

Learning at Home

Parents & Carers' Guide



Makers Empire

Learning at Home: Parents & Carers' Guide

Dear Parents and Carers,

Thanks for downloading this guide. We've made it as easy as we can for you and your child to start using Makers Empire 3D. You don't need any design skills or teaching qualifications to support your child in using Makers Empire 3D – just follow the simple steps in this guide and encourage your child as they develop their problem-solving skills and explore their creativity!

Makers Empire 3D is designed to be fun and easy to use for children *and adults* – **so have fun!**

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In this guide:

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1. Getting started with Makers Empire 3D

1. [Download](#) the Makers Empire 3D app, it's free.
2. Log in or create a new account:

If your child uses Makers Empire 3D at school:

They can log in using their existing username and password.

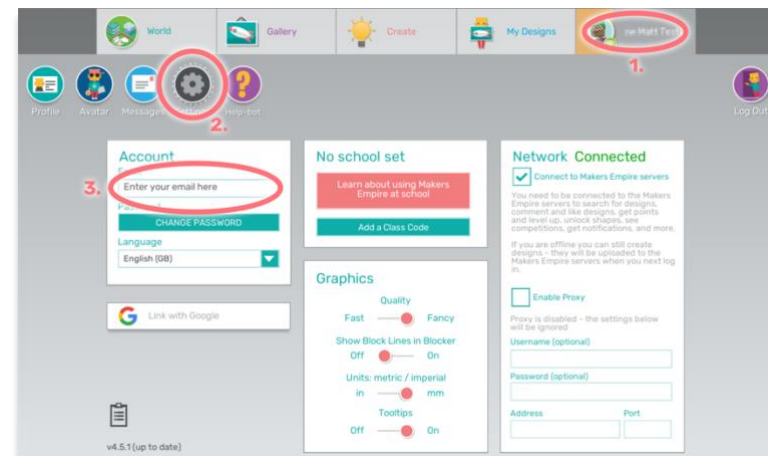
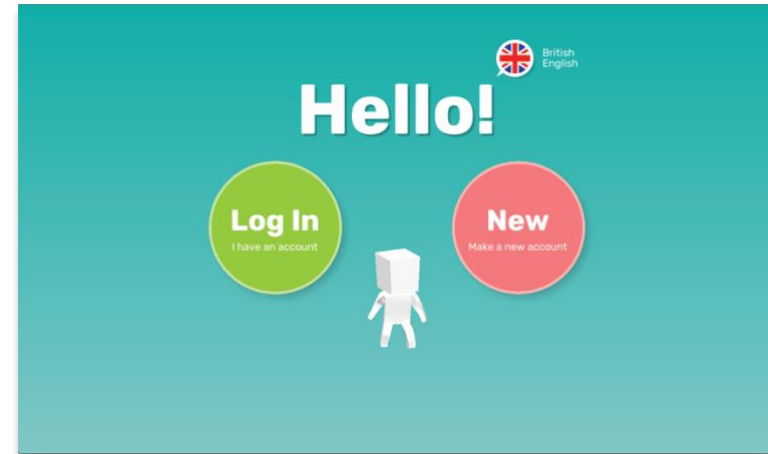
If they've forgotten their log in details you can ask their teacher for help (maybe send them this link to help - [How can I find my students' login details?](#)). If you can't contact their teacher to get their login details don't worry, just create a new account and we can merge the accounts later if requested by their teacher.

If your child has used Makers Empire at home before:

They can log in using their existing username and password.

If your child has never used Makers Empire 3D before:

- Open Makers Empire 3D
 - Click the pink "New" button to create a new user account with your child
 - Create a new avatar, then choose a username and password
 - Skip the steps which ask for a class code
 - When you enter "Maker World" go straight to the Profile Tab (top right of screen), click the Setting icons (the grey cog) and add **your** email address. **If we don't have a valid email address we won't be able to help you or your child if they need help logging in again later.*
3. New users should go through the **Training Lab** to learn the basic 3D design tools and controls used in Makers Empire 3D. If your child hasn't used Makers Empire for a while, it might be worth re-doing the Training Lab course.



We need an email address so we can respond to help requests.

2. Finding Design Missions – from teachers

If your child is using Makers Empire with their class or school, their teacher can assign them work called **Design Missions**.

If your child is not using Makers Empire with their school that's okay, just go to the next section [Finding a Design Mission – for anyone](#) to see how you can access 90 x Design Missions from Makers Empire's learning team.

