Handwriting
on iPad

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Benefits of Handwriting

Fine motor skills
By increasing neurosensory experiences, handwriting can promote fine motor skill development.

Cognitive development
Handwriting requires mental focus and forethought, which increases cognitive development.

Reading comprehension
Writing words can improve comprehension because handwriting uses the same area of the brain as reading.

Knowledge retention
Writing down information can increase the brain's ability to process and retain that information.

Creativity
Handwriting and drawing can provide the brain more time to process creative ideas.

Spelling
Handwriting doesn't rely on digital spelling and grammar tools used by many word-processing applications.

Dyslexia help
Handwriting promotes word and memory associations, which can help those with dyslexia.

Mental relief
Handwriting can reduce anxiety by providing an outlet for negative or intrusive thoughts.

iPad Blends Handwriting with the Digital World

iPad combined with Apple Pencil or Logitech Crayon offers all the benefits of handwriting with all the benefits of a digital workflow. For example:

Searchable text: Handwriting can be converted to searchable text automatically.
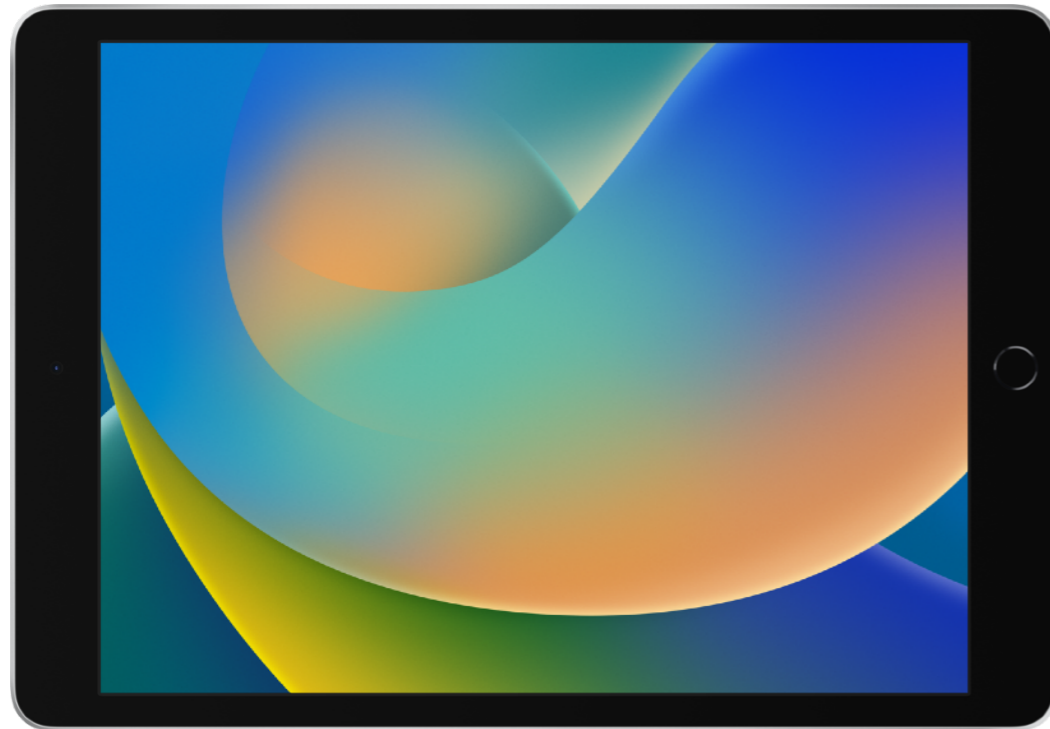
Formatting: Handwriting can be formatted, resized, moved, erased and more.

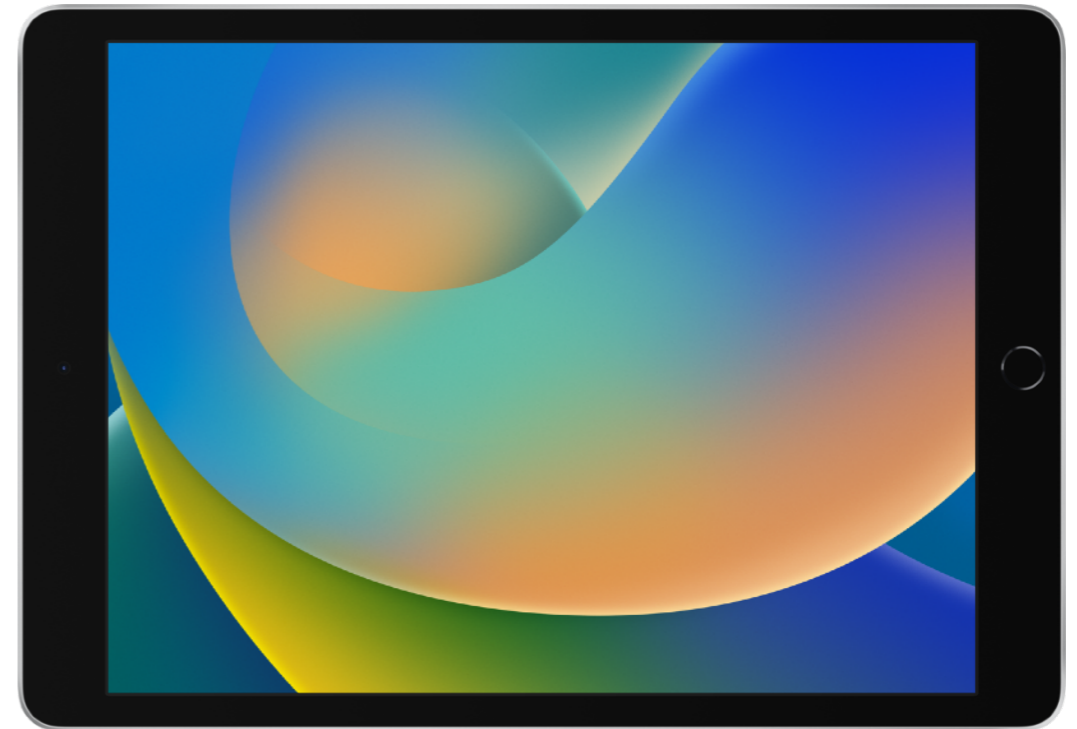**Environments:** Handwriting can be done in many different types of environments.

Apps: Handwriting functionality is available in hundreds of apps on iPad.

Two Great Options

iPad + Apple Pencil

iPad + Logitech Crayon

Note: The exercises in this guide refer to Apple Pencil; however, Logitech Crayon will also work with most of these exercises.

Logitech Crayon – Made for iPad

Logitech Crayon is a versatile, pixel-precise writing and drawing accessory for iPad that works on apps that support Apple Pencil. It provides a writing experience that's as natural as pen and paper, with low latency and high precision. Plus, it was designed with the education environment in mind.

Features

Apple technology: Logitech Crayon is built using Apple Pencil technology.

7.5 hours of writing: It provides up to 7.5 hours of writing time on a single charge and shuts off automatically after 30 minutes of idle time.

Palm rejection: iPad supports palm rejection for natural hand placement while using Logitech Crayon. This means students can stop worrying about their hands and focus on their work.

Smart tip: Logitech Crayon has a smart tip that dynamically adjusts line weight depending on the angle it's used in – just like a regular pencil.

Instant pairing: Press the On button and start writing or drawing on iPad straight away. Logitech Crayon connects to iPad instantly.

Compatible: Logitech Crayon instantly works with hundreds of Apple Pencil-supported apps.

Apple Pencil
Exercises for Educators

Use Apple Pencil

To Solve an Equation in Pages
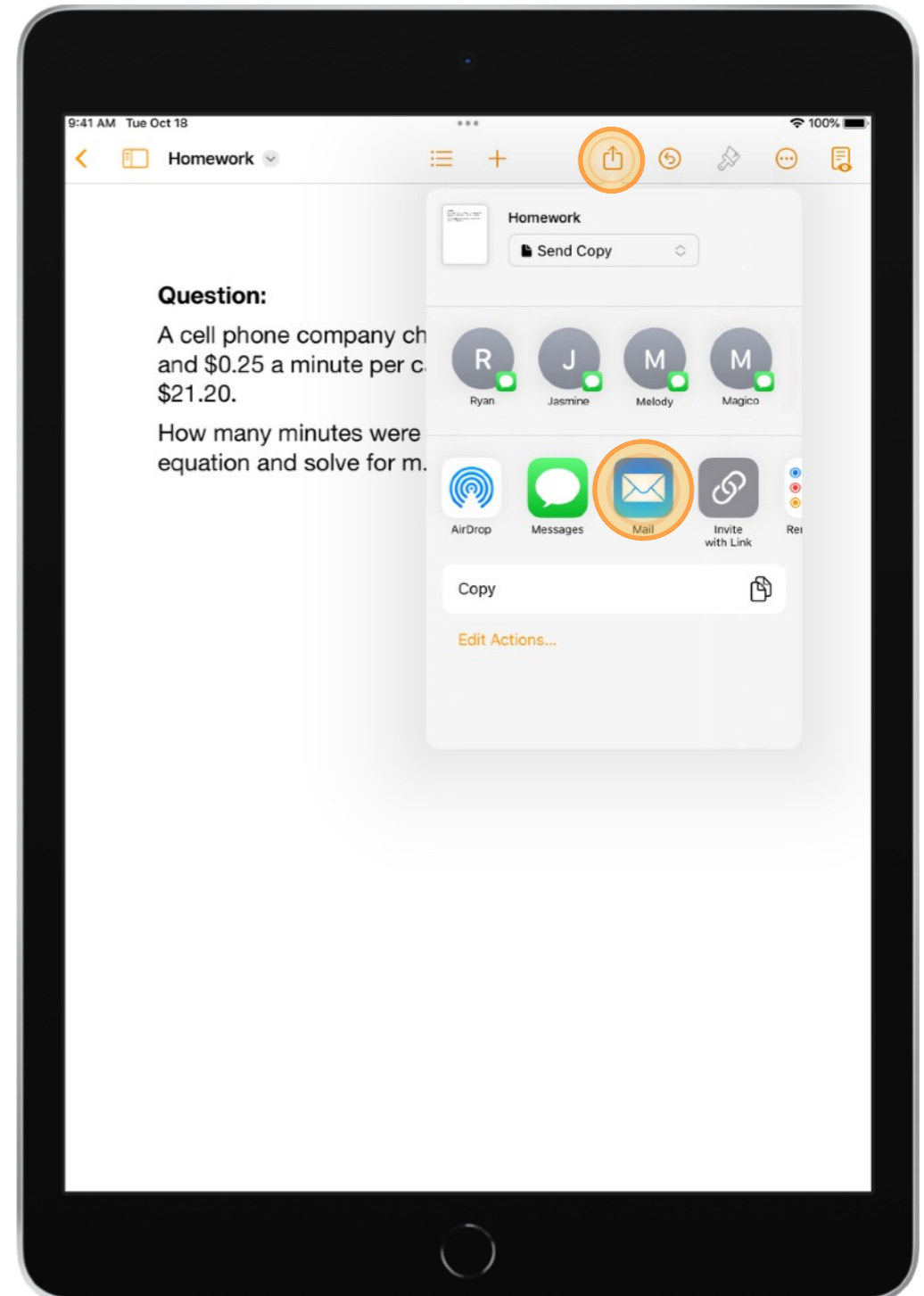
Use Apple Pencil *To Solve an Equation in Pages*

1 Open Pages on iPad and create a new document.

You can rename the document to something such as "Homework" by selecting the title at the top of the page.

2 Write the question (or questions) you want students to solve. You can use the keyboard to type the questions or use the Scribble feature to handwrite the questions and have them automatically converted to text.

TIP: To use the Scribble feature, tap anywhere on the screen with Apple Pencil and select the Scribble tool from the toolbar.

9:41 AM Tue Oct 18   100%

Homework

Question:

A cell phone company charges a monthly rate of $12.95 and $0.25 a minute per call. The bill for m minutes is $21.20.

How many minutes were charged on this bill? (Write an equation and solve for m.)
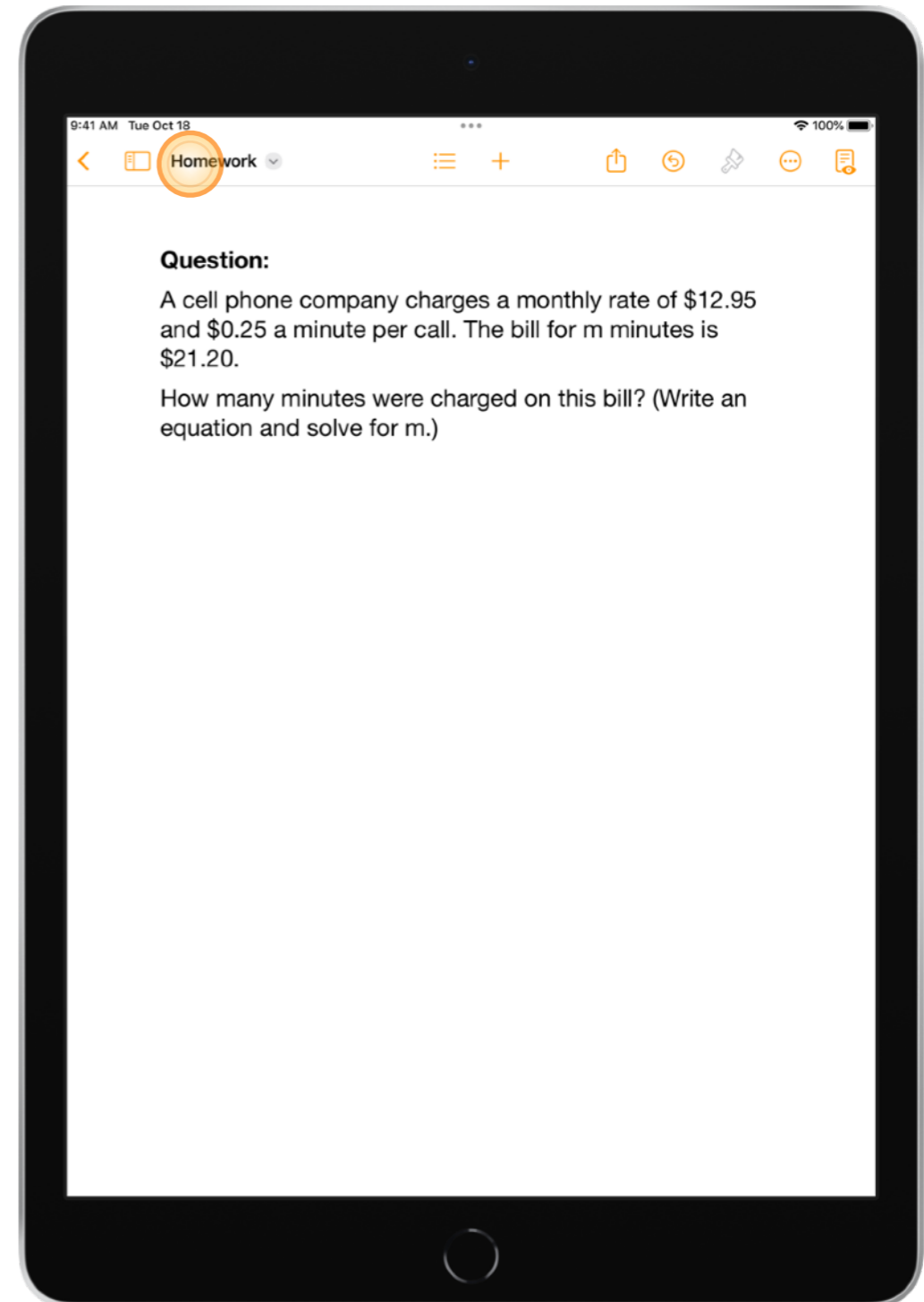
Use Apple Pencil *To Solve an Equation in Pages*

3 Tap Share ⬆ at the top of the screen.

4 After you select Share, you can choose to send the file using AirDrop, Messages, Mail and other apps.

Use Apple Pencil *To Solve an Equation in Pages*

5 Choose the app that you prefer to use when sending assignments to students.
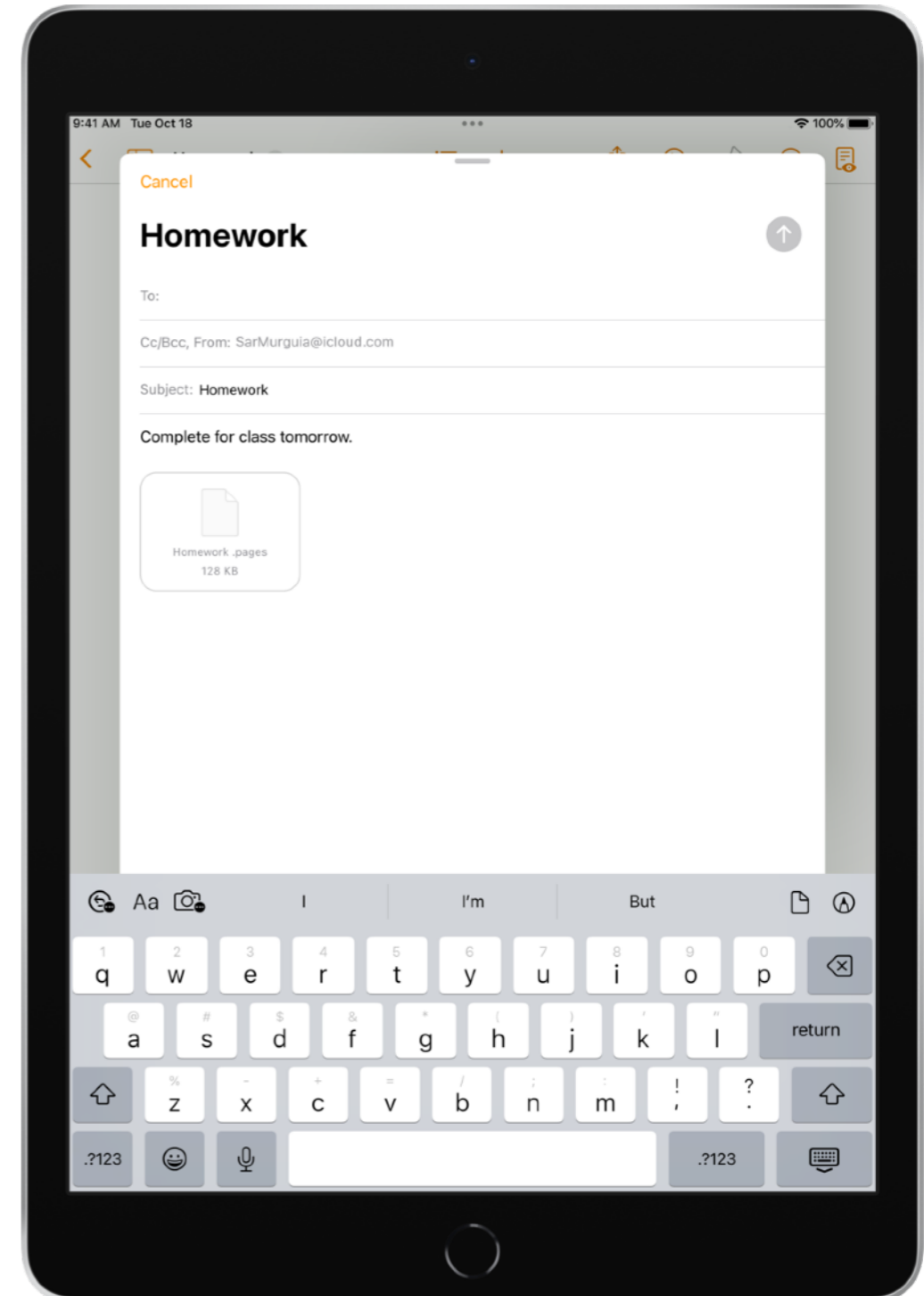
Use Apple Pencil *To Solve an Equation in Pages*

6 Students can open the file directly in Pages. They can tap anywhere on the screen with Apple Pencil to insert a handwriting space, and they can adjust the size of the space if they need more space.

TIP: Use the Pen tool from the toolbar and adjust it to the desired thickness by touching and holding the Pen tool with Apple Pencil.

9:41 AM Tue Oct 18   100%

Done   Add Drawing

Question:

A cell phone company charges a monthly rate of $12.95 and $0.25 a minute per call. The bill for m minutes is $21.20.

