maximum page number rounded down, and P' is half of the current highest page number containing data displayed on the book interface, rounded down.

Rounding down is required to eliminate the discrepancy caused by books containing an odd number of pages. For example, a book with 8 pages gives a signal strength of 15 when looking at pages 7-8. A book with 9 pages has a signal strength of 15 when looking at either pages 7-8 and 9-10.

In *Bedrock Edition*, a book that steps up or down in increments of 1 per page turned must be exactly 30 pages long, with information left on page 30.

Fuel

Lecterns can be used as fuel in furnaces to smelt 1.5 items.

Note blocks

Lecterns can be placed under note blocks to produce "bass" sound.

Sounds

Generic

Java Edition:

wood sound type								[hide]
Sound	**Closed captions**	**Source**	**Description**	**Identifier**	**Translation key**	**Volume**	**Pitch**	**Attenuation distance**
	Block broken	Blocks	Once the block has broken	`block .wood .break`	`subtitles .block .generic .break`	1.0	0.8	16
	Block placed	Blocks	When the block is placed	`block .wood .place`	`subtitles .block .generic .place`	1.0	0.8	16
	Block breaking	Blocks	While the block is in the process of being broken	`block .wood .hit`	`subtitles .block .generic.hit`	0.25	0.5	16
	Something falls on a block	*Entity-Dependent*	Falling on the block with fall damage	`block .wood .fall`	`subtitles .block .generic .fall`	0.5	0.75	16
	Footsteps	*Entity-Dependent*	Walking on the block	`block .wood .step`	`subtitles .block .generic .footsteps`	0.15	1.0	16

Bedrock Edition:

	wood sound type						[hide]
Sound	Closed captions [*upcoming: BE 26.0*]	Source	Description	Identifier	Translation key [*upcoming: BE 26.0*]	Volume	Pitch
	Block broken	Blocks	Once the block has broken	`dig.wood`	`subtitles.block .generic.break`	1.0	0.8-1.0
	Block broken	Blocks	When the block is placed	`dig.wood`	`subtitles.block .generic.break`	1.0	0.8
	Block breaking	Blocks	While the block is in the process of being broken	`hit.wood`	`subtitles.block .generic.hit`	0.23	0.5
	Footsteps	Players	Falling on the block with fall damage	`fall .wood`	`subtitles.block .generic .footsteps`	0.4	1.0
	Footsteps	Players	Walking on the block	`step .wood`	`subtitles.block .generic .footsteps`	0.3	1.0
	Footsteps	Blocks	Jumping from the block	`jump .wood`	`subtitles.block .generic .footsteps`	0.12	1.0
	Footsteps	Blocks	Falling on the block without fall damage	`land .wood`	`subtitles.block .generic .footsteps`	0.18	1.0

Unique

Java Edition

	Sounds							[hide]
Sound	Closed captions	Source	Description	Identifier	Translation key	Volume	Pitch	Attenuation distance
	Page rustles	Blocks	When the page of a book is turned	`item.book .page_turn`	`subtitles.item .book.page_turn`	2.0	0.9-1.0	16
	Book thumps	Blocks	When a book is placed on a lectern	`item.book.put`	`subtitles.item .book.put`	1.0	1.0	16
	Librarian works	Friendly Mobs	Randomly while a librarian is working	`entity.villager .work_librarian`	`subtitles .entity .villager .work_librarian`	2.0	0.8-1.2	16

Bedrock Edition:

Sounds							[hide]
Sound	Closed captions [*upcoming: BE 26.0*]	Source	Description	Identifier	Translation key [*upcoming: BE 26.0*]	Volume	Pitch
	?	Sound	When the page of a book is turned	`item.book .page_turn`	?	2.0	1.0
	?	Blocks	When a book is placed on a lectern	`item.book.put`	?	4.8	1.0
	?	Blocks	Randomly while a librarian is working	`item.book.put`	?	4.8	1.0

Data values

ID

Java Edition:

Name	Identifier	Form	Translation key	[hide]
Lectern	`lectern`	Block & Item	`block.minecraft.lectern`	

Name	Identifier	[hide]
Block entity	`lectern`	

Bedrock Edition:

Name	Identifier	Numeric ID	Form	Item ID[i 1]	Translation key	[hide]
Lectern	`lectern`	449	Block & Giveable Item[i 2]	Identical[i 3] (Numeric: -194)	`tile.lectern.name`	

1. ID of block's direct item form, which is used in savegame files and addons.
2. Available with `/give` command.
3. The block's direct item form has the same ID as the block.

Name	Savegame ID	[hide]
Block entity	`Lectern`	

Block states

See also: Block states

Java Edition:

Name	Default value	Allowed values	Description	[hide]
facing	north	east north south west	The direction the lectern is facing. The opposite from the direction the player faces while placing the lectern.	
has_book	false	false true	If the lectern currently has a book.	
powered	false	false true	If the lectern is currently outputting a redstone signal.	

Bedrock Edition:

Name	Metadata Bits	Default value	Allowed values	Values for Metadata Bits	Description	[hide]
minecraft:cardinal_direction	Not Supported	south	east north south west	Unsupported	The direction the lectern is facing. The opposite from the direction the player faces while placing the lectern.	
powered_bit	0x4	false	false true	0 1	If the lectern is currently outputting a redstone signal.	

Block data

A lectern has a block entity associated with it that holds additional data about the block.

Java Edition:

> *See also: Block entity format*

Block entity data

Tags common to all block entities

—   **Book**: The book item, without the slot tag, currently on the lectern, may not exist.

      A single item stack

—   **Page**: The page the book is currently on, starting from 0, does not exist if there's no book. Value is clamped between 0 and the last page - 1.