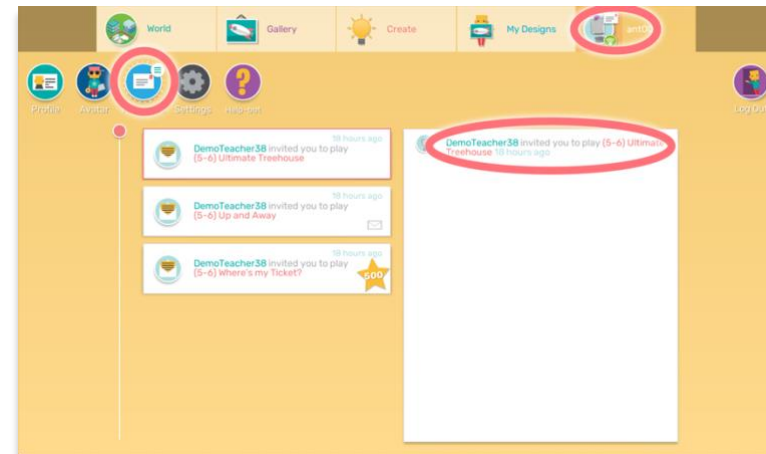
When a teacher assigns a Design Missions for your child, they will receive a message in Makers Empire 3D.

To check messages and start a Design Mission:

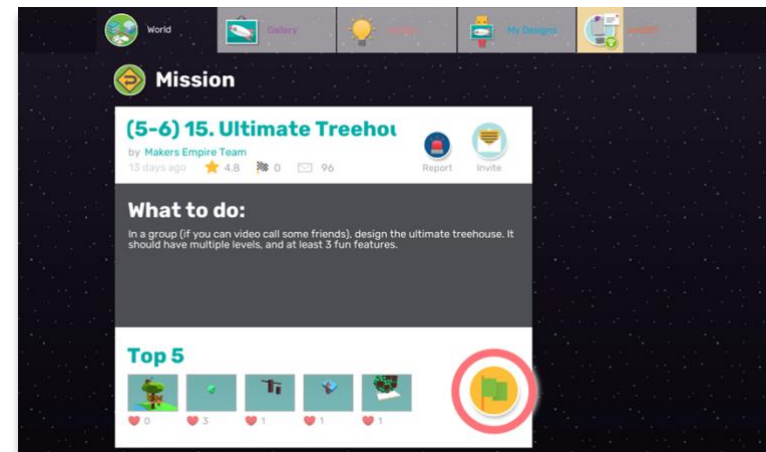
1. Go to the **Me/Profile Tab** (top right).
2. Click the **Messages** (envelope) button.
If your child has a lot of messages, you can click the Messages button again to filter by Teacher messages only*
3. **Click on the message** from the teacher to see the mission brief.
Click **Start** to begin the mission.

When your child completes the Design Mission, their teacher will be able to see the work they have done, and may choose to assess their design.

** There is no general 'chat' or private messaging in Makers Empire. All messages are public and may include: assessments from their teacher, feedback 'comments' on designs and/or notifications when your child receives tokens or another student 'likes' their design. Makers Empire uses a bad word filter and AI sentiment analysis to ensure a safe and positive online environment for all users. Read [Makers Empire acceptable content policy](#) to learn more.*



Check Messages for assignments from your teacher



A mission brief

3. Finding Design Missions – for anyone

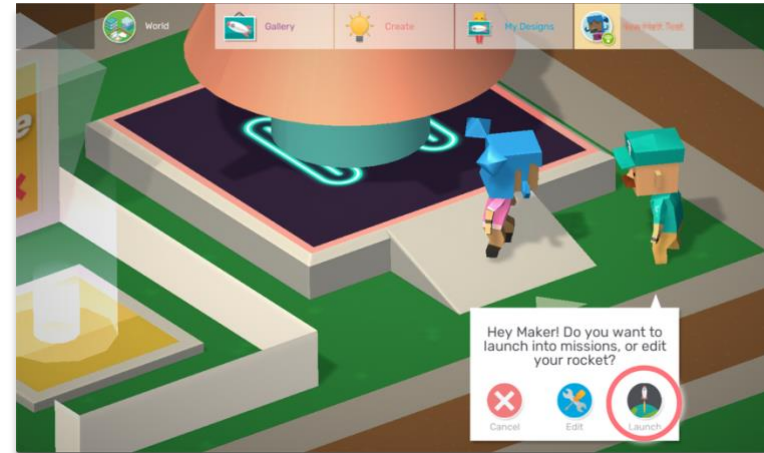
The Makers Empire learning team have created **90 curriculum-aligned* Design Missions** which are accessible to **every user**, whether they use Makers Empire at school or not. Each Design Mission presents your child with a scenario to respond to or a problem to solve.