How many minutes were charged on this bill? (Write an equation and solve for m.)
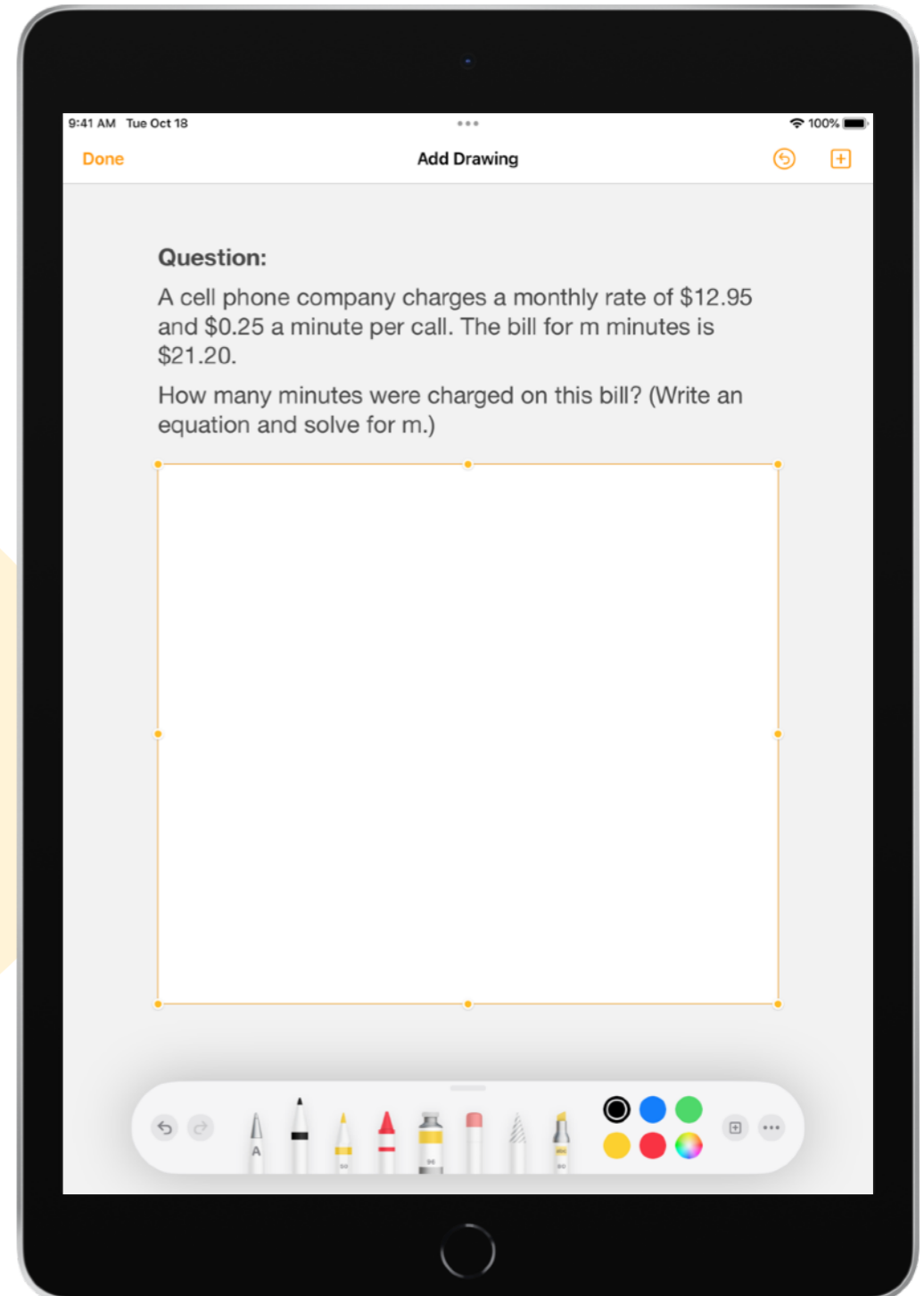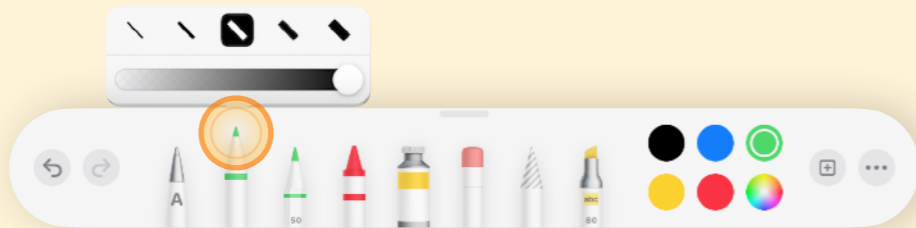
Use Apple Pencil *To Solve an Equation in Pages*

7 Students can solve the problem by hand using methods learned during lessons.

Encourage students to use different colours to show different functions or steps in the process.

8 By tapping Share ⬆ at the top of the screen, students can send the solution back to the teacher.

The teacher can use Apple Pencil to mark, add notes or make corrections on the same document and send it back to the student.

TIP: Remind students that they can use the Eraser tool if they make a mistake.

9:41 AM Tue Oct 18   Done   Add Drawing   100%

Question:

A cell phone company charges a monthly rate of $12.95 and $0.25 a minute per call. The bill for m minutes is $21.20.

How many minutes were charged on this bill? (Write an equation and solve for m.)

$$\$12.95 + \$.25m = \$21.20$$
$$-\$12.95 \qquad\qquad -12.95$$

$$\frac{\$.25m}{\$.25m} = \frac{\$8.25}{\$.25}$$

$$m = 33$$
$$.25\overline{)8.25}$$

minutes Charged 33
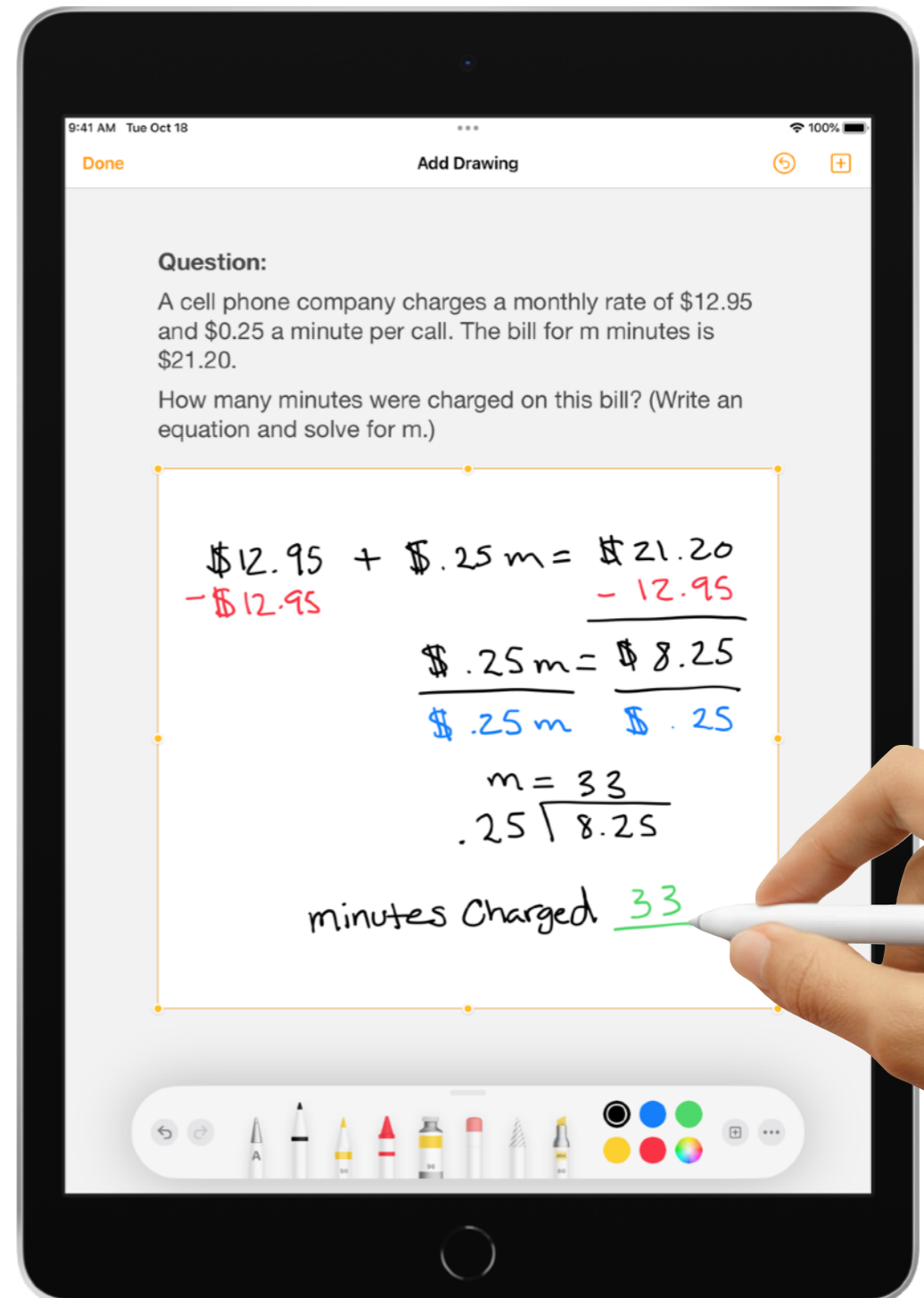
Use Apple Pencil
To Draw the Solar System in Keynote

Use Apple Pencil *To Draw the Solar System in Keynote*

1 Open Keynote. Tap Create a Presentation.
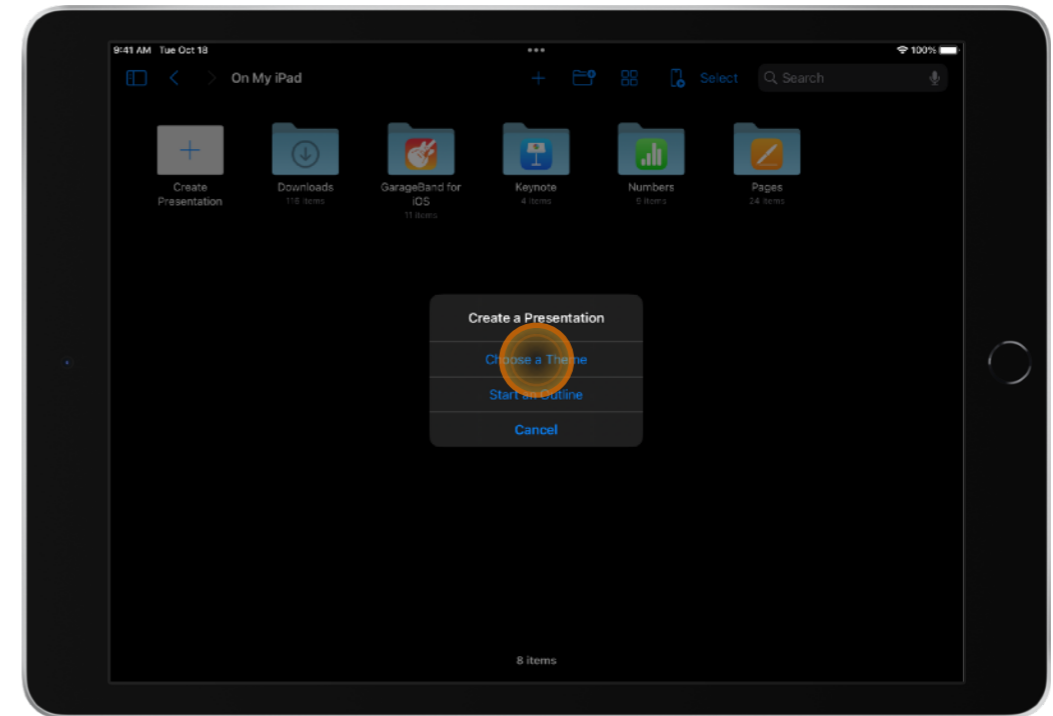
2 Choose from a variety of designer themes, or choose a basic theme.
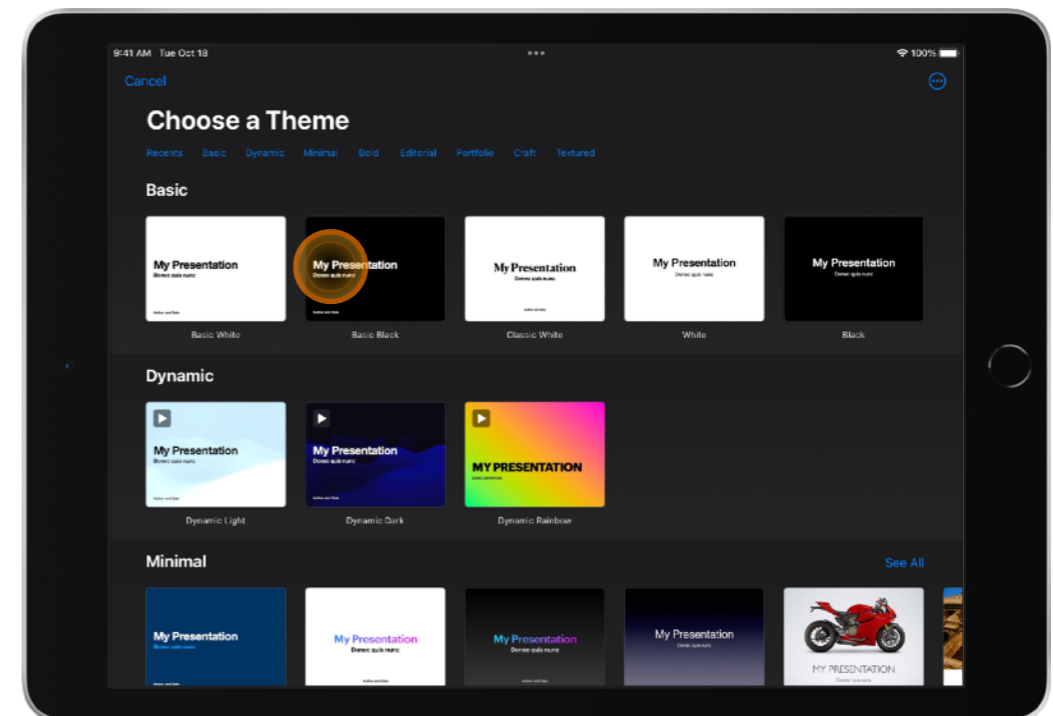
TIP: A Theme with a dark background will work best for this activity.

3 Tap Shapes ⬡ at the top of the toolbar.

After selecting Shapes, tap Basic and select the Circle shape.
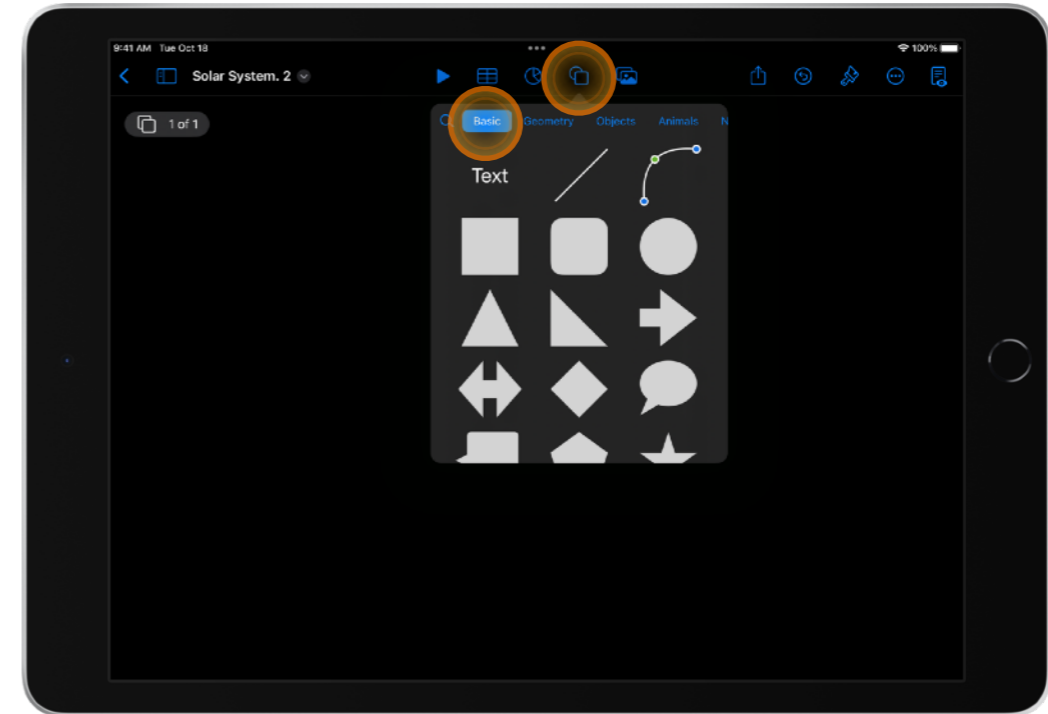
4 From the toolbar at the top of the screen, tap Format ✎ to format the circle.

Turn on Border and change it to a dashed white border.

Tap Fill, and select No Fill.
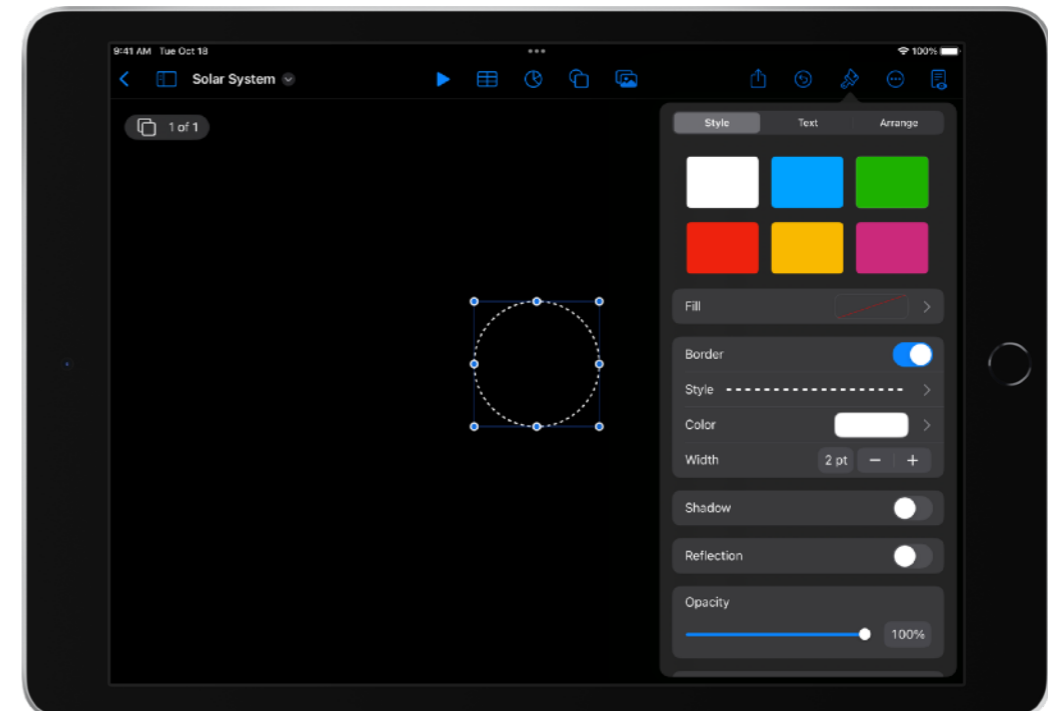
5 Tap the circle, and select Copy.

Tap anywhere on the screen and select Paste. You now have two identical circles. Repeat this process six more times for a total of eight circles.

Keeping the original circle, resize the remaining seven circles so that each one is slightly larger than the previous one.
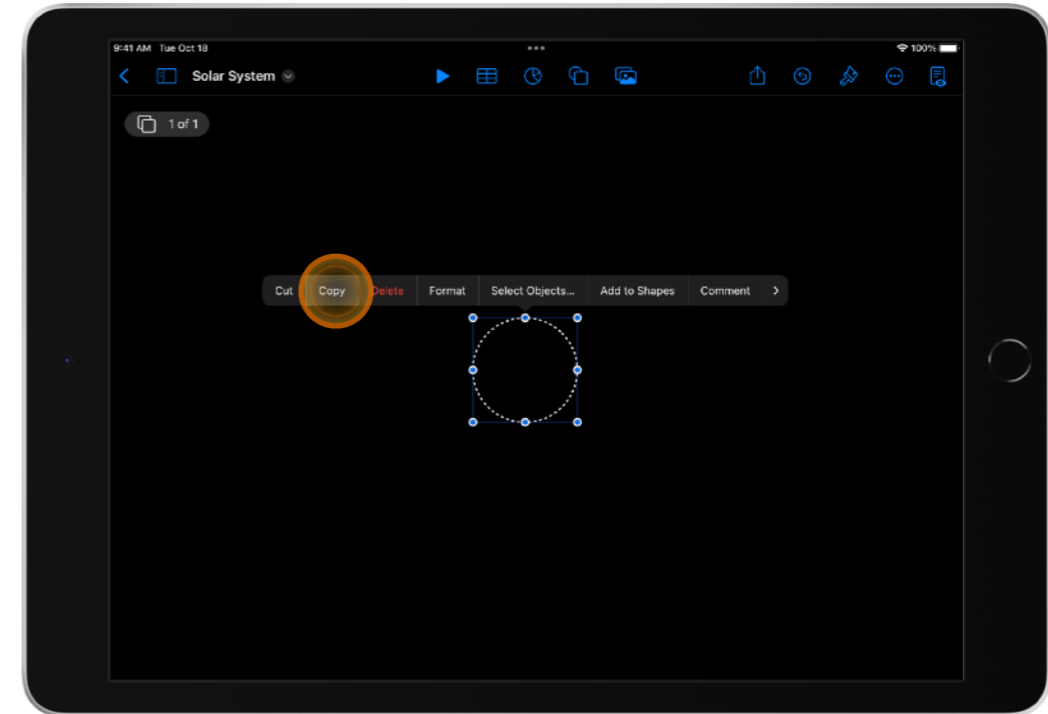
6 Touch and hold each circle to move it.

Arrange all the circles so that they form a concentric pattern (like our solar system).
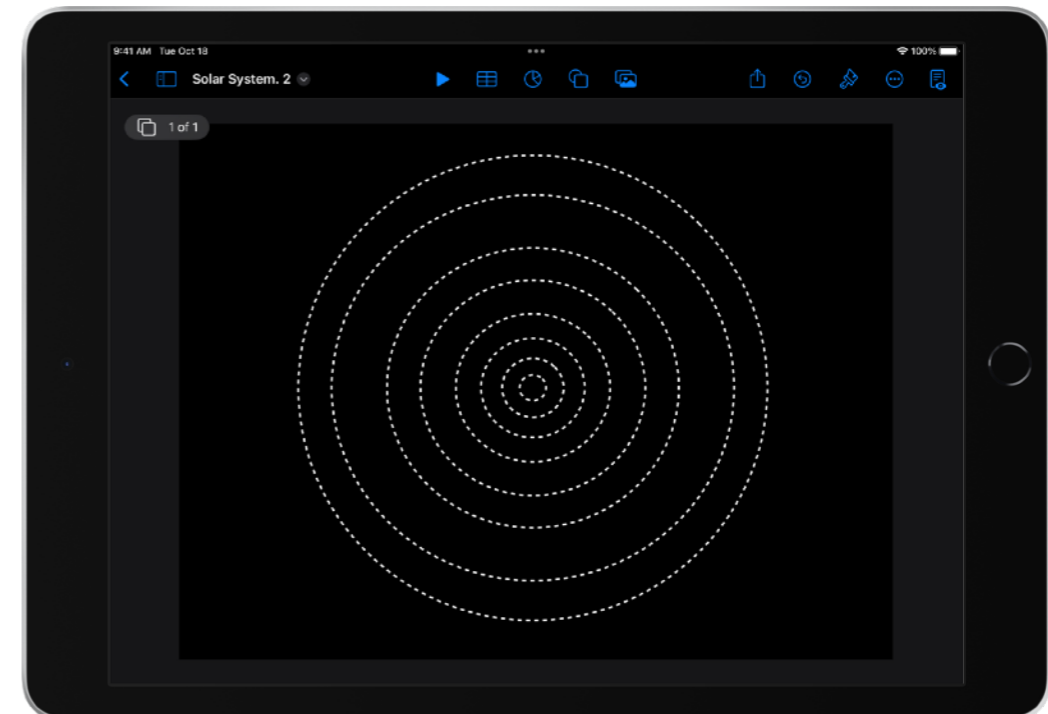
TIP: To keep the circles perfectly round, follow the diagonal guide when enlarging or reducing a circle's size.

