

(Current Work In Progress)

*Everything you see is in development and may be subject to change
Images and text will be added or altered*

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Opening Statement:

This documentation is for the Kanji Scratch Practice Tool developed in the Japanese program at Utah State University. This documentation is to be used in conjunction with scratch projects to understand how it works and to allow changes to what Kanji and meanings are shown. It can also be used to create a whole new Unit and demonstrates the steps to do so. Please see the last page if you have any questions on what I may be referring to or need more explanation.

Scratch is a programming environment developed by the Scratch Foundation (<https://scratch.mit.edu>). The tool described in this manual has been created using Scratch. This manual is not an official Scratch publication. Some illustrations used in this manual include images derived from Scratch. Templates are intended for original or independently created content. Users are responsible for ensuring copyright compliance.

Finding the Template:

To find the template, you can click [here](#) for kanji reading practice, [here](#) for diction-typing practice, and [here](#) for sentence-typing practice. A list of all the units and modes will be found there alongside templates to create your own. After finding the chosen Template project, click on the button titled "Remix". This will take you in the project itself and at the same time give you your own version that can be used to personalize.

Editing and making Changes:

This project was designed to allow teachers and professors to make their own sets of curriculum as simple with touching as little code as possible. This project however is still in development and may require the user to change the code in small places which will be demonstrated if needed.

Changing and Uploading New Kanji images, Sentence Images, Answer images, and Unit Covers

Creating Own Images

To change the kanji used for the project is very simple and quick but does require the user to make their own images. For the current in-use projects, all images were made by opening up the paint app on a computer, then selecting the typing options from tools. We then typed the kanji or hiragana answer on the screen and then took a screenshot of the kanji. This same process was used for making the images for the answers as well and could be used to make new Unit covers if needed.

Changing images

Once you have the images for the project, you are then ready to make the image changes. First locate the work bank in the bottom right of the screen. You then will click what you want to change, whether it is a unit cover, kanji, vocabulary, or sentence image. After clicking the slot you want to change, in the top left of the screen you will find a button that says costumes. Click that to take you to where you will see what will be displayed on screen. Here you can edit the image and also add new by

hovering over the button in the button left and selecting upload image. Each mode has a different structure to it but across all of them, how to upload an image stays the same.

The size of images can also be changed very swiftly. Right above the work bank there is a size option that changes the size of all images in that bank box. This is the easiest way to change all the costumes at once but changing the size of a specific image can also be done by going back to the costumes page, selecting the image you want to change and hitting the purple button in the bottom right that says convert to vector. This will allow you to edit and shape the images to your needs.

Creating New Content From Templates

This is the easiest way to make all brand new content. All the coding is still done and only relies on using images in correct order along with smaller stipulations depending on the mode.

Quick Information

- Starting from the template is not the only option and another option is available called remixing which can be found under the “Remixing” section. This is recommended if you just want to change out a few different pieces of the pre-made content.
- I recommend trying out the pre-made modes to get an understanding of what each mode does and style of learning it is.
- Note that you do not have to finish all the units to have students start learning, you have the option to hide uncompleted units until they are finished. See to the “Hiding Units” section for more info

Kanji Reading Mode

Image Covers

Starting by following the directions above to get your own copy of the template, you first one click on the Cover slots. Here you will want to insert a picture that implies what content will be used. You can either have it sorted by units or by categories like colors, verbs, animals, or whatever fits your course the best.

Main and Answer Images

After you have a cover, you want to go to the kanji section slot that has the same number. Here is where you will upload all the pictures of the kanji that you want to have in the section. Note that order matters so keep that in mind. The amount doesn't matter but we recommend not doing more than 10 as it can make future steps a little more inconvenient but any amount is possible. Depending on how many kanji you are using in the unit, you will need an equal amount of answer options to go alongside it. The answers are labeled with "S" and "A" which correspond to the section and answer number, so "S1 A2" would be the second answer to section 1. The answer number has to match the costume number number as this is the way the answer is shown. If there are too many answers you can delete any extra ones, however if there are not enough answer images, you will have to duplicate. This process will be explained in the "Duplicating Answer Images" section.

Lists

The next step is to fill out the list. Start by finding the bar on the right and scroll down until you see the red section that has a bunch of names of lists. They are sorted by section and each section contains three lists named kanji, meaning, and reading. You will then click the box next to them to display them on the main screen. The Kanji list is optional but can be useful to make sure everything is in the right order. In the meaning list, you will type what that kanji means in English and in the reading list you will type in the hiragana for the kanji.