The curriculum-aligned Design Missions are accessed in **Mission Maker**:

1. Go to **Mission Maker** (the launch pad on the bottom right of screen) and follow the prompts to create a simple rocket ship – that’s the first mission.
2. Once your child has made their rocket ship, they can click “Launch” to browse through all the design missions submitted by users all around the world – but you want to search for **“Makers Empire Team”**.
3. To choose a Design Missions that is suitable for your child, simply type **“Makers Empire Team”** in the **search box** (top right) and scroll down to see the options. All Design Mission titles start with the relevant grade level**, e.g. “(K-2) Terrific Toys” is designed for students from kindergarten to grade 2.

** All the Design Missions created by Makers Empire Team are written by our learning team who are experienced teachers and recognised curriculum experts. Every mission addresses a point from our [Makers Empire Design Curriculum](#), which in turn aligns with ISTE, NGSS, Australian Curriculum, Victorian Curriculum and NSW Syllabus standards.*

*** Your child is welcome to complete Design Missions from any level, you might just need to help with some of the words.*



Visit Mission Maker to explore the available Design Missions



Enter “Makers Empire Team” in the search bar to find our curriculum-aligned Design Missions

4. Helping your child excel

We understand that most parents/carers aren't professional teachers or design critics.

The primary purpose of these Design Missions is not necessarily to create highly polished 3D renders. The real goal is for your child to use Makers Empire 3D as a way explore their ideas and express their creativity. Encourage your child to read the Design Mission carefully, and to write a description explaining how their design fulfils the Design Mission once they've finished it. For younger learners, ask them to tell you about their design.

One simple trick to giving good design feedback and keeping your child focused on the task is to **ask questions** rather than giving opinions. Rather than "It's a bit simple", try "What could you add to make it even better?".

To help you give constructive feedback to your young designers and challenge them to develop their design and problem-solving skills we've given you some tips for each Design Mission:

K-2 Design Missions

Design Mission Title	Ask them...	Look for...
Terrific Toys Wrapping Up	Describe the item you chose to make a copy of. What is it made of? Is it good for the environment, and why? Does it have any other special features?	1. At least 3 shapes, 2. Spent at least 10 minutes on design, 3. Uses at least 3 colours.
Super Powers A Little Help	How does your design help the person who uses it? What features about your design make it especially helpful?	1. Design resembles an everyday object, 2. Spends at least 10 minutes on the design, 3. Uses at least 3 shapes.
Hot Chocolate Tooth Fairy	What does your design need to do? How does it achieve this? What materials or features have you used to make your design work well?	1. Spends at least 10 minutes on the design, 2. Design is rectangular or square based, 3. Includes shapes that have been pushed into the base.
Cook's Helper Toy Memories	What did you investigate? List 3 things you learnt from observing and asking questions. What did you decide would be helpful in this situation?	1. Spends at least 10 minutes on design, 2. Uses more than 2 colours, 3. Uses at least 3 different shapes.

Prickle Pickle Fun for Fish	What is the problem? What is needed to fix the problem? Does your design do a good job of fixing the problem? Why or why not?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Uses more than 2 colours, 3. Uses at least 3 different shapes.
Hurrah for Hats Bedtime Ted	Show your brainstorm of at least 5 ideas and comments. Circle the ideas that made it into your final design and explain why you chose those ideas.	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on the design, 2. Uses at least 2 colours, 3. Uses a hollow shape or the Boolean tool.
Ultimate Car My Colour	Share an image of your brainstorm, with ideas that made it into your final design circled in red. Use the RECORD button to explain the features of your design, and why it is successful.	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on the design, 2. Includes at least 3 colours, 3. Uses at least 3 shapes, including a round shape for eyes.
Favourite Food Block Set	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Uses the correct shapes, 3. All shapes are connected.
Tidy Toys Super Skyscraper	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Design uses correct shapes stacked on top of each other, 3. At least 2 other shapes are connected to the featured shape.
Handy Hook Slurpy Spaghetti	What shapes and angles did you use for your design? Label a picture of your design, showing the shapes and angles you chose, and explain why you chose them.	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on the design, 2. Uses a shape with a flat bottom, 3. Shape is hollow, or Boolean tool used.
Goldilocks' Chair Giant Mug	Label a picture of your design, showing where and how you have made it strong and stable. Why do you think it will be strong? Which shape are strong shapes?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on the design, 2. design includes 2 shapes connected to the platform, 3. All shapes are connected.
Funny Face Clever Cup	How could you test if your design is successful? Describe the things your design must do to pass the test.	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Uses at least 3 shapes, 3. Uses at least 3 colours
Nest Rest Boring Box	What was wrong with the original design? How does your design fix or improve the design so that it will work well?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Uses rectangular prisms or cubes, 3. Uses more than 1 colour.