Use Apple Pencil *To Draw the Solar System in Keynote*

7 Tap anywhere on the screen to display the menu.

Tap Select Objects.

Tap Select All.

Tap Format 🖌 on the toolbar at the top of the screen.

Tap Group (this groups all circles into one object so you can move it or resize it).
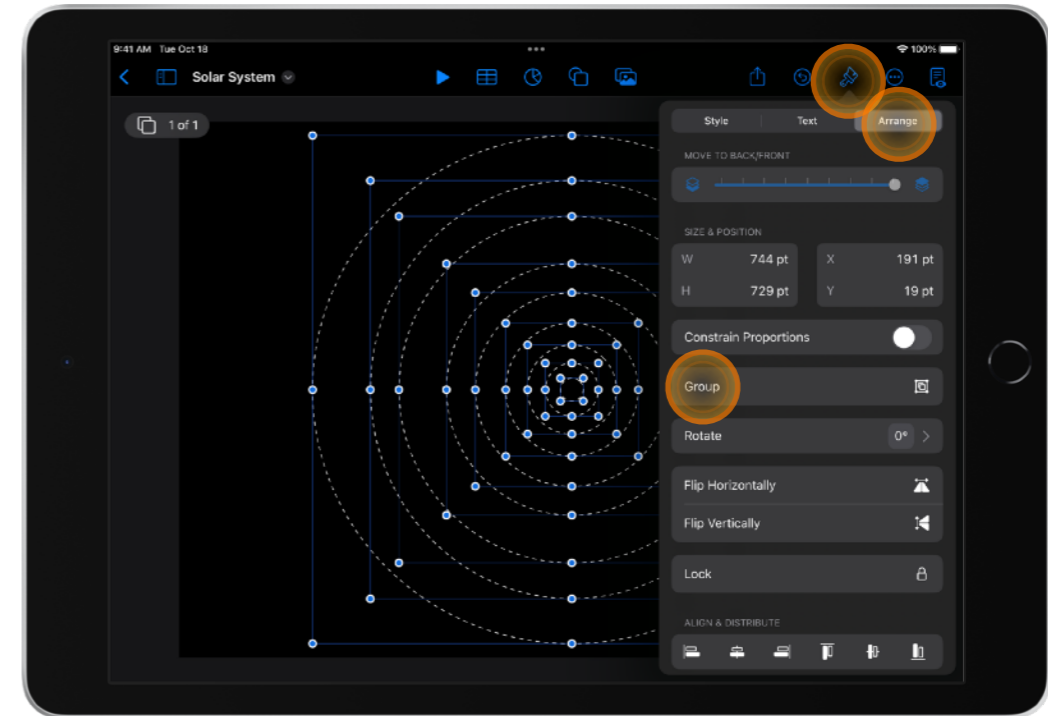
8 Now that the circles are grouped as one object, you can reposition it or zoom in.
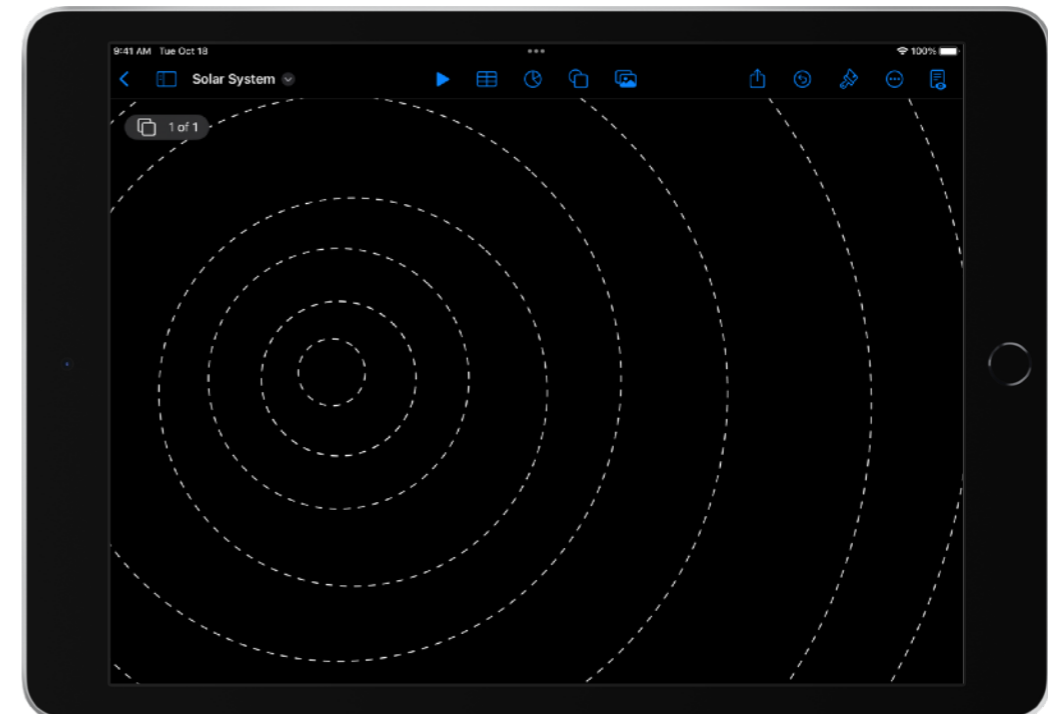
9 Draw a sun in the centre of the concentric circles.

Use the Paint tool to fill it in, and use the colour palette to select a colour.
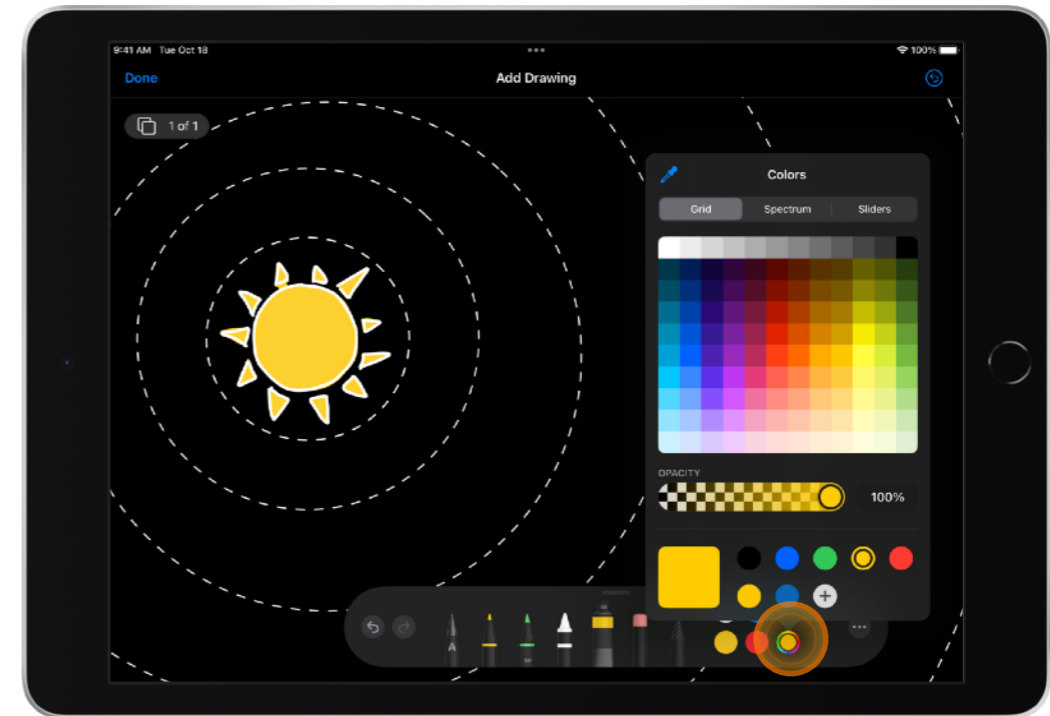
10 Now draw the other planets and arrange them in order.

Use the Pen tool to outline the planets, the Paint tool to fill them, and the Crayon tool to give texture or other identifying characteristics.

Pinch open or closed to zoom in or out to create more detail.
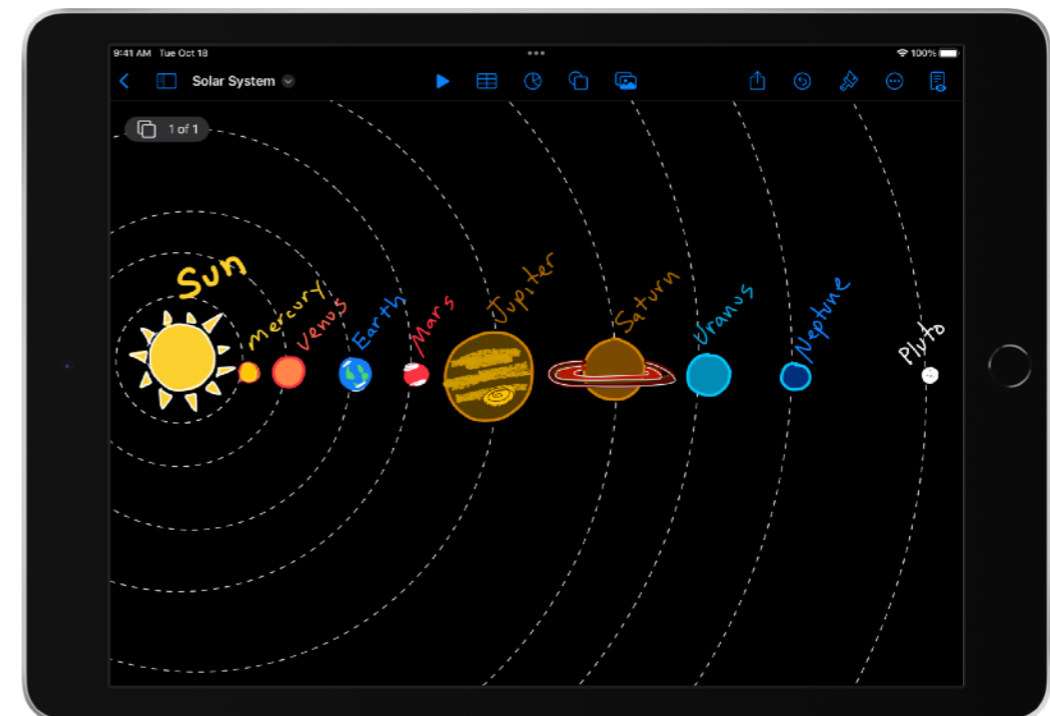
Use Apple Pencil

To Write a Postcard in Keynote

Use Apple Pencil *To Write a Postcard in Keynote*

1 Open Keynote. Tap Create a Presentation.
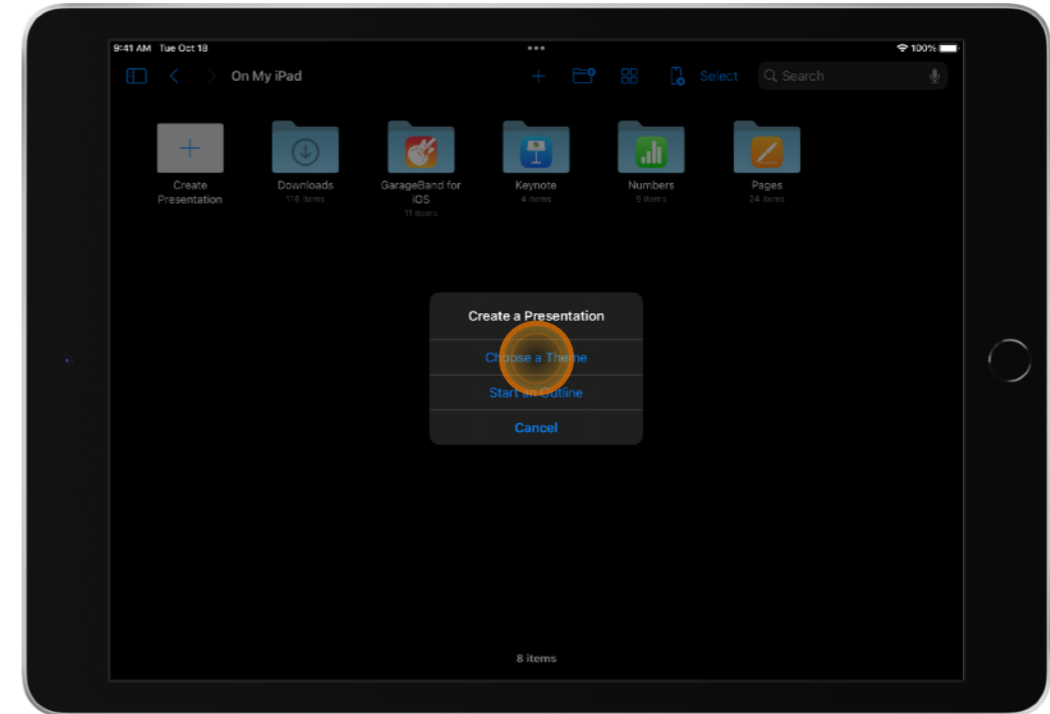
2 Choose from a variety of designer themes, or choose a basic theme.
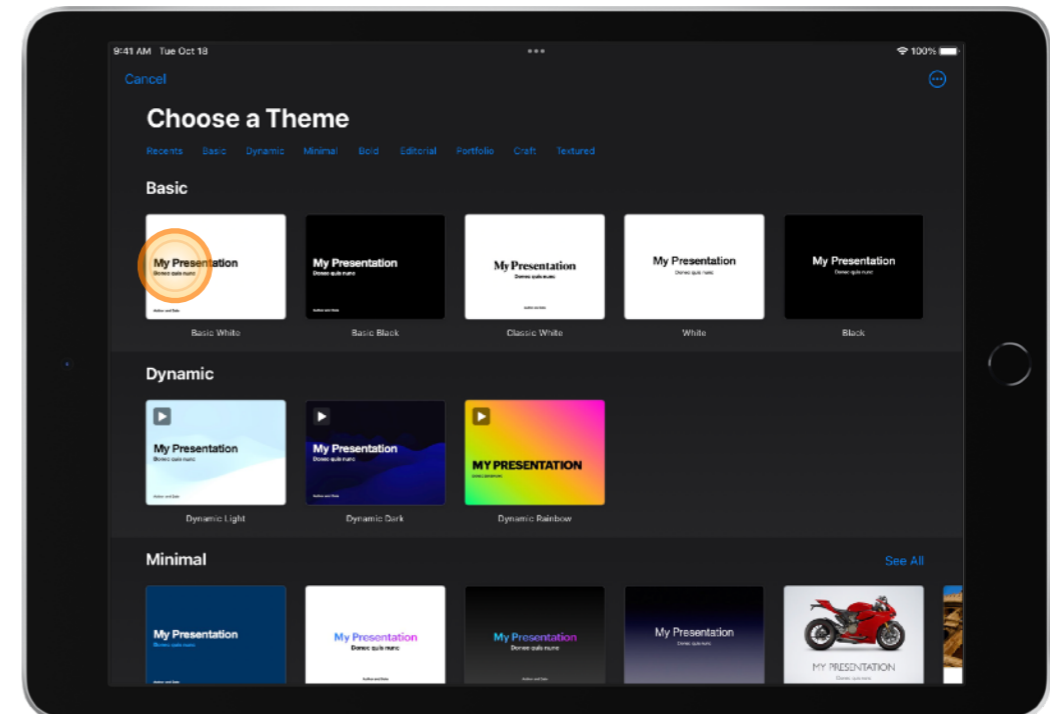
Use Apple Pencil *To Write a Postcard in Keynote*

3 Add a photo or video from Media or use Camera to take a photo.
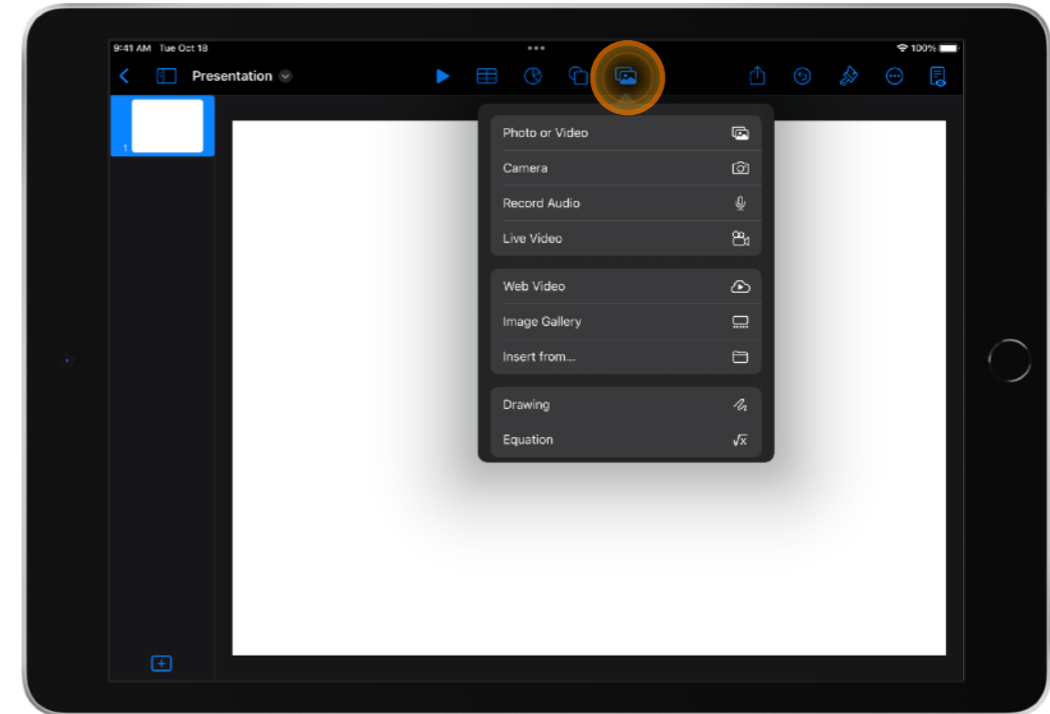
4 Resize the photo using the selection handles to get the desired size.
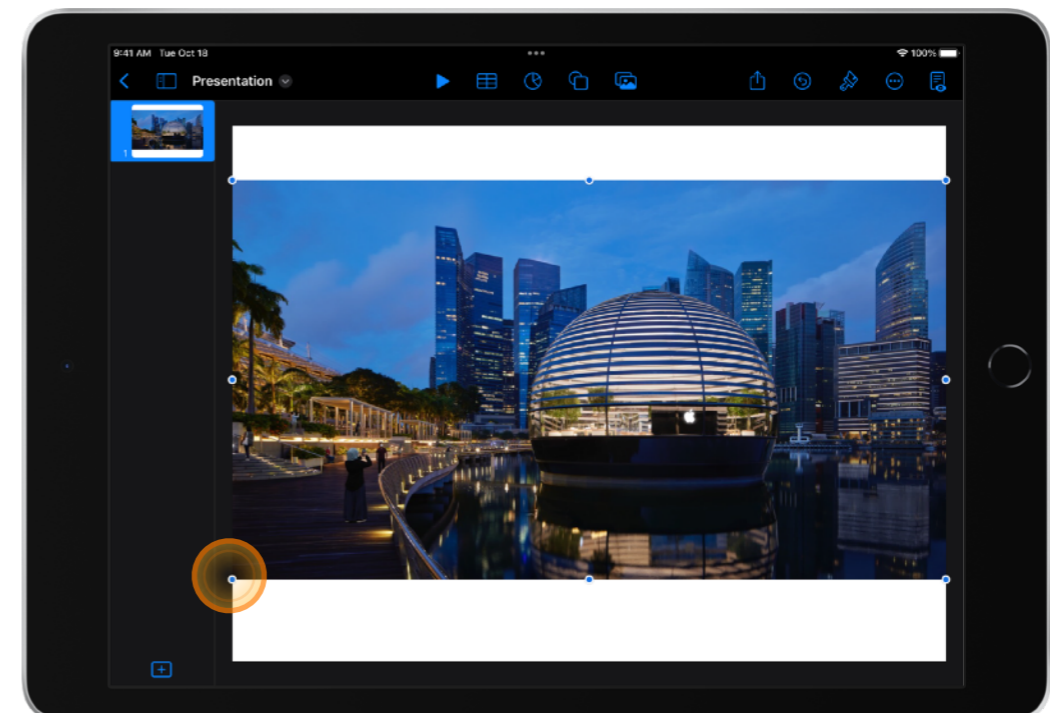
Use Apple Pencil *To Write a Postcard in Keynote*

5 The next step is to write on the postcard.

Writing freehand is perfectly acceptable. However, for this activity, try inserting some text and then trace over it. This is a great way to become familiar with Apple Pencil and get creative with the postcard.

To insert text, tap the Shapes icon ⬠ on the top toolbar. After selecting Shapes, tap Basic and select Text.

TIP: For larger text, increase the font size and trace the letters. Tracing digital fonts is a unique iPad feature. It's a great way to become more familiar with lettering on iPad – and isn't as intimidating as freehand.