Once all these steps are completed, you will then have to resize your kanji and answer images so they fit properly on the screen. You can put the kanji image anywhere but we found it best to put it in one of the top corners. The answers will need to be just on the page anywhere, but make sure they don't overlap. This process can be a little annoying as when you try to move the image, it will want to act like you're trying to answer but this can be fixed by removing a block from the code. This is explained in the moving image section. This is the final step and nothing else is needed to make the kanji reading section function.

Sentence Mode

Lists

The sentence mode is changed a little differently from the previous mode. The unit covers remain the same but changing content has a few extra steps. First in this mode, each unit has three lists that correspond to it. They are titled origin list, reading, and sentence. The main one you need to change is the origin list. This will hold the main sentence you are using. The reading list can be the exact same thing as the origin list but it is there

in case Scratch maybe reads some kanji wrong or the pronunciation is a bit confusing. The reading list is what the audio button plays, so if it sounds not correct, you can make changes like doing all hiragana to hopefully fix the problem. You do not have to put anything in the sentence list so you can skip that one entirely.

Sentence Images

Unlike the kanji mode, there are no answer images as this mode focuses on typing. The only images you need to add are the covers and pictures of the entire sentence to show on screen. Regarding the covers, this info is mentioned in the kanji mode under the image covers section. For the sentences, you will need to have the whole sentence or whatever the student needs to type on screen. First select the sentence slot that corresponds to which section you want it in. Then put all the sentence pictures into the costume area in order. If you want to split the sentence up to require students to hit the enter key, that is explained next. If not, by having one image for each sentence, that is all you have to do for the sentence mode.

Separating Sentences

The current model we use has the sentences split into sections to help students get used to hitting the enter button when typing in Japanese. This however is optional. When typing a sentence into the origin list, if you type it in like normal, the answer will be set to the whole sentence. However if you want to break the sentence into parts, by adding a (|), you can separate the sentence into parts. You can add as many as you want and there are no restrictions on where they are. Note that you do not need to add one at the end and punctuation is also not required. If you do choose to split the sentence, you will have to add a corresponding picture for each split. This can be the same picture or as seen in our model, we chose to highlight the section we want our students to type in red. Remember that all images will still have to be in order, so if the first

sentence contains 3 split sections, you will need to have three costume images in order.

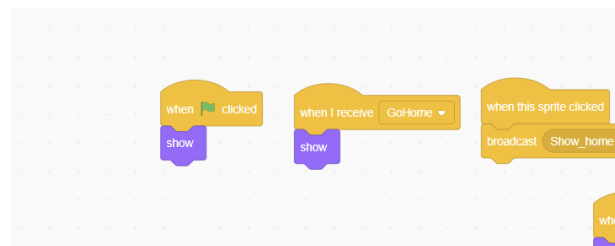
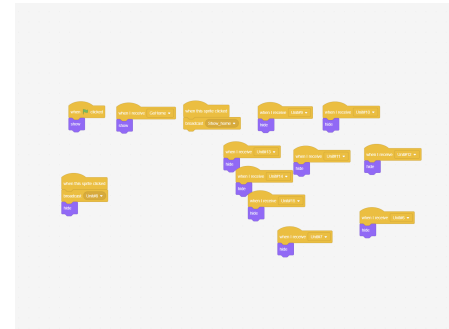
Dictation Mode

The dictation mode is the exact same as the sentence mode with just a different list. You will have to fill out the word list, meaning, and reading list for each section. The word list contains what vocabulary you want and should be the same as the image, meaning is the same as before being the English reading, and reading is the hiragana. Besides that there are no changes and you can look at the sentence mode for any information that is needed.

Tips and Tools For Customization

Hiding Units

While on the main page of the project, direct your attention to the work bank in the bottom right. Here you will find images of the unit covers. To hide them for now, click on the unit you would like to hide. You will then see something that looks like this. You will then look for the two that have a purple piece that says “show”. You will then use your cursor to drag the purple piece off the yellow, disconnecting the two. Note that you don't need to delete anything and would recommend putting the “show” blocks close by them. After, you then want to click the hide icon located on the right. It



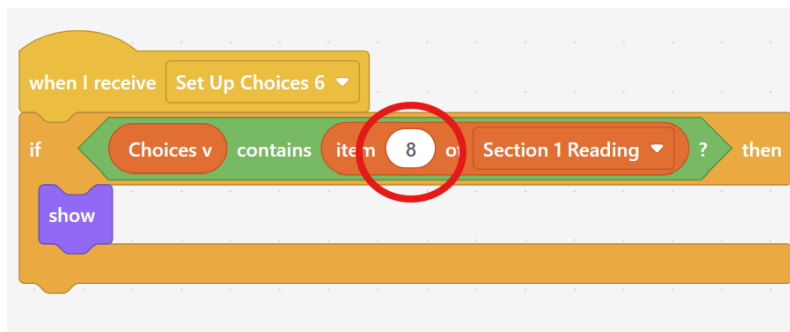
should not show up until you unhide it or put the “show” blocks back.