Marvellous Magnet Four Flavours	Before you start, write down the steps you need to do, in the order you need to do them. How many steps do you need? Did you forget any steps? Could you do it with less steps?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on the design, 2. Uses a cone shape, 3. Adds at least 3 other shapes to the cone shape.
Crazy Shoes Buyer's Basket	Keep a BIG list of ALL the ideas your group comes up with. Then, circle which ideas made it into the final design, and explain why they were chosen. What was fun about working in a group? What was hard about working in a group?	<ol style="list-style-type: none"> 1. Spends at least 10 minutes on design, 2. Uses at least 3 shapes, 3. Uses at least 3 colours.

3-4 Design Missions

Little Hands Sharing Space	Describe the problem you are trying to solve. Describe your design. How does it help the people who will use it? What is its most important feature?	<ol style="list-style-type: none"> 1. Uses at least 5 shapes, 2. Has some shapes raised above the platform, 3. Spends at least 20 minutes on the design.
Rolling Along Fresh Fruit	How does your design help the person who uses it? What features about your design make it especially helpful?	<ol style="list-style-type: none"> 1. Design uses at least 4 shapes including circles or other round shapes, 2. Spends at least 20 minutes on the design, 3. Uses the grouping tool.
Super Slide Granny's Helper	What does your design need to do? How does it achieve this? What materials or features could you use to make your design work well?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Includes a long shape for a handle, 3. All shapes are connected.
Ant Action Weary Work	What did you investigate? List 5 things you learnt from observing and asking questions. What did you decide would be helpful in this situation?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on design, 2. Uses the duplicate tool, 3. Makes at least 3 edits to the design
Top Trophies Button Trouble	What is the problem? What is needed to fix the problem? Does your design do a good job of fixing the problem? Why or why not?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on design, 2. uses the duplicate tool, 3. Makes at least 3 edits to the design.
Slippery Soap Holiday Treasure	Show your brainstorm of at least 10 ideas and comments. Circle the ideas that made it into your final design and explain why you chose those ideas.	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Includes a hole in the design, 3. Design is less than 3cm long/wide.

Pirate Gold Corn Capers	Share an image of your brainstorm, with ideas that made it into your final design circled in red. Use the RECORD button to explain the features of your design, and why it is successful.	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Design has a solid base with a flat bottom, 3. Groups all shapes.
T-Shirt Time Choo Choo	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Design is exactly 50mm in length, 3. Design creates a cavity or hollow section.
Goal! Tree Climb	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on design, 2. Uses at least 3 different tools in the Blocker module, 3. Includes at least 20 right angles.
Quick Slide Comfy Corner	What shapes and angles did you use for your design? Label a picture of your design, showing the shapes and angles you chose, and explain why you chose them.	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Design has mostly symmetrical elements, 3. Design includes no angles smaller than 90 degrees.
Monkey Bars Standing Figure	Label a picture of your design, showing where and how you have made it strong and stable. Why do you think it will be strong? Which shape are strong shapes?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on design, 2. Uses triangles, rectangles or cylinders, 3. Uses grouping tool.
Empty Centre Easy Keys	How could you test if your design is successful? Describe the things your design must do to pass the test.	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on design, 2. Uses Boolean tool or hollow shape, 3. Uses at least 4 different shapes.
Forest Finding Splat!	What was wrong with the original design? How does your design fix or improve the design so that it will work well?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Makes at least 4 edits to the original model, 3. Uses precision tools.
Sandy Shoe Better Backpack	Before you start, write down the steps you need to do, in the order you need to do them. How many steps do you need? Did you forget any steps? Could you do it with less steps?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Uses on more than 5 shapes, 3. All shapes connected.
Creative Castle Our Emblem	Keep a BIG list of ALL the ideas your group comes up with. Then, circle which ideas made it into the final design, and explain why they were chosen. What was fun about working in a group? What was hard about working in a group?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Uses at least 4 shapes, 3. All shapes connected.