Then, fill in the letters using the Paint tool in the toolbar at the bottom of the screen.
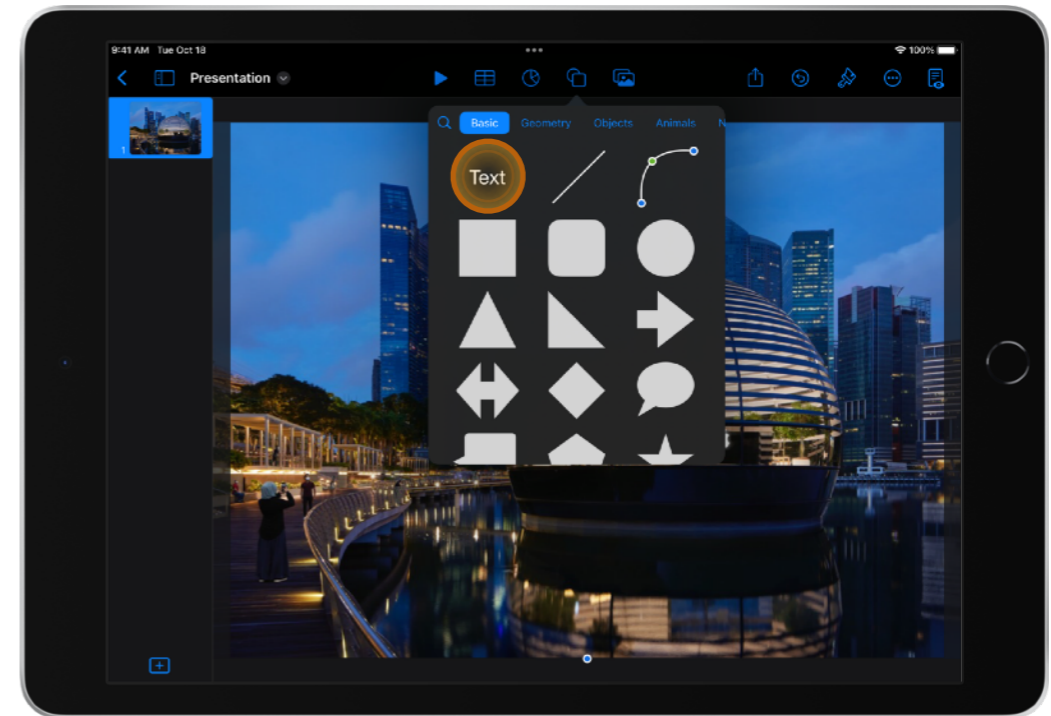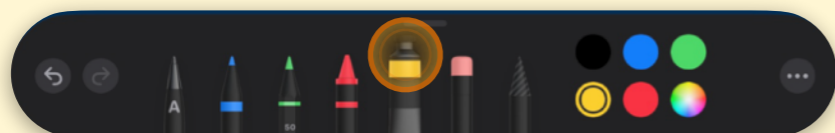
6 Use Apple Pencil to add a personalised note. You can also draw shapes.
For example, you can let someone know how you really feel by using the Pencil and Paint tools to draw and fill in a heart!
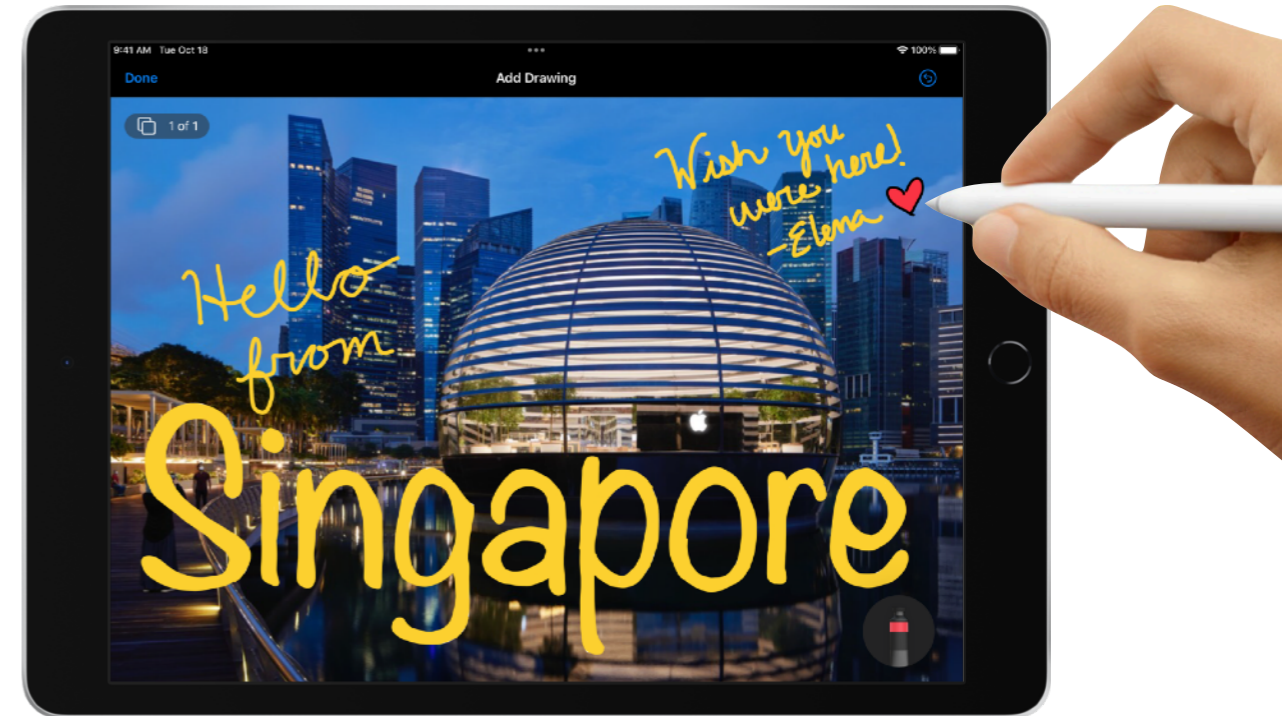
7 To share your postcard, tap Share ⬆, then tap Export.

Tap Image. (You can also export your postcard as a Movie, Animated GIF or PDF, depending on your design.)

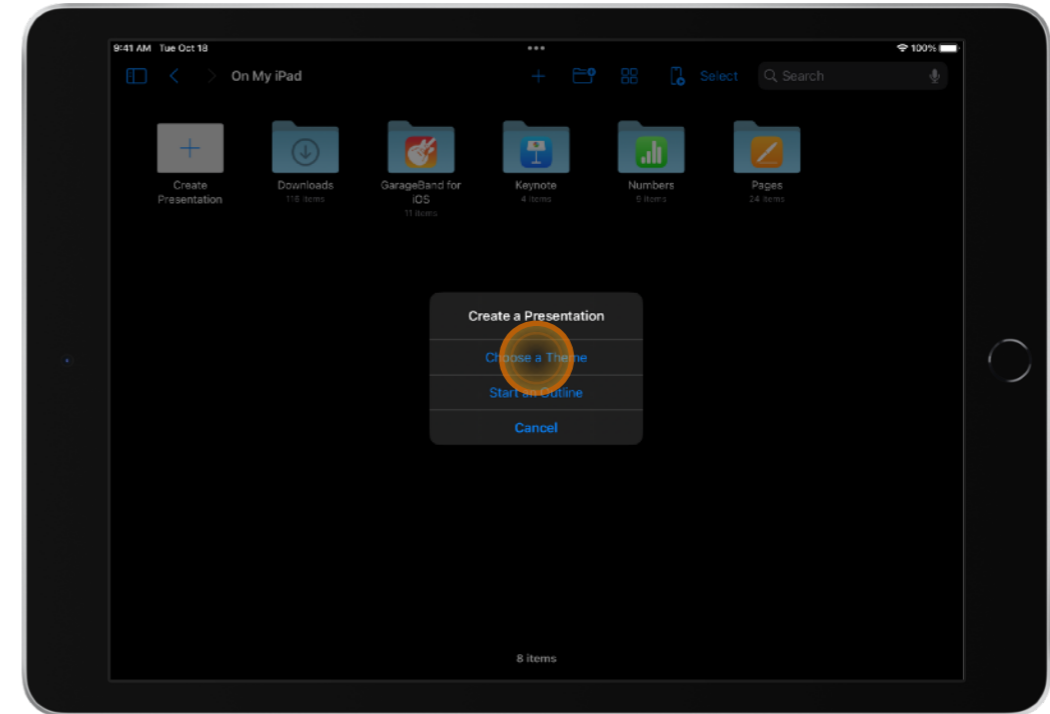When prompted, share your postcard by selecting AirDrop, Messages or Mail.
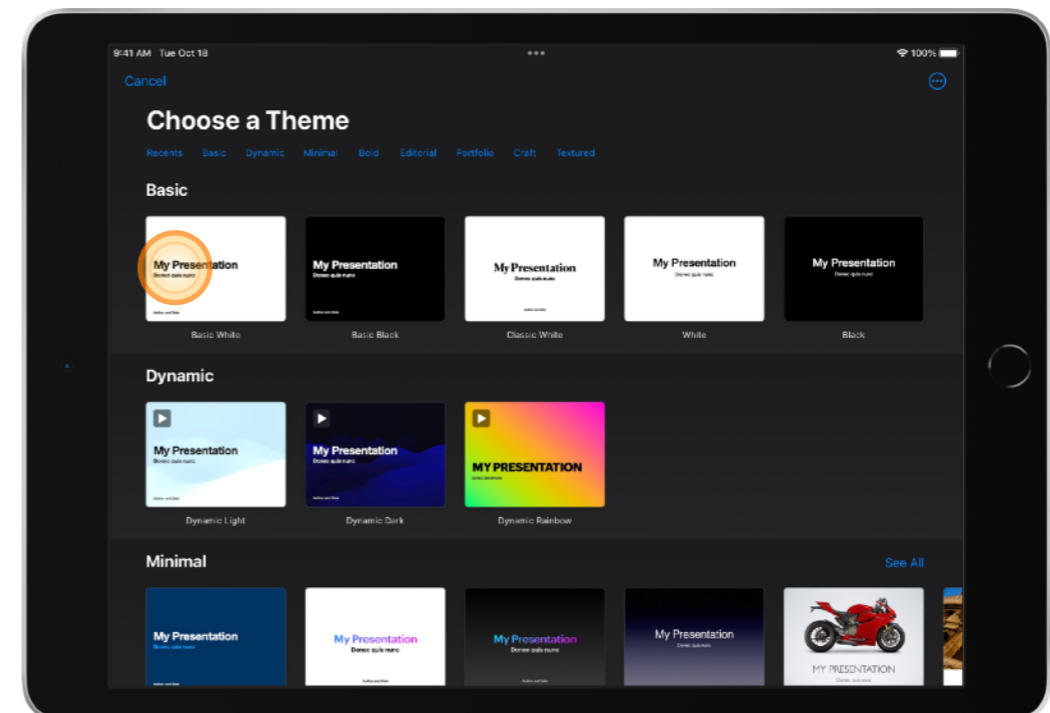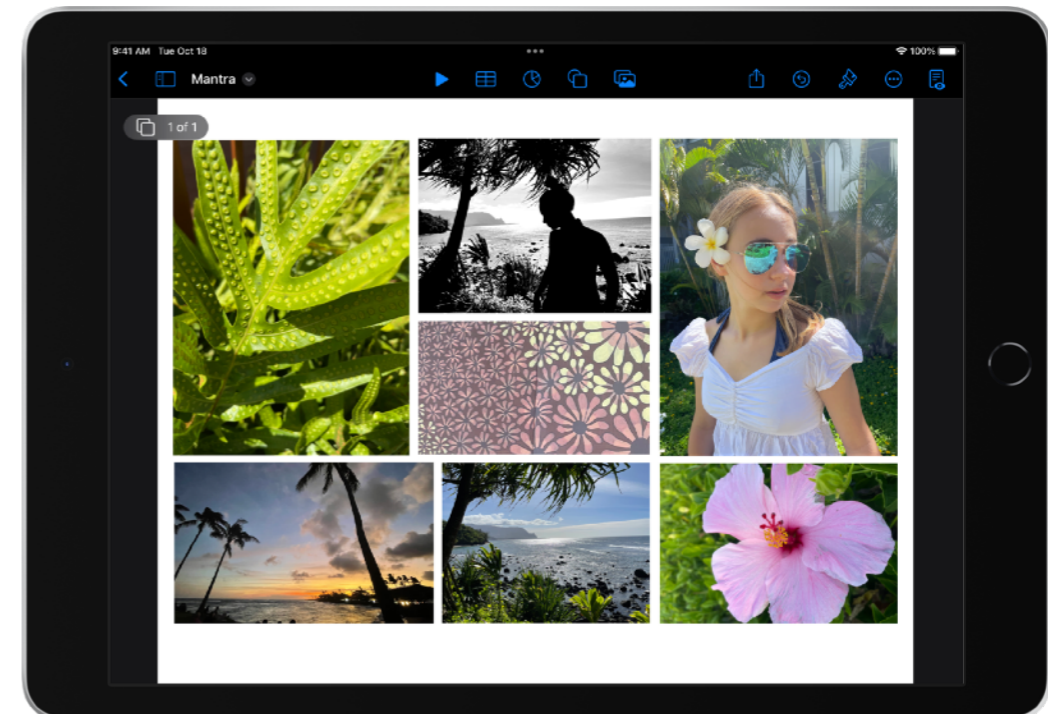
Use Apple Pencil

To Write Your Mantra in Keynote

Use Apple Pencil *To Write Your Mantra in Keynote*

1 Open Keynote. Tap Create a Presentation.

2 Choose from a variety of designer themes, or choose a basic theme.

RESOURCE: View the video How to Craft Your Mantra Collage on iPad with Quentin Jones to learn more tips and tricks.

Use Apple Pencil *To Write Your Mantra in Keynote*

3 Gather your inspiration. Add a photo or video from Media or use Camera to take a photo.
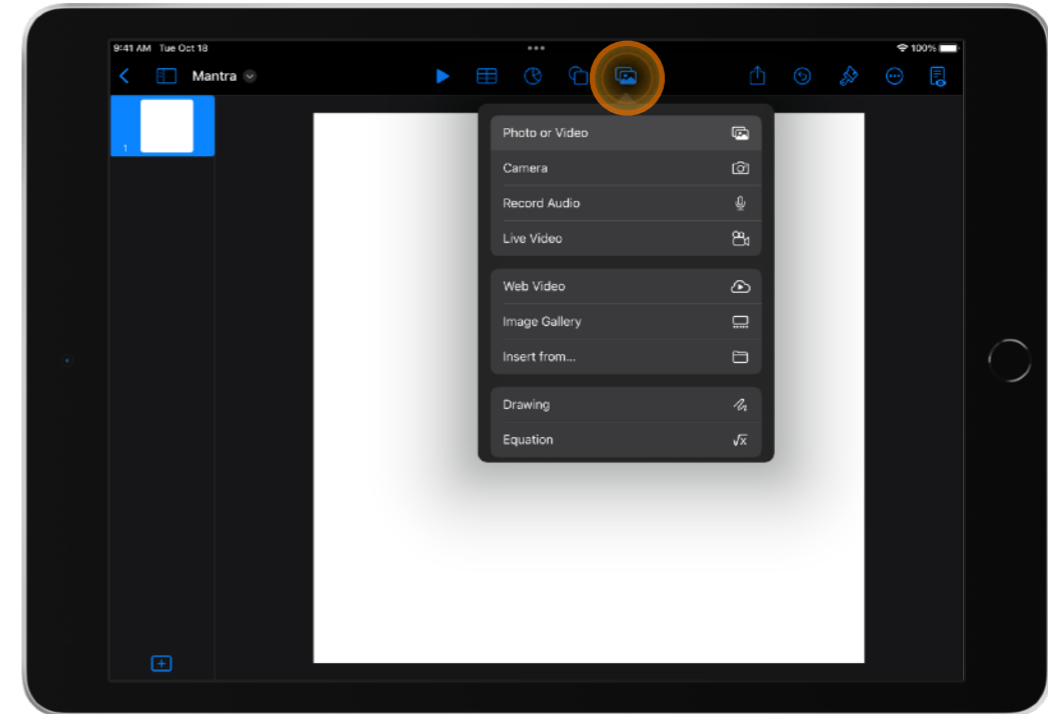
4 Resize the photos to get the desired size, and arrange them where you want them.

Use Apple Pencil *To Write Your Mantra in Keynote*

5 Use Apple Pencil to write some words that make you feel happy.

Then choose one or more of those words to create your mantra. You may want to start with a verb, such as: "Let's Get Lost" or "Stay Present".
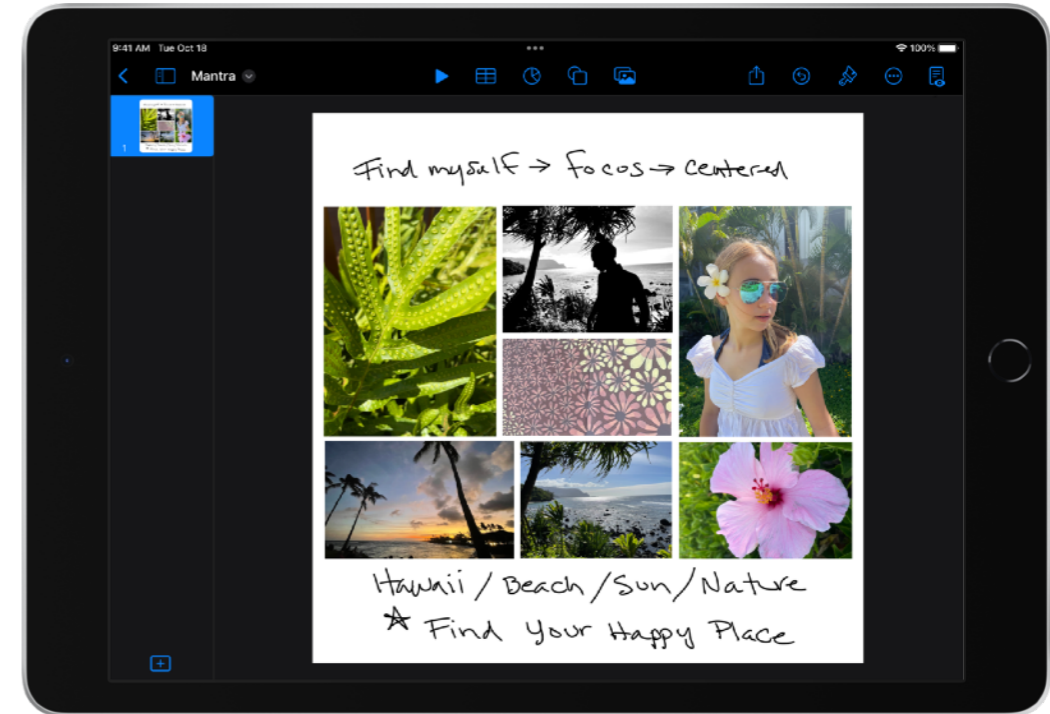
6 Use the Shapes tools to make shapes out of the photos you chose. Do this by selecting a shape from the Shapes library and overlaying it onto a photo.

Select Mask with Shape.
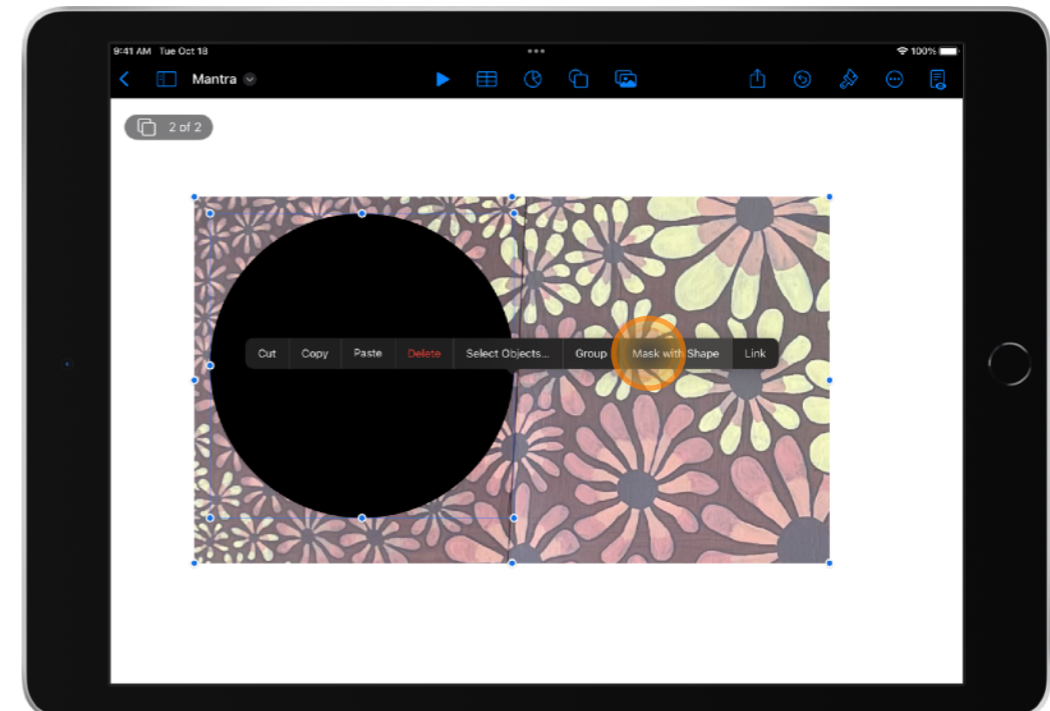
Use Apple Pencil *To Write Your Mantra in Keynote*

7 Use "Remove background" to remove negative space from a photo, so you only get the part you want.
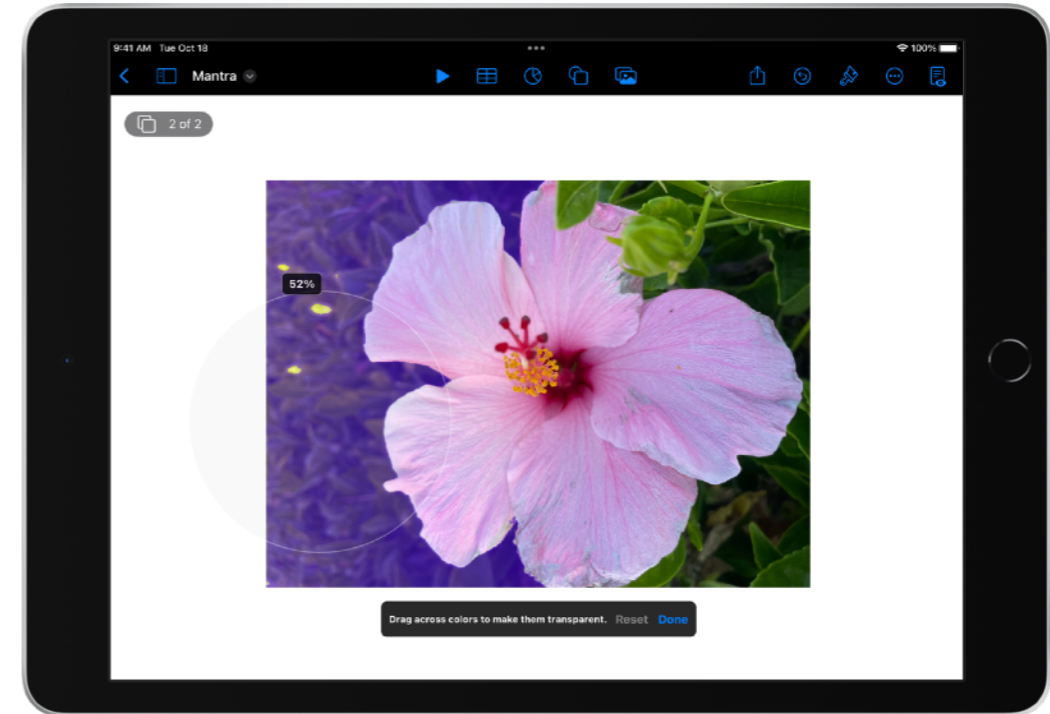

8 Write your mantra in large letters.

TIP: For larger text, tap Format 🖌. Tap the plus sign + to increase the font size, then trace the letters.