Moving Images

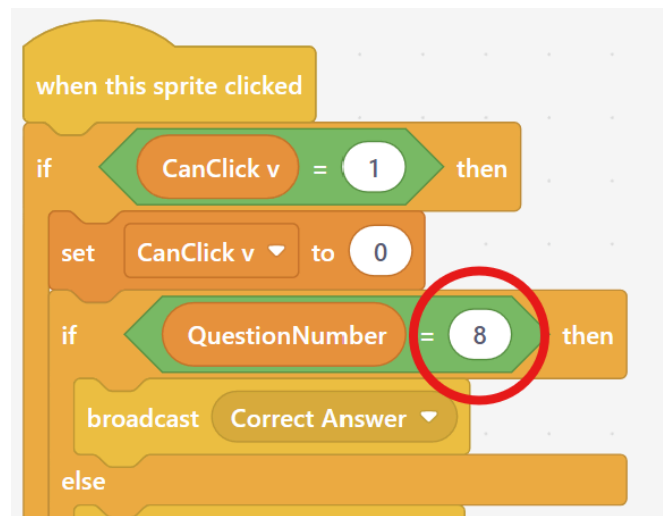
If you want to move images or answers around but if you try, you may notice they either activate something or disappear after being clicked on. To move images, first find them down in the bank. Then, in the code there will be something that says “When this spirit is clicked”. Click on the code block directly below this block and drag it to somewhere else on the plain. Due note that if you drag it off the screen to the left, it will delete so be careful. After disconnecting the blocks, the image should be able to move without any interruptions.

Duplicating Answer Images

To duplicate answer image slots in the kanji mode, you want to find an already existing answer slot from whatever unit you are trying to



increase the size of. You then want to right click on it and hit the duplicate option. This will make a copy of it at the very bottom of the work bank. You then will have to click on the new copy and look



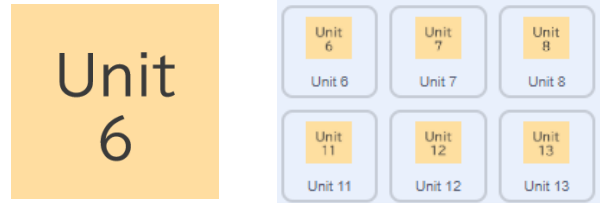
at the code inside. Find these two code block segments. Then you will have to change the number in the red circle to whatever question number you added. For example, if you had eight already

and wanted to make a ninth answer, you would have to duplicate one of the answers in the same section and then change this number to 9.

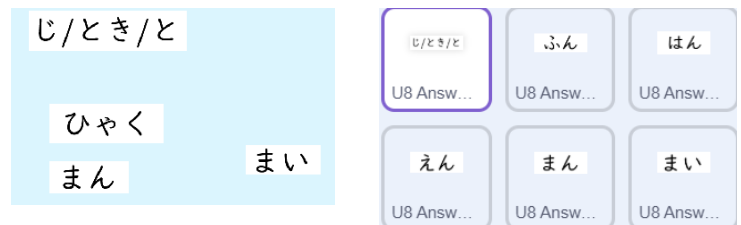
Clarification Page:

This is used to explain extra things and make it easy to understand what the documentation is talking about

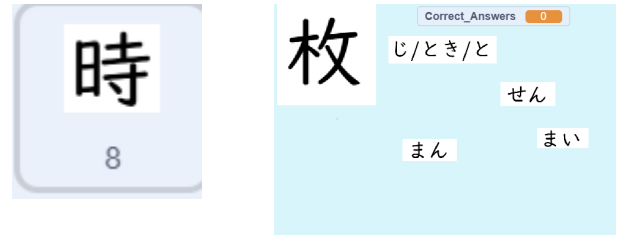
Unit Covers = used in selecting units



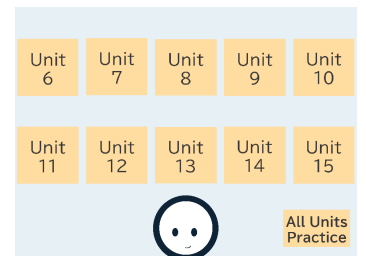
Answer Images = used to click on for answers



Kanji Images = to show students what kanji is for the question



Main Screen terminal = This is what students will see when working



Work bank = Where you will find all the different pieces for the project