5-6 Design Missions

Fancy Gumboots Chair Choices	What two considerations did you have to keep in mind with your design? How did you address them both? Do you think your design was successful, and why?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Includes shapes located on and also above the platform, 3. Uses the Boolean tool or hollow shapes.
Light Me Up Night Light	How does your design help the person who uses it? What features about your design make it especially helpful?	<ol style="list-style-type: none"> 1. Design has 4 circles or other round shapes touching the platform, 2. Spends at least 30 minutes on the design, 3. Includes a rectangular prism.
Eco Objects Dish Duty	What does your design need to do? How does it achieve this? What materials or features could you use to make your design work well?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Shapes have been rotated, 3. Makes at least 3 edits to design.
Pet Perks Play Time	What did you investigate? List 5 things you learnt from observing and asking questions. What did you decide would be helpful in this situation?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Uses precision tools, 3. Uses grouping tool.
Up and Away Safe to Shore	What is the problem? What is needed to fix the problem? Does your design do a good job of fixing the problem? Why or why not?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Uses precision tools, 3. Uses grouping tool.
Super Shelter Snow Sport	Show your brainstorm of at least 10 ideas and comments. Circle the ideas that made it into your final design and explain why you chose those ideas.	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Has made at least 4 edits, 3. Has used precision tools.
Rock On Go Team!	Share an image of your brainstorm, with ideas that made it into your final design circled in red. Use the RECORD button to explain the features of your design, and why it is successful.	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Uses precision tools, 3. Includes shapes aligned at right angles.
Monster Madness Pick a Pattern	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Design includes 20 separate shapes, 2. Design takes less than 20 minutes, 3. Uses the duplicate tool.
Amazing Arena School Map	Explain how your design meets the design brief. What are the key features? Why did you use certain shapes and not others?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Uses at least 20 shapes, 3. Uses precision tools.

Creative Car Mouse House	What shapes and angles did you use for your design? Label a picture of your design, showing the shapes and angles you chose, and explain why you chose them.	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Design is well connected and solid, 3. Precision tools used.
Tough Tent Stable Storage	Label a picture of your design, showing where and how you have made it strong and stable. Why do you think it will be strong? Which shape are strong shapes?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Design is 150mm long, 3. Design has vertical and horizontal components.
Balance Hanger Toast Tool	How could you test if your design is successful? Describe the things your design must do to pass the test.	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Uses no more than 4 different shapes, 3. Uses precision tools.
Risky Rocker Ferry Features	What was wrong with the original design? How does your design fix or improve the design so that it will work well?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on the design, 2. Makes at least 5 edits to the original design, 3. Comments on another design.
Square Set Fast Car	Before you start, write down the steps you need to do, in the order you need to do them. How many steps do you need? Did you forget any steps? Could you do it with less steps?	<ol style="list-style-type: none"> 1. Spends at least 30 minutes on design, 2. Uses precision tools, 3. Makes at least 3 edits to design.
Ultimate Treehouse Where's My Ticket?	Keep a BIG list of ALL the ideas your group comes up with. Then, circle which ideas made it into the final design, and explain why they were chosen. What was fun about working in a group? What was hard about working in a group?	<ol style="list-style-type: none"> 1. Spends at least 20 minutes on the design, 2. Uses at least 4 shapes, 3. All shapes connected.

5. More resources and activities

If your child completes all the curriculum-aligned Design Missions for their grade level, and you're happy with that they've completed them well, there is still lots to do in Makers Empire 3D!

You can challenge your child to:

- Try the next curriculum level up (they might need a bit of help with some words),
- Enter our monthly [Global Design Competition](#) for a chance to enter the Hall of Fame,
- Check out [Makers Empire's Youtube](#) channel and follow along with our "How to" design videos,
- Create and play 3D mazes in [Game Zone](#),
- Go shopping* to create the most amazing avatar 'Looks', or build up your own wardrobe from scratch,
- Write their own Design Missions and challenge other users,

... and of course your child can always just jump in and **create anything they can imagine** using our Create tools (Shaper and Blocker).

**no real money is ever exchanged in Makers Empire 3D*