Fill in the letters using the Paint tool in the toolbar at the bottom of the screen.
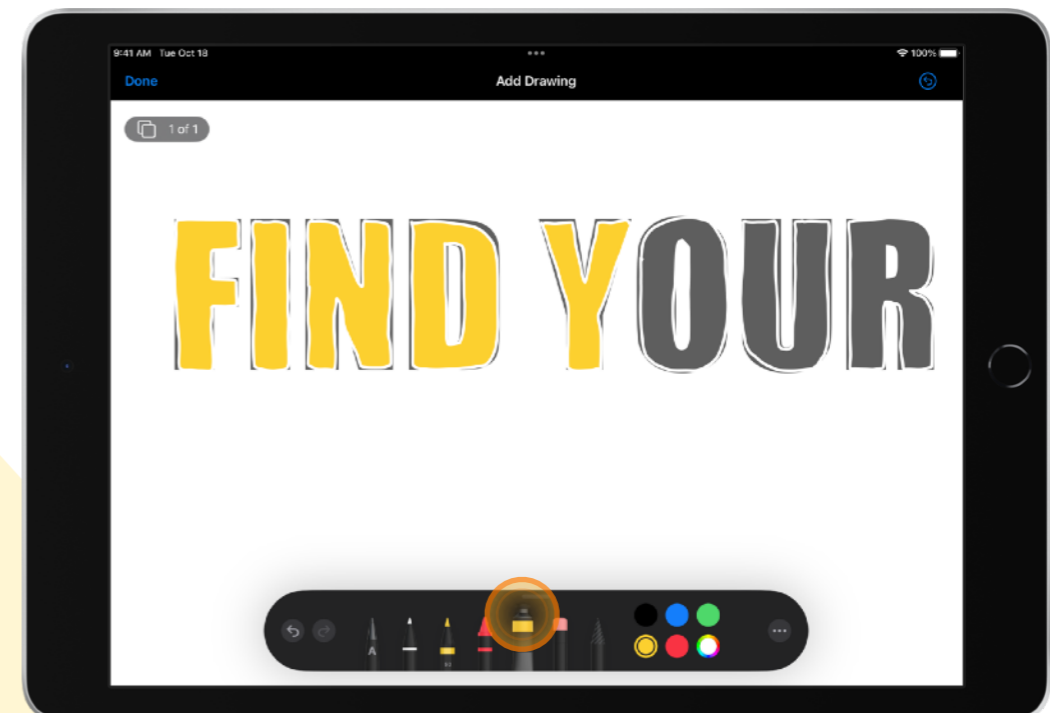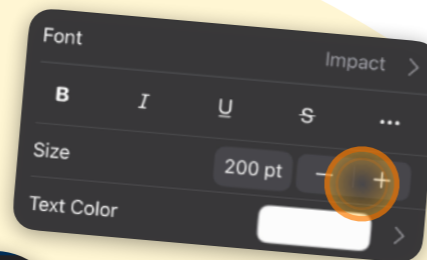
Use Apple Pencil *To Write Your Mantra in Keynote*

9 Combine your elements. Arrange your photo cut-outs and handwritten mantra on the page where you want them.
You can resize words and photos, or any other objects.
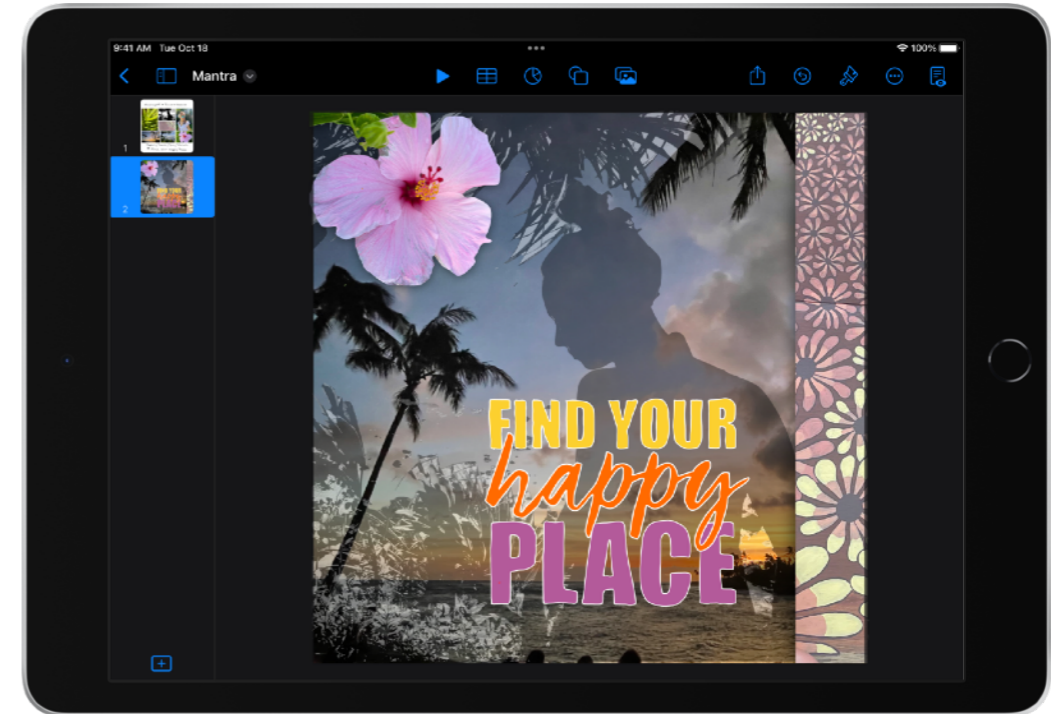
10 Duplicate your slide several times.
Modify each slide by resizing the words, photos or any other objects to create an interesting composition on each slide.
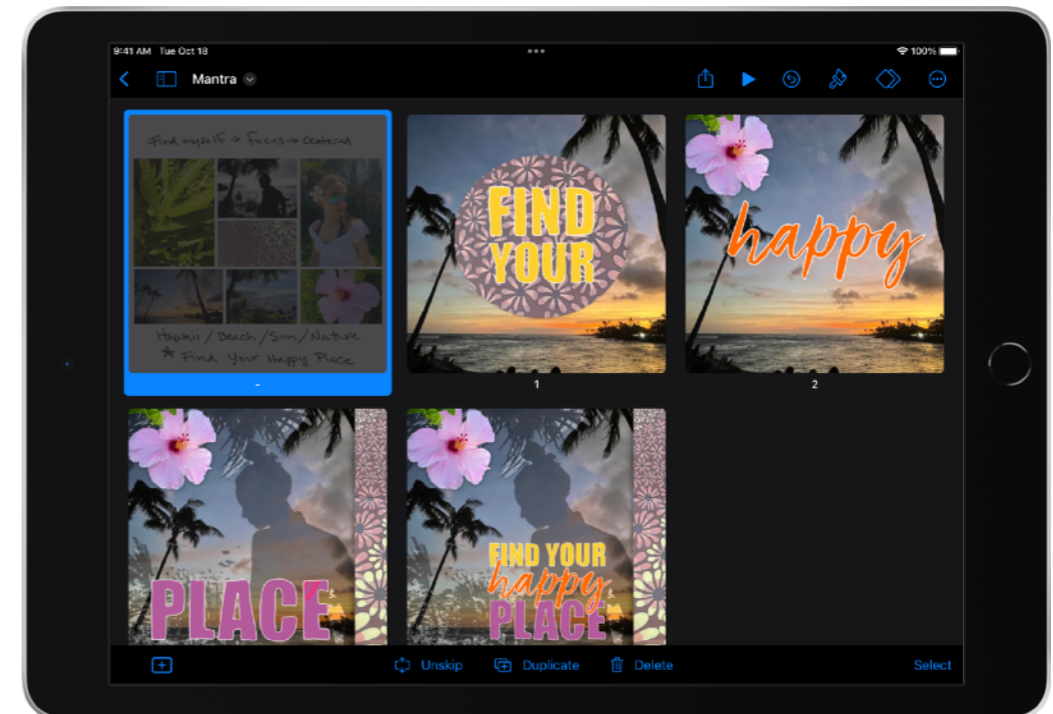

TIP: You can lock some objects in place if you want by selecting the object and selecting Format > Lock.
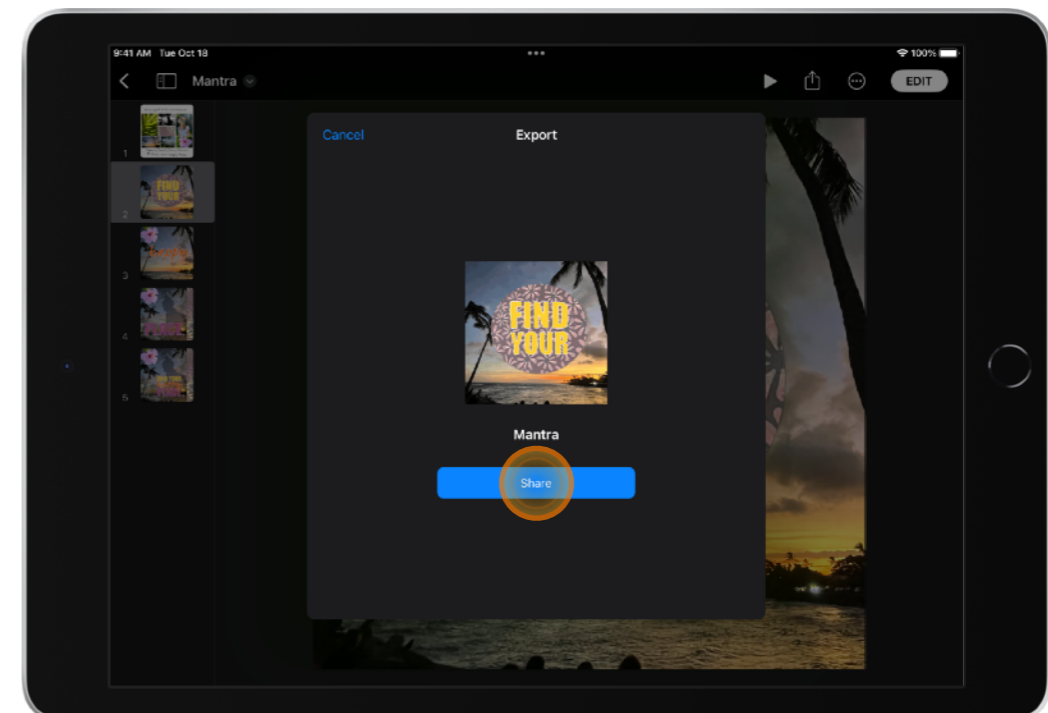
11 Animate your mantra. Tap ⏷, then Export.
Tap Animated GIF.

Tap Slide Range, use the number wheel
to set the beginning and ending slide
number, then tap Animated GIF Options.

Tap Frame Rate, tap an option (the lower
the number, the slower the animation),
then tap Animated GIF Options.
Tap Export.
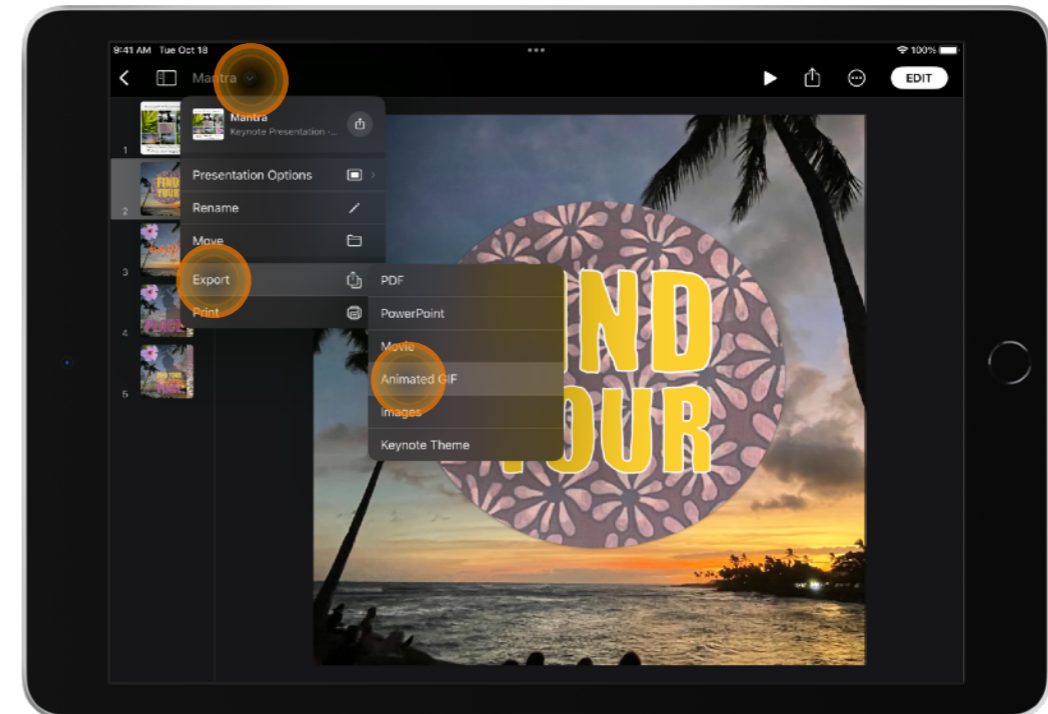
12 To share your mantra, tap Share.
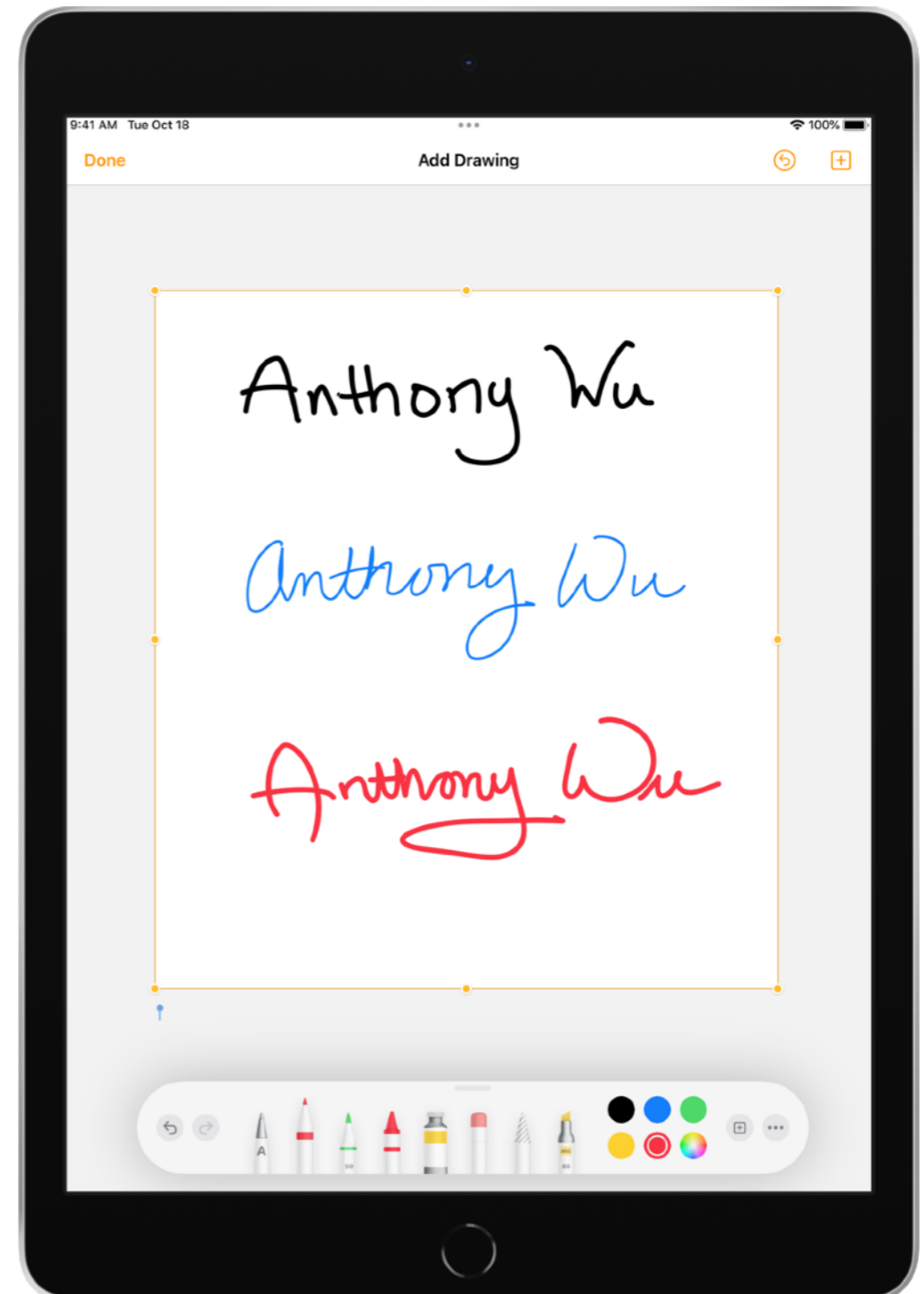
Use Apple Pencil

To Sign Your Name in Pages

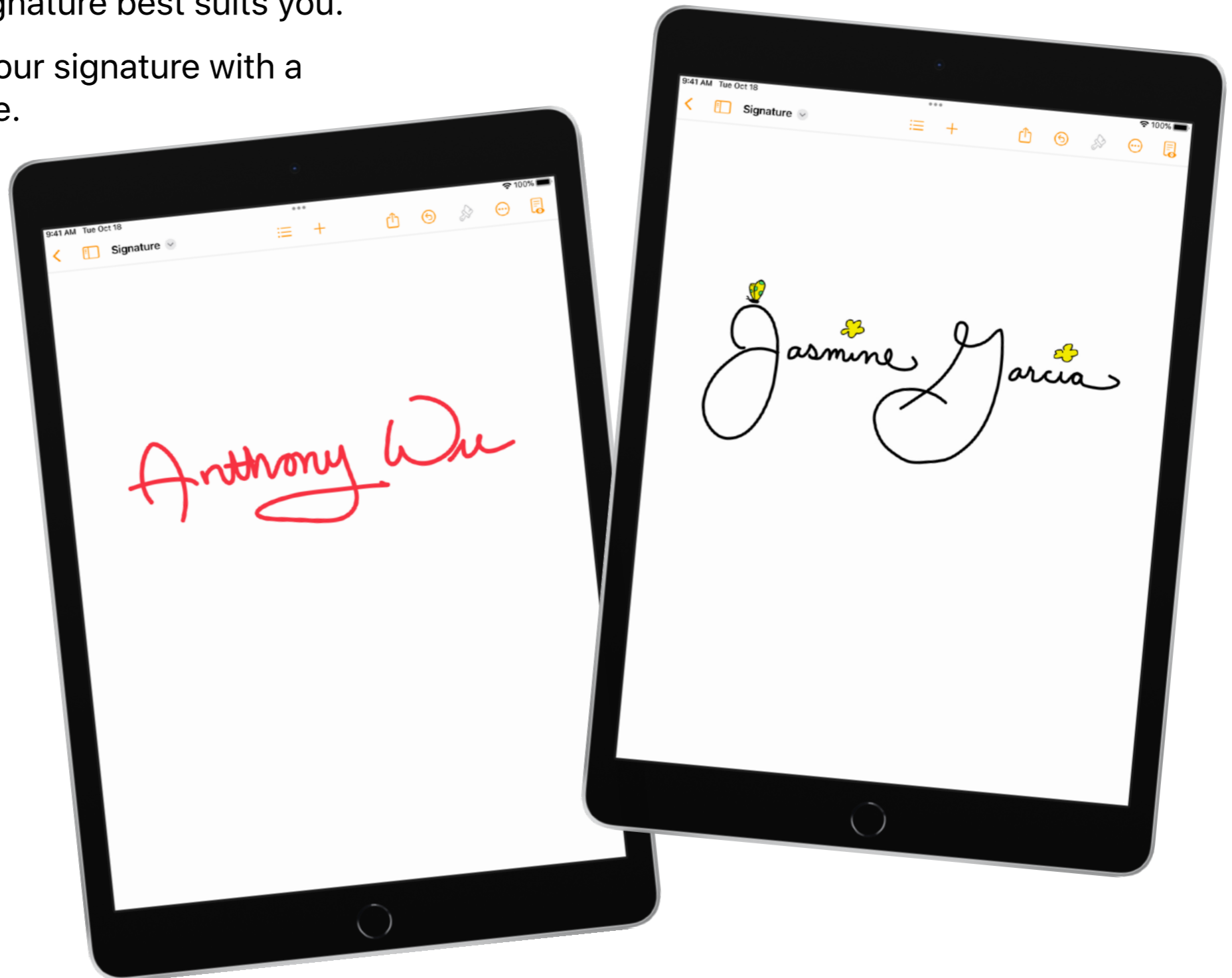# **Use Apple Pencil** *To Sign Your Name in Pages*

Signatures come in many different styles. Some are bold. Some are loud. Some are small or discreet. Some come with flourish, while others are quite plain. Experiment with different styles.

1 Open Pages on iPad. Tap your Apple Pencil anywhere on the screen to begin.

2 Choose a writing tool; for example, the pen or crayon (don't select the Scribble tool).

3 Think about what your signature says about you. Practise using at least three different styles to write your signature.

Use Apple Pencil *To Sign Your Name in Pages*

4 Decide which signature best suits you.

Then compare your signature with a friend's signature.

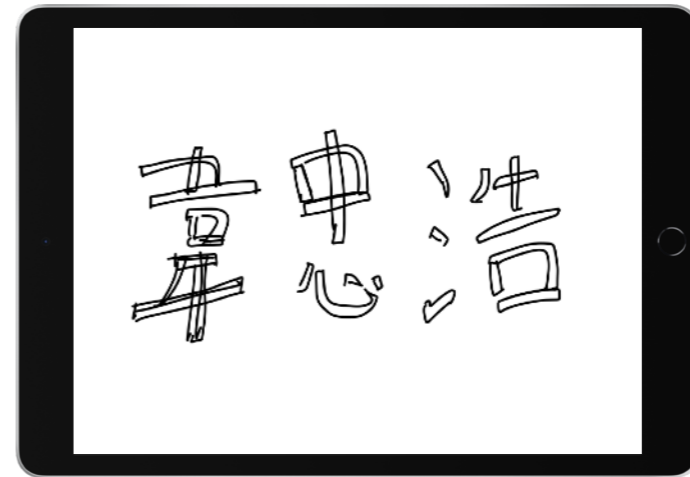**Use Apple Pencil**

To Personalise Your Name in Keynote

1 Use the pencil to draw letter guidelines.

Write your name between the guidelines.