Bedrock Edition:

> See Bedrock Edition level format/Block entity format.

History

Development and announcement

August 18, 2012 (https://www.reddit.co m/r/Minecraft/comments/yf5im/suggesti on_storable_books/c5v03bq/?context= 1)	The lectern was an old project of Dinnerbone's. It was meant to be a stand for written books, so they could be easily read. He was well on his way to creating it when he encountered problems and scrapped the idea, but mentioned that he might pick up work on the lectern in the near future.
December 18, 2013 (https://www.reddi t.com/r/Minecraft/comments/1t6qn7/i_a m_dinnerbone_a_minecraft_developer_ ask_me/ce4z2v5/?context=3)	Dinnerbone states in his Reddit AMA that he has revisited lecterns, but scrapped them again as "something about them just didn't feel right".
October 18, 2018 (https://twitter.com/Di nnerbone/status/105291736248212275 2)	Dinnerbone reveals that the lectern is once again in development.

Java Edition

Java Edition			[hide]
1.14	**18w44a**		Added lecterns.
			Lecterns are currently obtainable only from the Creative inventory and have no functionality.
			Lecterns currently have a `BookItem` field, which holds the book item to be displayed. However, this field cannot be set and is not written to the block entity.
			There is a file `lectern.png` which has each texture of the lectern on a large sheet. However, this is unused, as separate files are also present.
	18w45a		The inventory icon of lecterns has been slightly changed from to .
			Removed the unused `lectern.png` file.
			The texture of lecterns has now been changed.
			The bottom texture of lecterns has been changed from to .
	18w47a		The bottom texture of lecterns has been changed, once again.
	18w48a		Lecterns now generate in the updated plains villages.
	18w49a		Lecterns now generate in the updated savanna villages and the new snowy tundra villages.
	18w50a		Lecterns now generate in the updated desert and taiga villages.
	19w02a		Lecterns now have a crafting recipe.
			Lecterns can now be used to hold books.
			Lecterns now emit a redstone pulse when a page is changed.
			Lecterns now use the correct cullface argument for its bottom face.
	?		Lecterns now use some corrected side cullface arguments for the front and back of their base plate.
	19w03a		Certain blocks can no longer be supported by the top of a lectern.[1]
	19w03c		Lecterns now use correct cullface arguments on the left and right hand side of their base plate.
	19w11a		Lecterns now serve as librarian villagers' job site block.
1.17	**21w08a**		Lectern position within the Redstone tab has been moved out of the "essential" group in the Creative inventory.
	21w11a		Tweaked the lectern model.
1.18	**pre5**		The base texture of lectern has now been changed.
1.19	**22w13a**		Lecterns now generate as part of ancient cities.

Bedrock Edition

Bedrock Edition			[hide]
1.10.0	**beta 1.10.0.3**	Added lecterns.	
1.11.0	**beta 1.11.0.1**	Lecterns now emit a redstone pulse when a page is turned.	
1.20.30	**Preview 1.20.20.21**	Increased the hardness and blast resistance of lecterns from 2 to 2.5.	

PlayStation 4 Edition

PlayStation 4 Edition		[hide]
1.90		Added lecterns.
1.91	Lecterns now emit a redstone pulse when a page is turned.	
	Lecterns can now be moved by piston.[*is this the correct version?*]	

Data history

Bedrock Edition			[hide]
1.20.30	**Preview 1.20.30.20**	Lecterns now use the `minecraft:cardinal_direction` block state instead of `direction`.	

Issues

Issues relating to "Lectern" are maintained on the bug tracker. Issues should be reported and viewed there (https://bugs.mojang.com/issues/?jql=project%20in%20%28MC%2C%20MCPE%29%20AND%20%28resolution%20is%20EMPTY%20OR%20resolution%20in%20%281%2C%202%2C%206%29%29%20AND%20%28summary%20~%20%22Lectern%22%29%20ORDER%20BY%20resolution%20DESC).
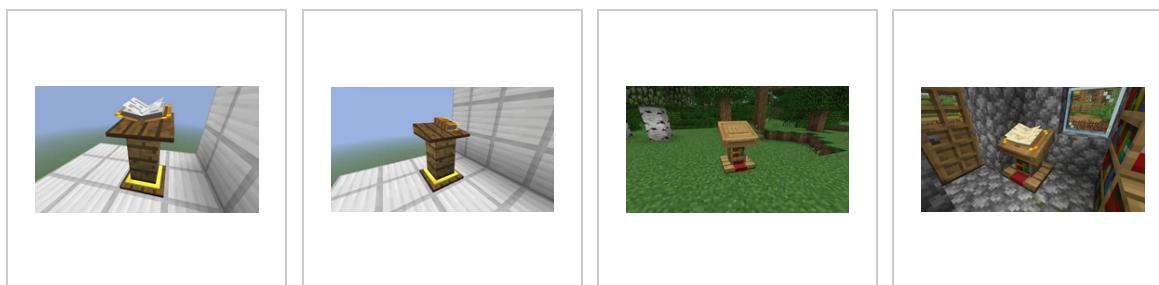
Gallery

Renders

Screenshots

One of the two first images of the lectern.

The second of the first images of the lectern.

The first image of a modern lectern.[2]

A lectern holding a book and quill.

Sunny using a lectern.

In other media

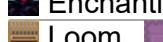A lectern as seen in *A Minecraft Movie*.

References

1. MC-141991
2. "sup" (https://twitter.com/Dinnerbone/status/1052917362482122752) – @Dinnerbone (https://twitter.com/Dinnerbone) (Nathan Adams) on X (formerly Twitter), October 18, 2018

External links

- Taking Inventory: Lectern (https://www.minecraft.net/en-us/article/lectern) – Minecraft.net on November 23, 2023

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