2 Outline the letters. Make straight corners. Try to keep the letters the same thickness, but don't worry if they aren't perfect. Use the Eraser tool to fix mistakes.

Erase the inside lettering and guidelines. It's easier if you pinch open to magnify.

3 Add colour!

Use Apple Pencil *To Personalise Your Name in Keynote*

1 Use the pencil to draw letter guidelines.

Write your name between the guidelines.
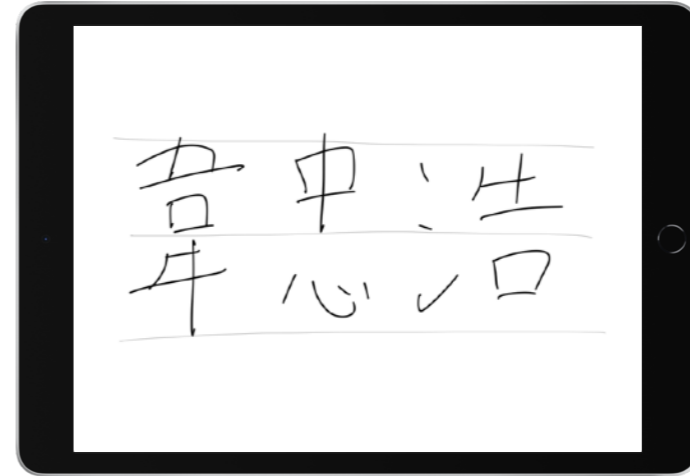
2 Outline the characters. Try to keep the characters the same thickness, but don't worry if they aren't perfect. Use the Eraser tool to fix mistakes.

Erase the guidelines. It's easier if you pinch open to magnify.

3 Use the Paint tool and double-tap the characters with Apple Pencil to fill them in with the desired thickness.

Use Apple Pencil

To Label an Image in Keynote

Use Apple Pencil *To Label an Image in Keynote*

1 Use Apple Pencil to label images.

Use different colours to differentiate labelled items.

2 Use AirPlay to collaborate and label in real time.
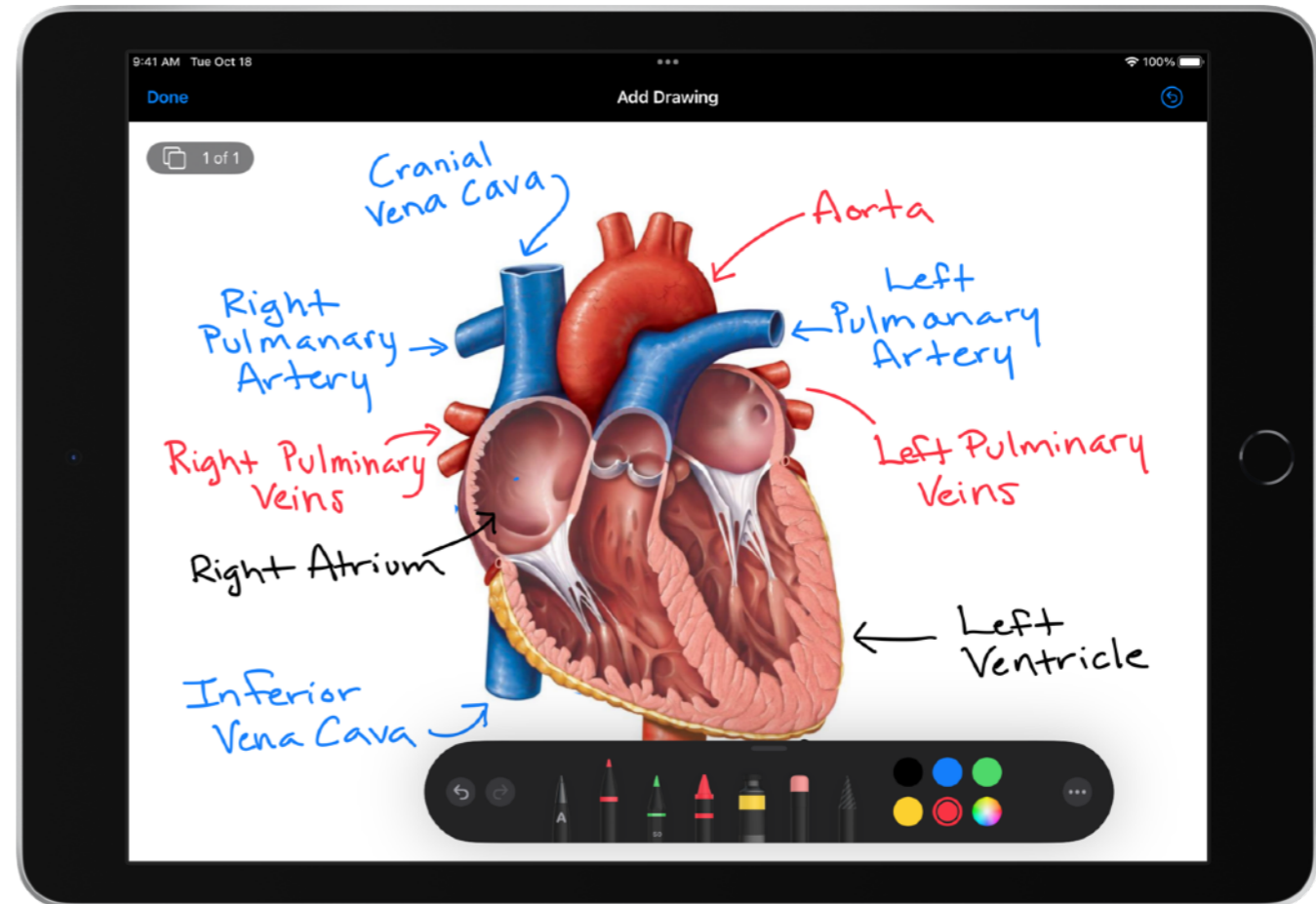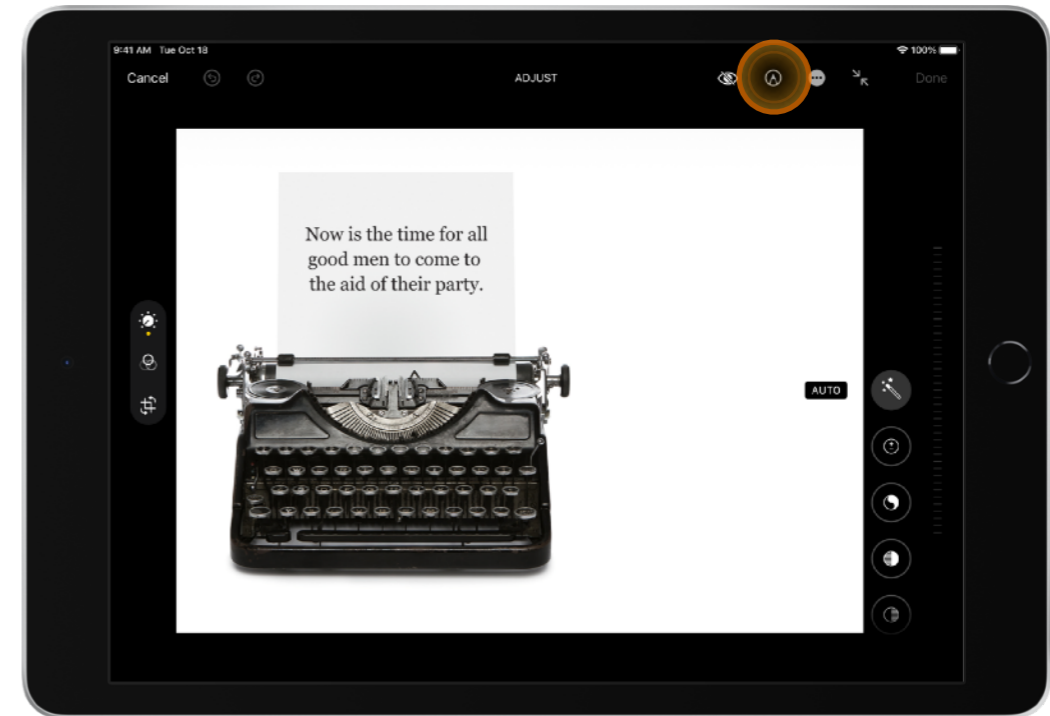
Use Apple Pencil
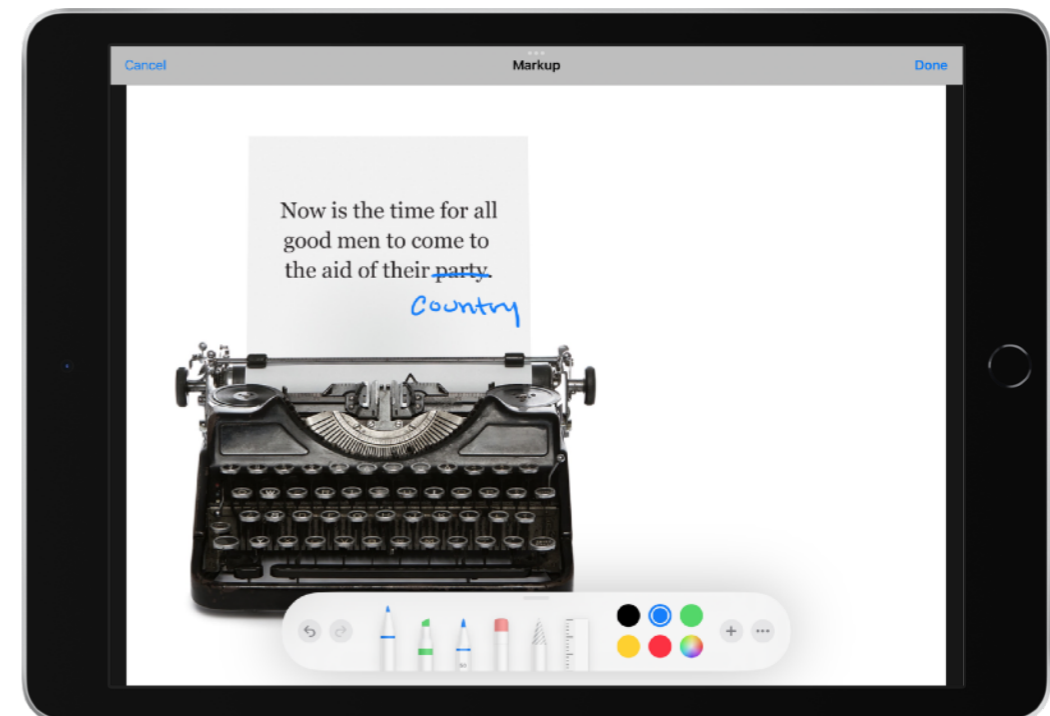
To Mark Up a Photo

Use Apple Pencil *To Mark Up a Photo*

1 Select a photo in the Photos app.

Select Edit.

Tap the Apple Pencil button in the top toolbar.

2 Use your Apple Pencil to mark up the photo.

Use Apple Pencil
With the Freeform App

Use Apple Pencil *With the Freeform App*

What is Freeform?
Freeform is an Apple app used for bringing ideas to life. Use Freeform to sketch out a project, design a mood board or start a brainstorming session on a flexible canvas that supports almost any kind of file.

What can I do with Freeform?

- Add photos, video, audio, documents, PDFs, web links, stickies and more.

- Use a finger, or Apple Pencil on a compatible iPad, to draw anywhere on the canvas.

- Create beautiful diagrams with a library of more than 700 shapes.

- Scan paper documents with the built-in document scanner.

- Invite up to 100 friends or colleagues into your board for real-time collaboration.

- Communicate with Messages or FaceTime.

What devices support Freeform?
Freeform comes free on every iPhone, iPad and Mac supporting iOS 16.2, iPadOS 16.2 or macOS Ventura 13.1.

Use Apple Pencil *With the Freeform App*

1 Open the Freeform app on your iPad.

To create a new board, tap ⬚.

2 To name your board, tap Untitled in the top left, then tap Rename.
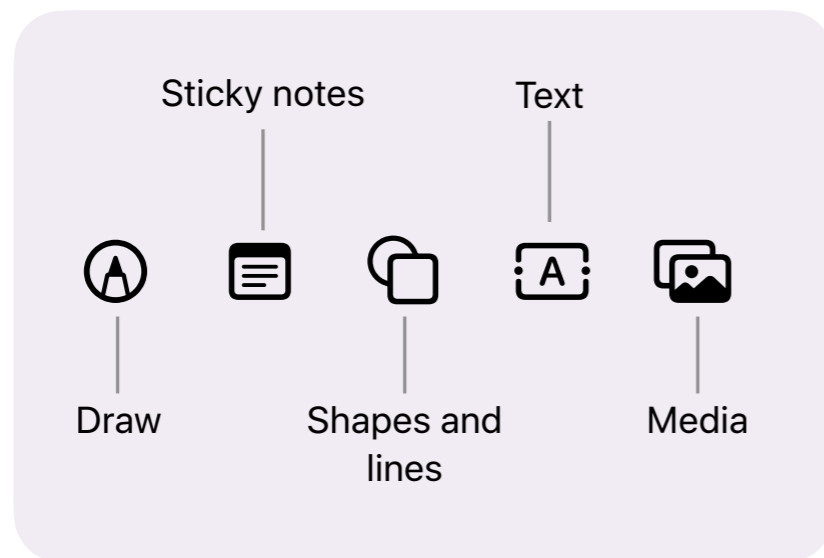
For example, you could rename your board "Solar Energy".
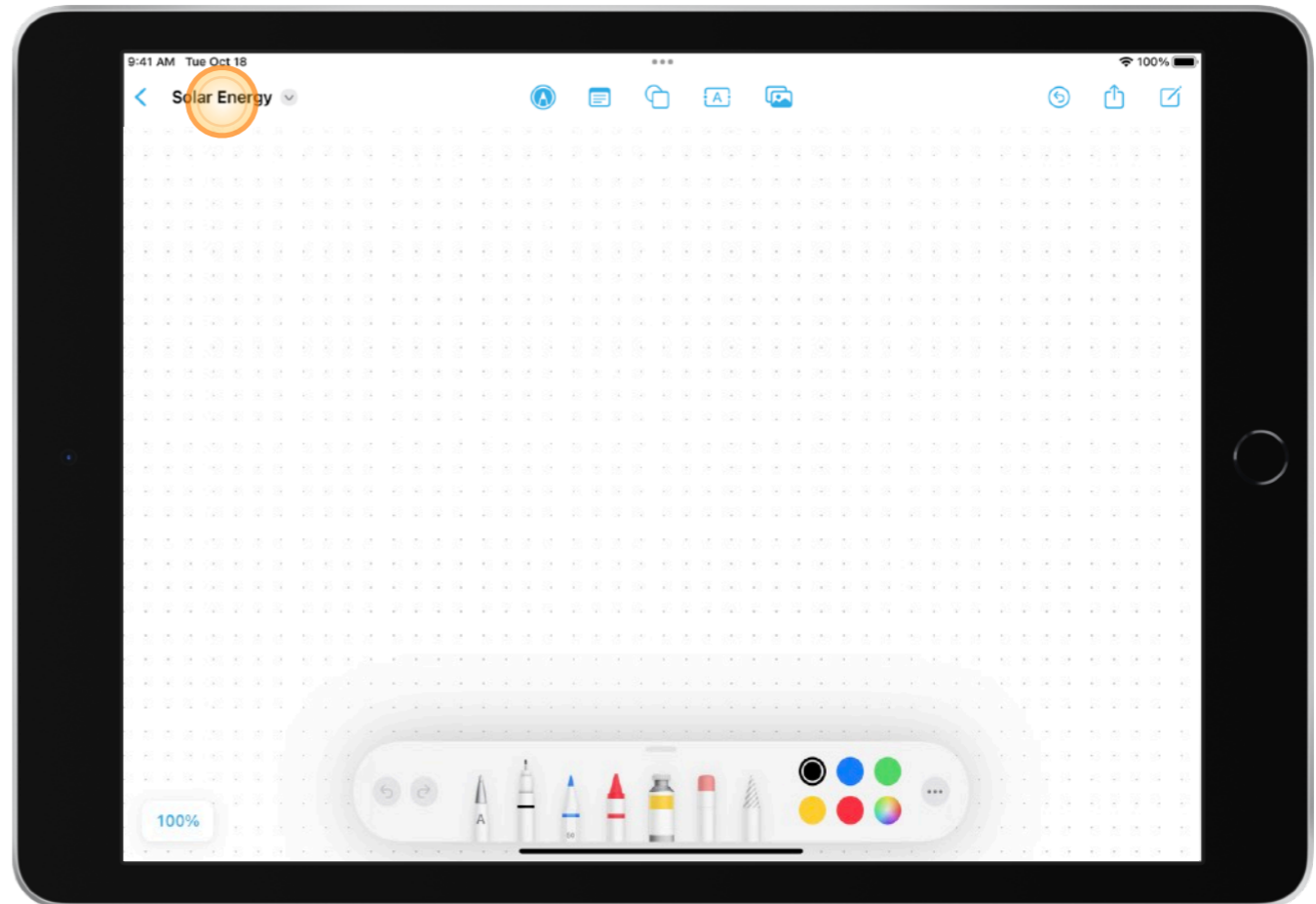
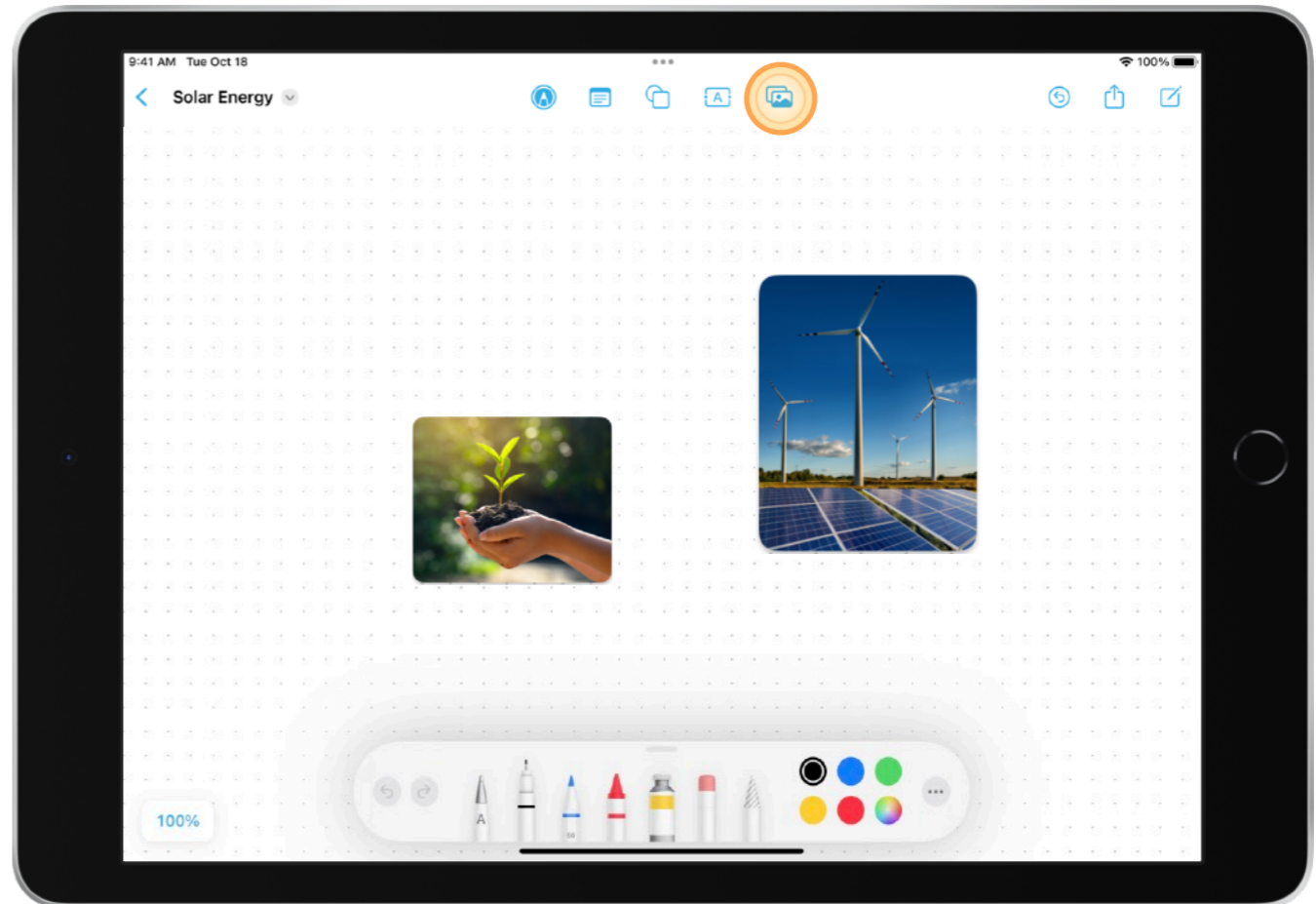**TIP:** If you're in Split View, tap •••, then tap Rename.

TIP: To choose a specific magnification, tap the percentage in the bottom-left-hand corner.

3 Tap one of the options at the top of the screen to start building your board.

Sticky notes

Text

Draw

Shapes and lines

Media

4 Move around your board by dragging your finger, and zoom in or out by pinching open or closed.

5 Use the tools in the Markup toolbar to draw shapes, write text, highlight words, create labels, paint shapes, erase mistakes or select objects.

Scribble

Pen

Paint

Lasso

Pencil

Eraser

Crayon
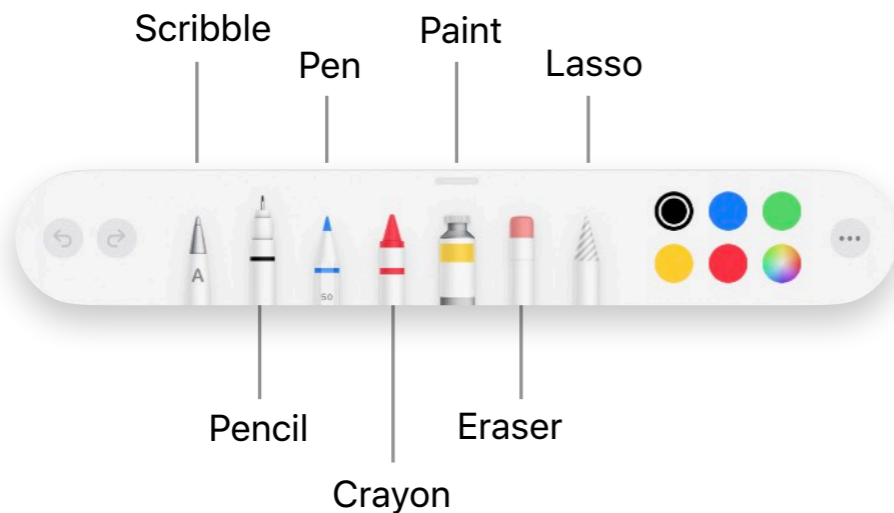
RESOURCES: Read how Freeform for iPhone, iPad and Mac makes visual collaboration easier than ever.

Find out more about getting started with Freeform on iPad.

6 To share or collaborate on your board, tap ⬆️.

7 Choose who can access the board and whether you want the people you're working with to be able to edit.

Tap ⓘ to change settings for individuals.

Tap 👥 to change settings for everyone.

If you don't want participants to be able to invite others, turn off "Allow others to invite".

8 Choose how you want to send the invitation.

TIP: When you share a board with the Messages app 💬, you can see who made updates since the last time you viewed the board in Messages.

RESOURCES:
Find out how to share Freeform boards and collaborate on iPad.
Find out how to collaborate on projects with Messages on iPad.

Use Apple Pencil

With Other Creative Apps

Use Apple Pencil With Other Creative Apps

Notability

Notes

Procreate

Scribble
Exercises for Educators

Scribble

What is Scribble?

Scribble is a feature in iPadOS that uses Apple Pencil to automatically convert handwritten words to typed text.

What can I do with Scribble?

- Write in a search field, a chat field, a form field or on a blank canvas.

- To delete text, just cross it out.

- To select text, draw a line through or circle the text.

- To insert letters or words, touch and hold in any text area until a new space is created.

- To join or separate words or letters, draw a vertical line between them.

What devices support Scribble?

Any iPad with iPadOS 14 or later installed that supports first-generation or second-generation Apple Pencil supports Scribble.

TIP: Use Apple Pencil to write the name of your favourite emoji. Scribble can convert it to an emoji.
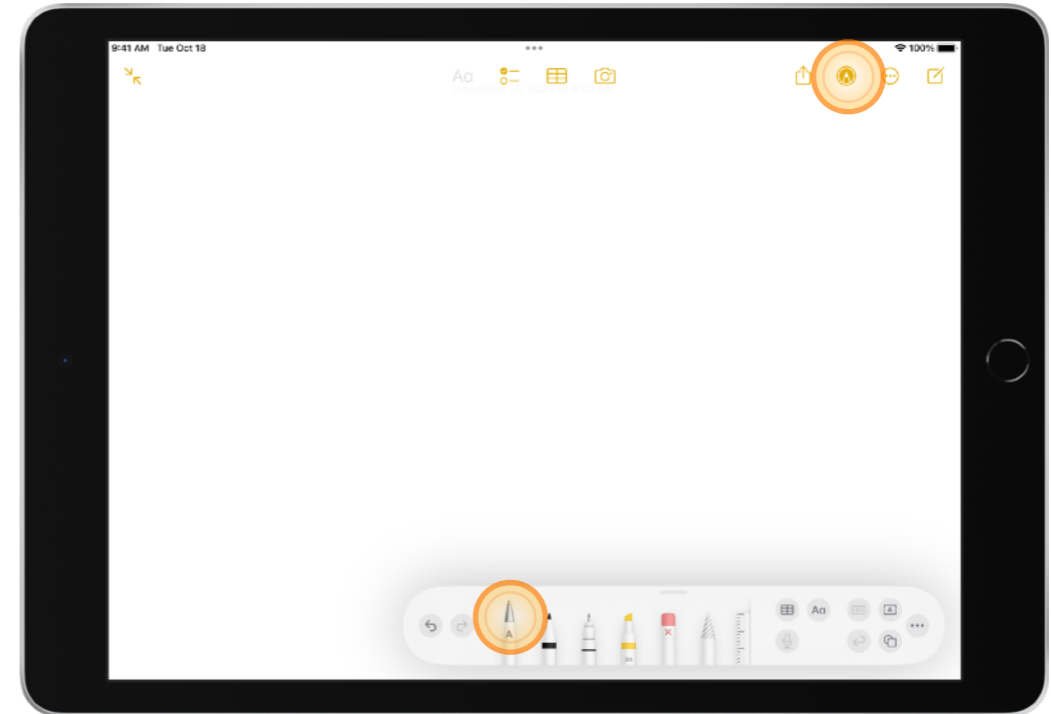
Use Scribble

To Write a Maths Problem in Notes

Use Scribble To Write a Maths Problem in Notes

1 Open Notes on iPad.

Tap the Apple Pencil Ⓐ button at the top of the screen to open the Markup toolbar.

In the Markup toolbar at the bottom of the screen, tap the Scribble tool to the left of the pen.

2 Using Apple Pencil, handwrite the following scenario. Notes converts your writing to text.

The mobilephone company charges a monthly rate of 12.95 and 0.25 a minute per individual call. The bill for m minutes is 21.20.

The cellphone company charges a monthly rate of 12.95 and 0.25 a minute per individual call. The bill for m minutes

IS 21.20
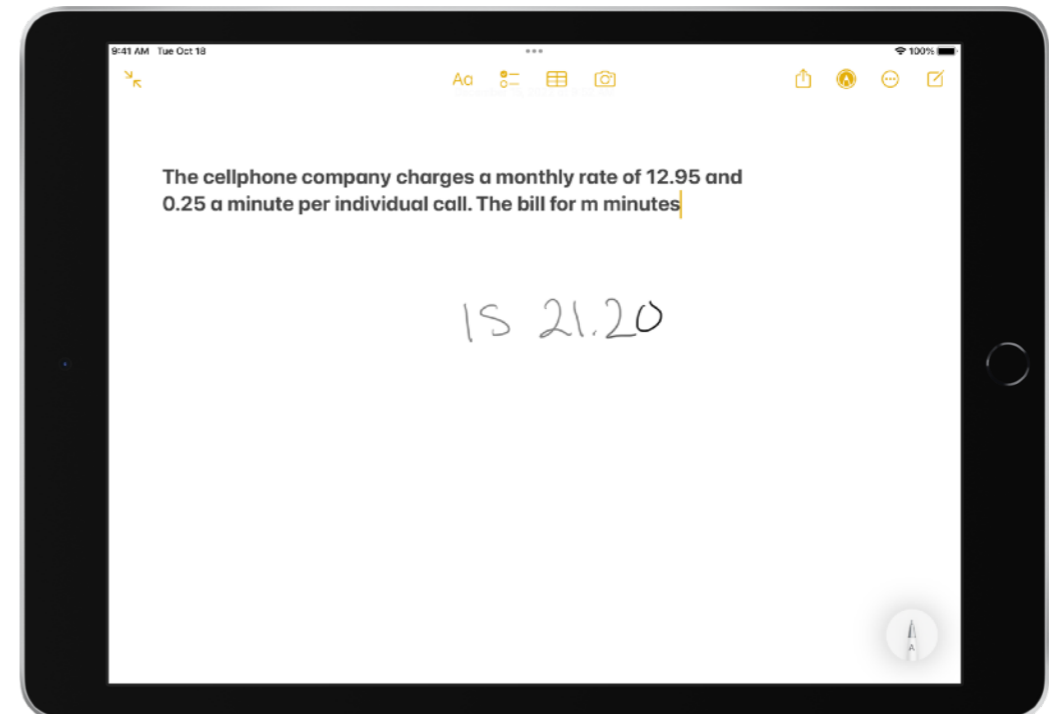
3 Edit the problem.

Circle "The" to select it. Change "The" to "A" by handwriting "A" below the sentence.
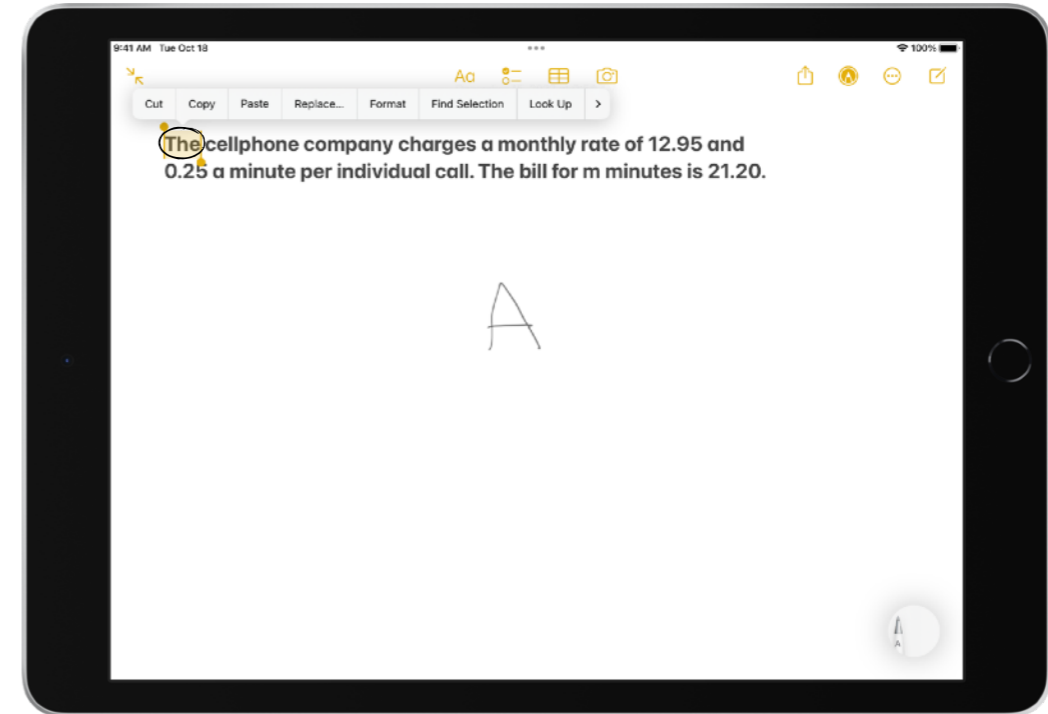
4 Scribble over the word "individual" to delete it.
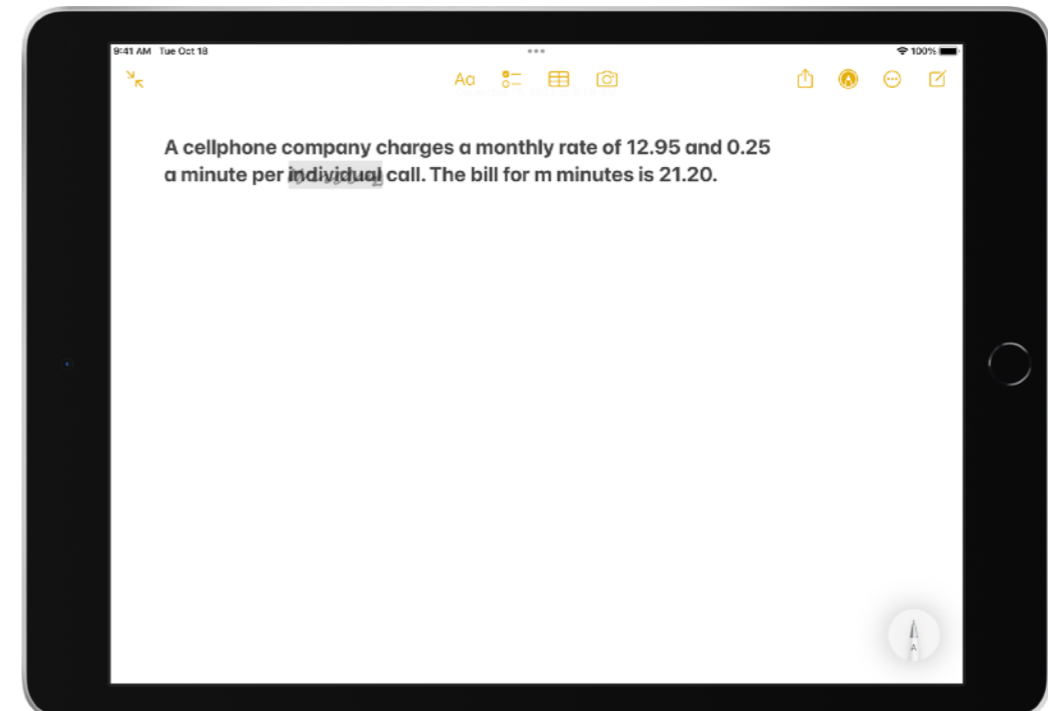
TIP: You can also strike through any word to select it.

5 Draw a vertical line between "mobile" and "phone" to separate "mobilephone" into two words.

A cellphone company charges a monthly rate of 12.95 and 0.25 a minute per call. The bill for m minutes is 21.20.
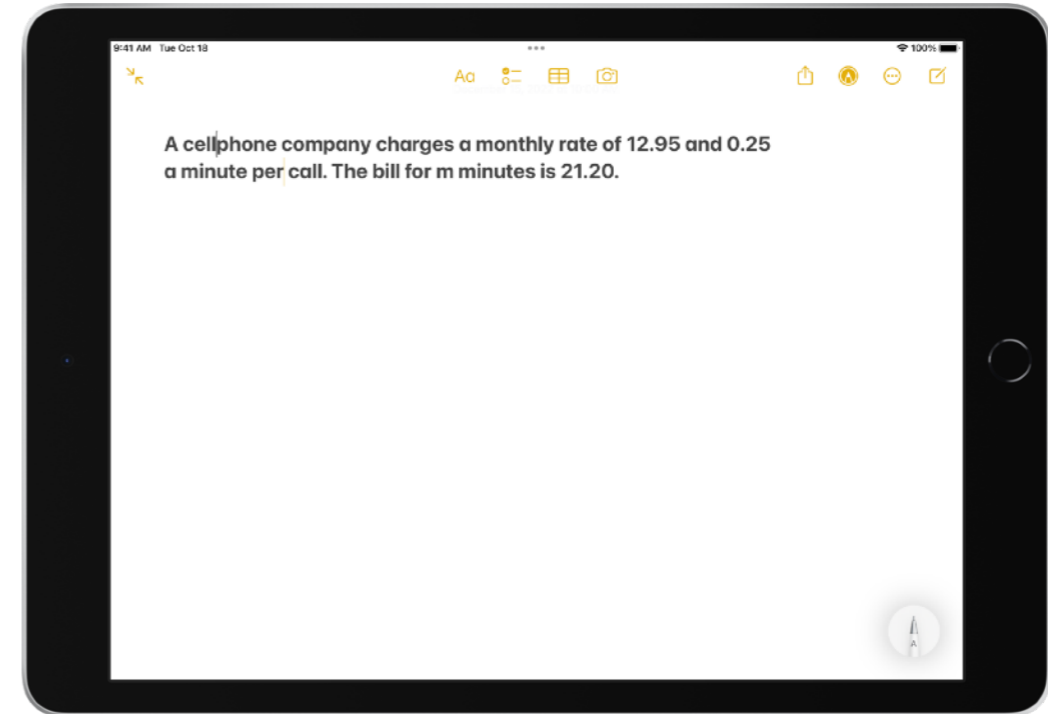
6 Place your Apple Pencil in front of "21.20" and hold the Apple Pencil until a space opens up.

Write "£" to make "21.20" change to "£21.20". Repeat for "12.95" and "0.25".

A cell phone company charges a monthly rate of 12.95 and 0.25 a minute per call. The bill for m minutes is

21.20.

TIP: Tap the screen to open the keyboard and remove unwanted spaces (if Scribble places a space after the "£").
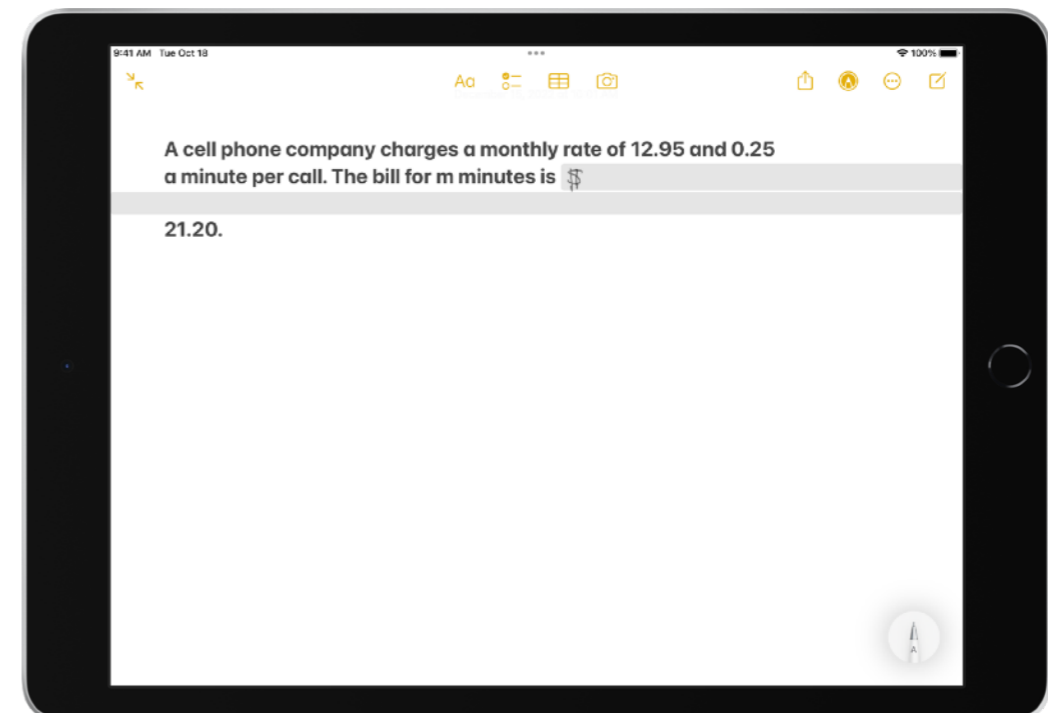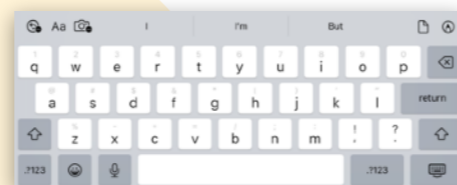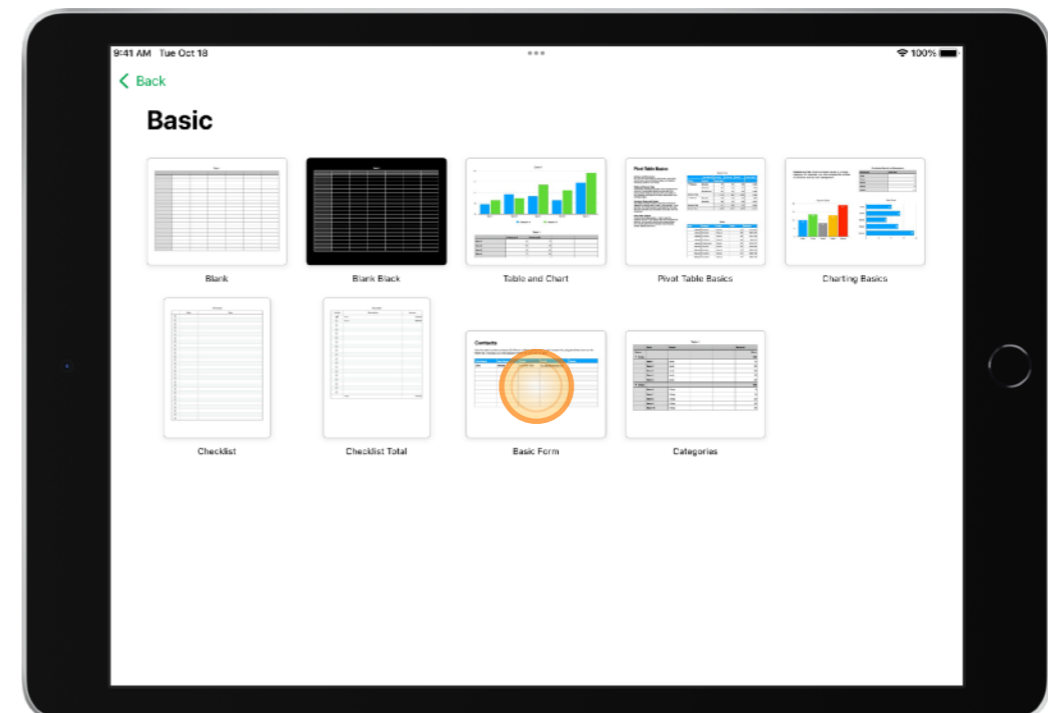
Use Scribble

To Create a Form in Numbers

Use Scribble *To Create a Form in Numbers*

1 Open Numbers on iPad.
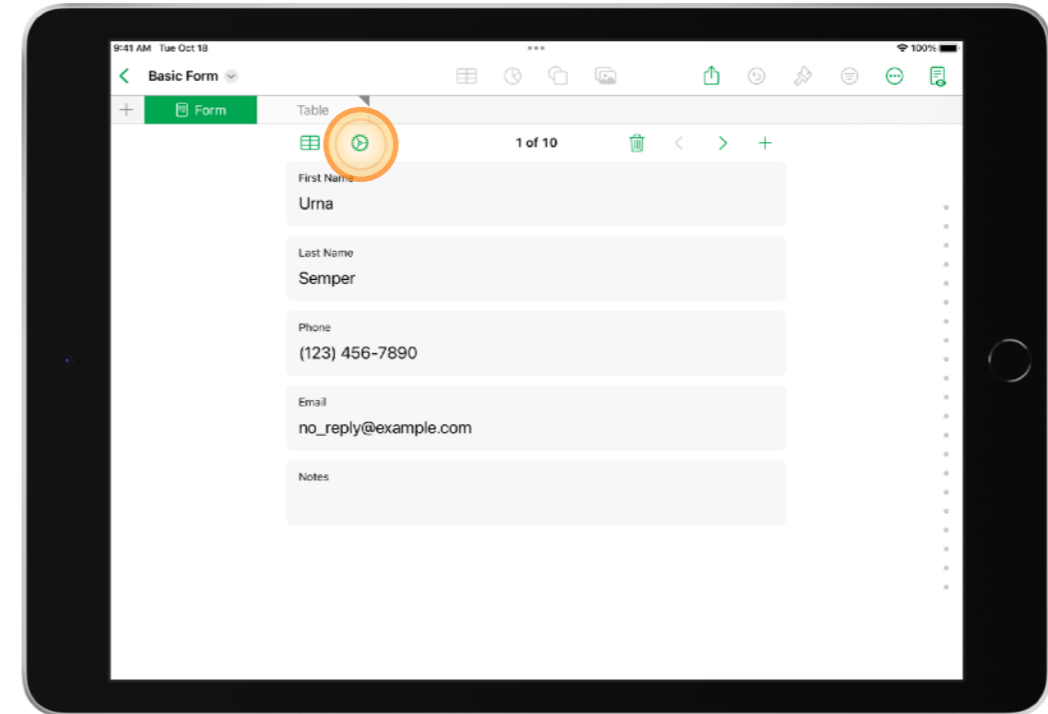
Select a Basic template.
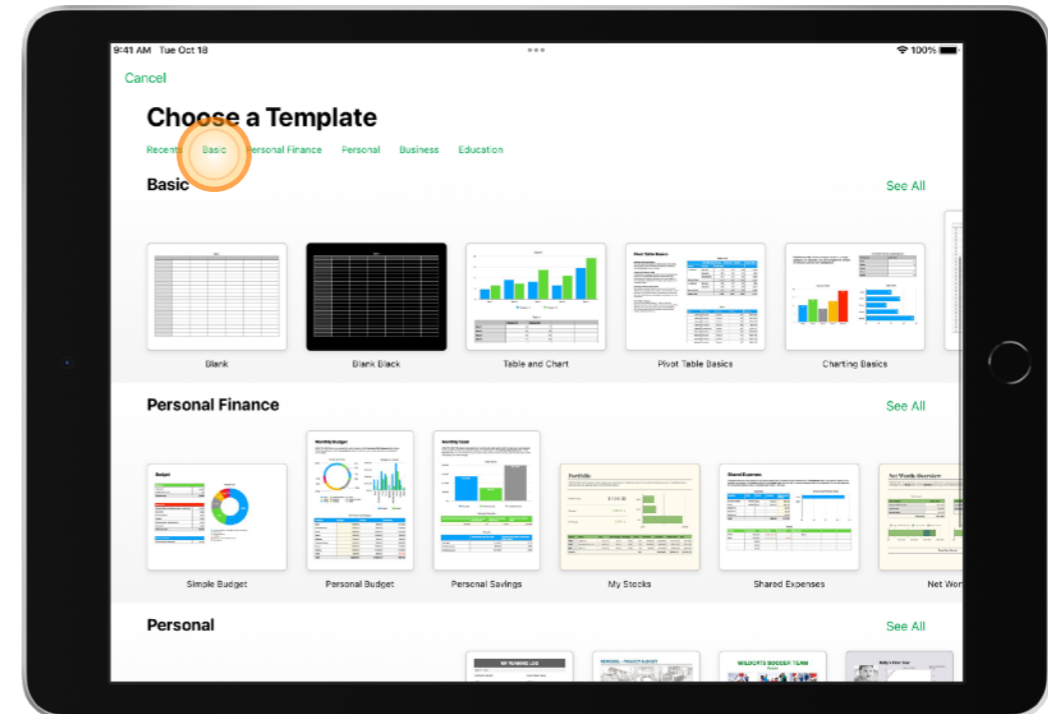
2 Select Basic Form.

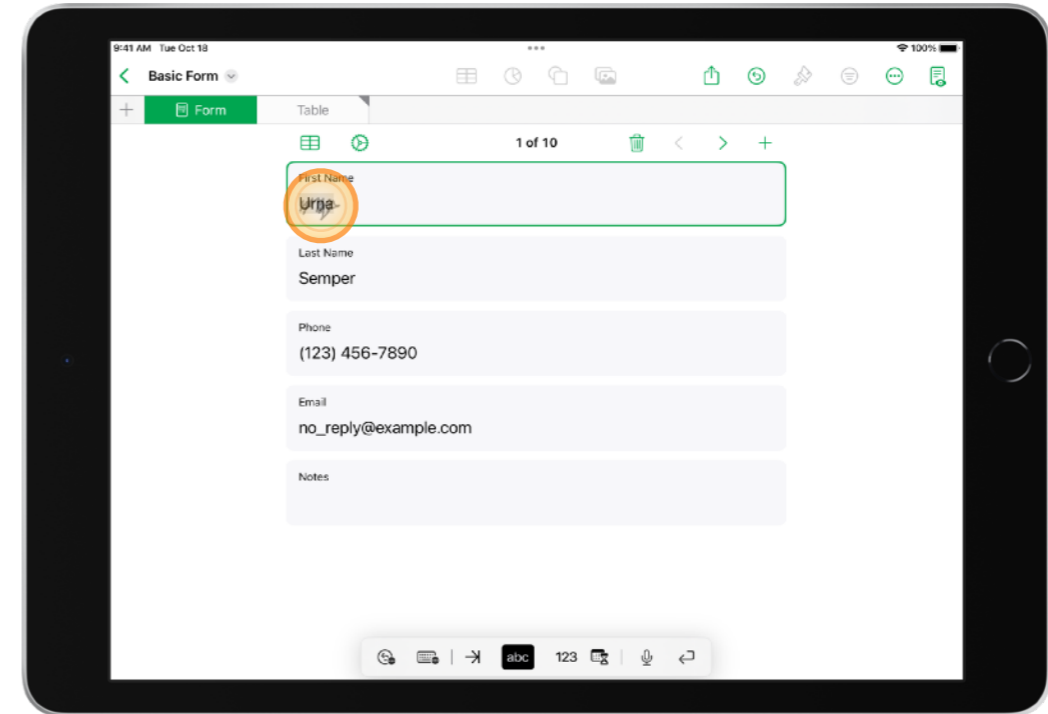**3** Tap the Settings ⚙ icon to open Form Setup.

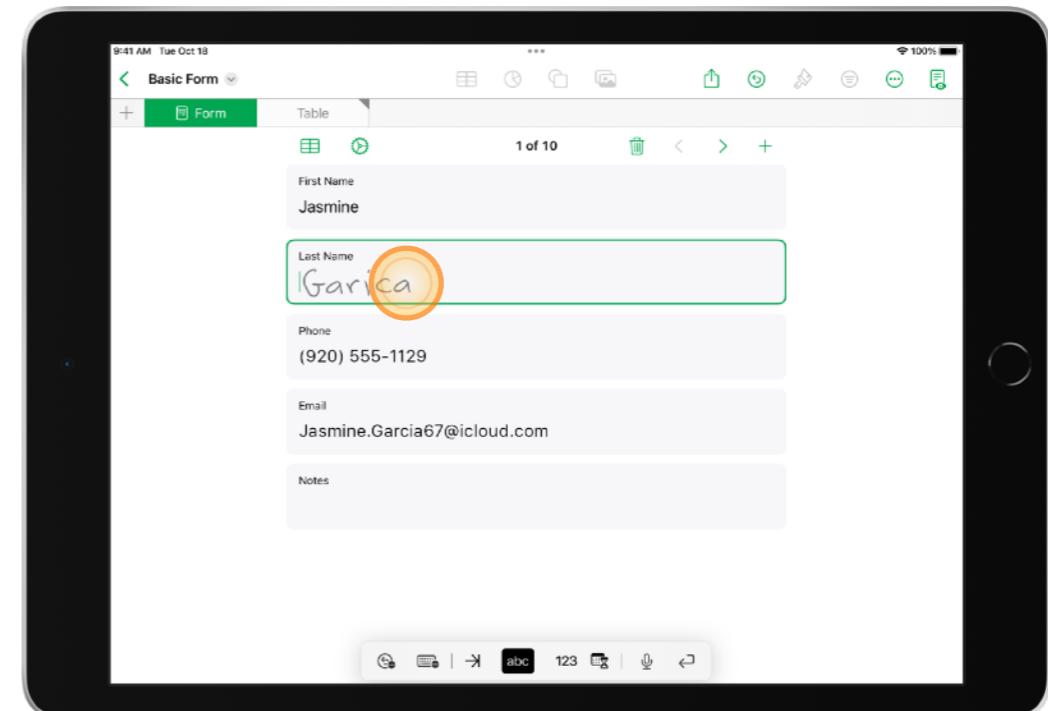

4 Use Form Setup to edit, delete or add fields.
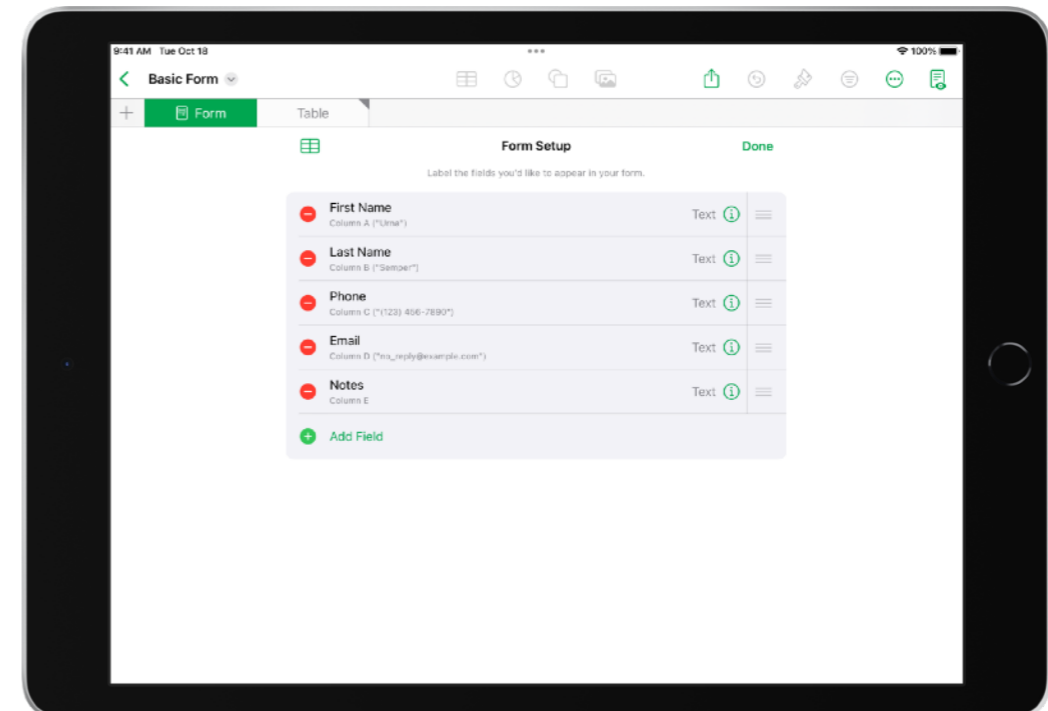
Use Scribble To Create a Form in Numbers

5 Touch any field with Apple Pencil to start editing. Begin by scratching out and deleting the example data in each field.
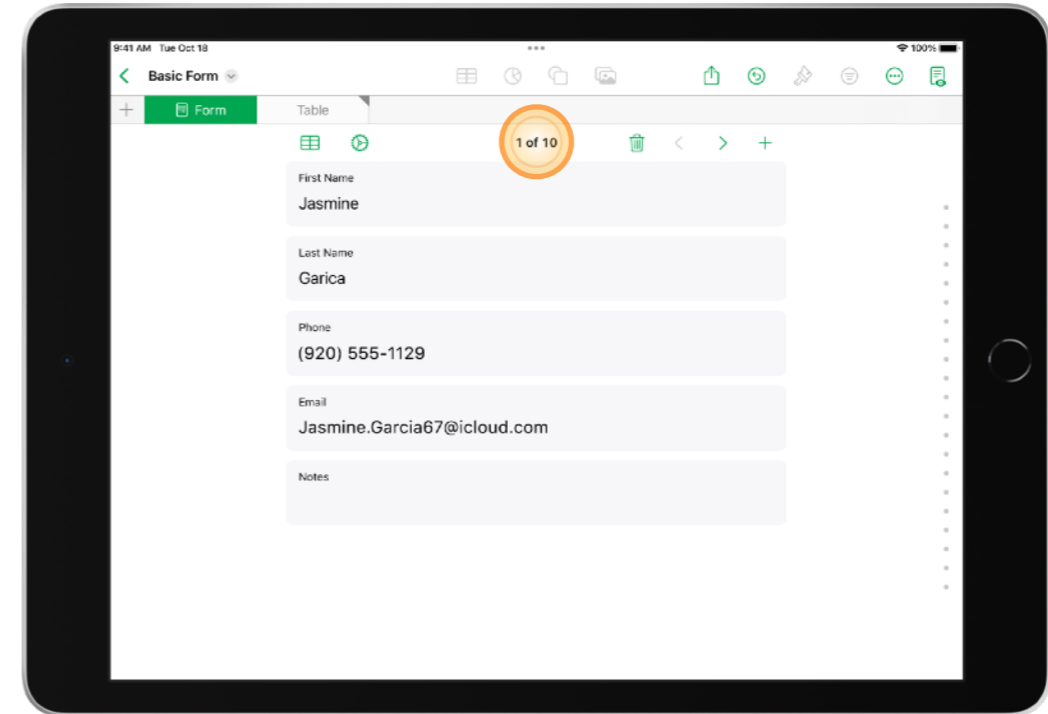

6 Use Apple Pencil to write new data in each field. The data automatically converts to text.
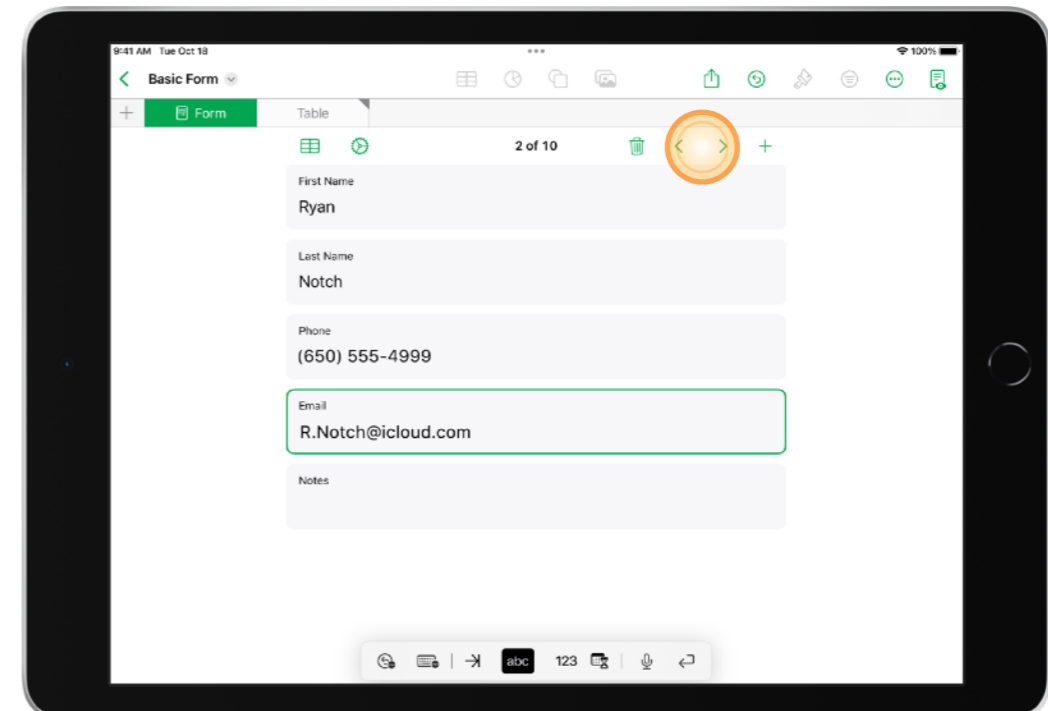
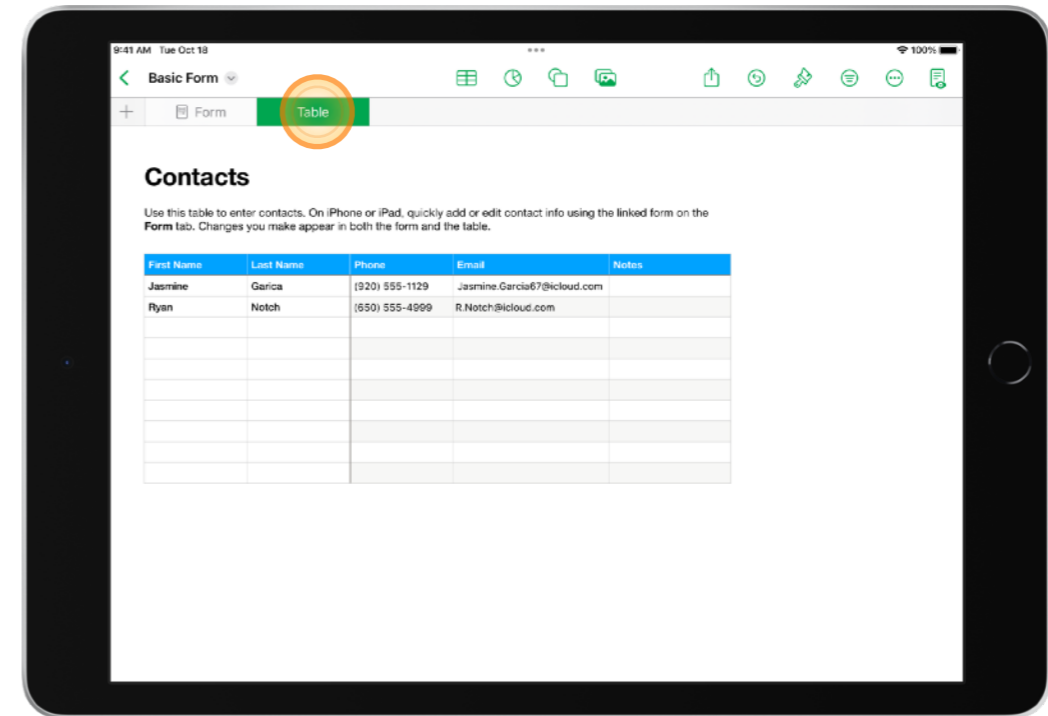**7** Note that you're in record 1 of 10 in the form.

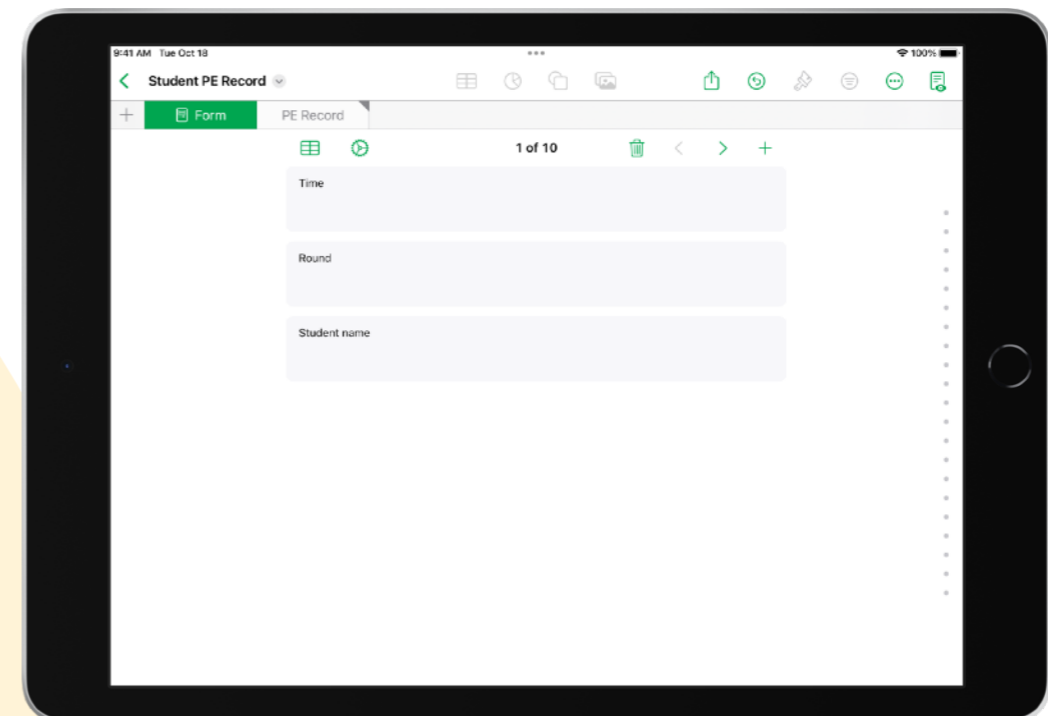**8** Using the ‹ › arrows, move to the next record.

Use Scribble To Create a Form in Numbers

**9** Tap Table to see all of the data in your form.

Use case: In this example, the sheet is designed to collect students' information during a Physical Education lesson.

A teacher can easily write down students' performance during the lesson using Scribble, with no need to open the virtual keyboard.

Tips for using Apple Pencil

Select a handwritten word.	Double-tap the word with your Pencil.
Paste handwritten words as text in the same app or in a different app.	Double-tap, select "Copy as text", tap where you want to paste and select Paste.
Use different tools for different effects.	Select the crayon, eraser, marker, highlighter or Scribble tool from the palette.
Draw fine-tuned shapes in certain apps (for example, Notes).	Draw a shape, then hold Apple Pencil in place momentarily when completing the shape (◯ = ◯).

Tips specific to Scribble

Write in any text field.	Write by hand in any text field, such as the search field in Safari or a text field in Mail. Scribble converts what you wrote to text.
Handwrite an email address or phone number and send a message.	Notes recognises that you wrote an email address or phone number.
Handwrite an address, and open it in Maps.	Notes recognises the address when you tap the keyboard icon.
Insert a word using Scribble.	Touch and hold with Apple Pencil **(it's very delicious = it's very delicious)**.
Select words, cut words and replace words.	Draw a circle around a word – or draw a line through a word.
Join words.	Draw a vertical line between words **(break fast = breakfast)**.
Separate words.	Draw a vertical line between letters **(alot = a lot)**.
Erase unwanted words.	Cross out the unwanted word **(it's very delicious = it's delicious)**.