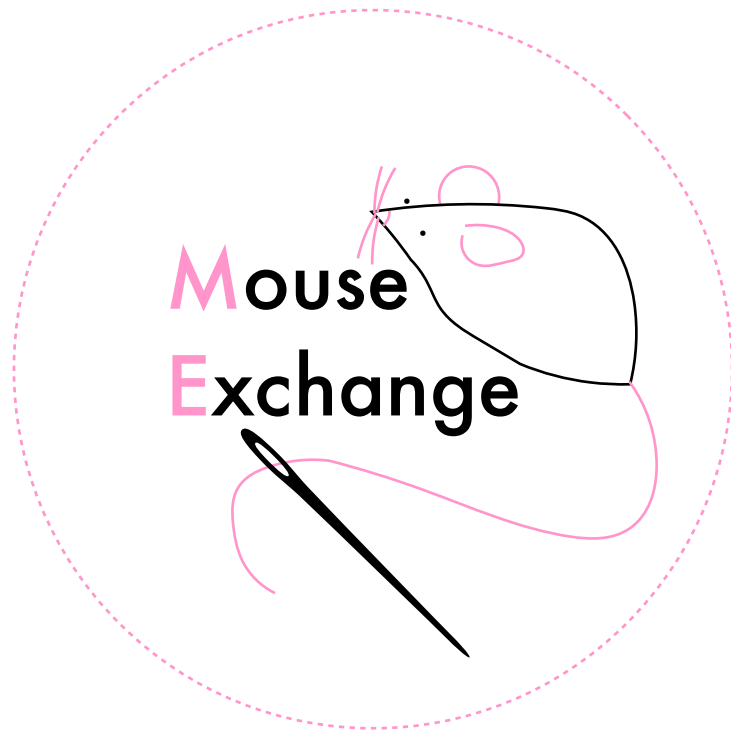


Mouse Exchange Tool Kit



AnNex
Animal Research Nexus

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The Mouse Exchange

The Mouse Exchange (Mx) is a curiosity-driven activity that explores the origins of laboratory mice through crafting and conversations. It forms part of the Public Engagement programme of the Animal Research Nexus.

Our goal was to create a safe, care-full space where participants and researchers can exchange questions, perspectives and experience with curiosity and empathy for people and animals alike.

You can find out more about the project by visiting TheMouseExchange.org



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Aims

This MX toolkit provides guidance about the materials needed to set up a MX event and provides a guide to facilitators about how to hold conversations that meet the aims of the Mx.

The aims are that through Mx conversations and crafting, participants can investigate what is involved in making mice for research and discuss the complexities of creating and caring for them.



Introduction

In the Mx, we seek to avoid the head-on discussion of animal research, but to instead bring attention to the research mouse, its origins and how to care for it.

Animal research has a rich history of emotions, disruptions, disagreements and agreements extending around it.

The research animal is a consistent presence yet often overlooked in terms of its existence beyond the bounds of the experiment.

Finding ways to collectively enable participants to hold an interest in the lives of laboratory animals is important because it opens the field of engagement beyond narrow awareness that animals are used in science.

Experience has shown that holding a felt research animal in one's hands, gives participants a different stake in animal research.

Feelings surrounding the life experience of the mouse can be made and expressed that exceed objective facts about the research animal industry, its animal welfare standards and binding ethical principles.

**There is no
'right' way
to do a
Mouse
Exchange**



**It is an
ongoing
experiment**

The Basics

Developing the Mx has been an interactive process. Each time we have learnt something new from our participants, added things, removed things.

The basics have always been the same; we invite participants to sit at a table and make a research mouse from crafting materials and talk about the process.

We suggest you start here too. Start small, maybe with your family, or friends, or colleagues. See how it feels and what questions the processes brings up.

Facilitation

What takes-place in the Mx is the outcome of the work that we - participants and facilitators - collectively perform and consent to.

Facilitators need to support participants to not only become makers of mice but also making their own opportunities for reflecting or learning. It is important to not talk at them but respond to expressions of curiosity.

Many educational “conversations” are structured around showing participants they lack knowledge. There is a deficit, which you, as expert, can correct. Knowing you don’t know can become a barrier to participating.

Many people will not know about laboratories or the animal research conducted in them. It is easier to participate if you feel you do know something and it feels good to build on it. This is curiosity. As a facilitator you need to ask questions that allow participants to share what they do know and if they want to know more.

Instructions of what to do are conveyed through talk and observing what others are doing (there are no written instructions). The absence of information is part of the process of creating curiosity and generating questions articulated or thought.

We shape the talk, the feelings, the thinking around the Mx table by recognising that thought and talk is generated in relation to the context.

Conversations happen simultaneously to the making. The facilitator doesn't have to direct, but instead can let participants draw on their own curiosity through what they are doing with their hands, or what they chatter, or ask questions, about.

Space is made for talk, but it doesn't have to be forthcoming.

Facilitators are asked to let go of the need to control what responses are uttered. This might be a very different approach than you are used to. It can feel difficult at first but it can be extremely rewarding.

The actions of the facilitator in enabling conversation are supported by the table itself and what it offers by making participants feel involved in a group activity.

The Mx offers a seat at a table where certain hierarchies and power imbalances can be set aside, and people should feel empowered to lead their own knowledge-creation, co-authoring content with those sat around them.

The table is a hospitable place for people to engage with the topic in their own terms, without casting out certain responses and/or degree of knowledge as being unacceptable.

The table is the gathering point for experiences and conversations, with makers coming and going, their experiences overlapping in the space.

With differing points of view, the conversations do not crystallise, but keep changing. Each mouse and each conversation will be different.

Participants

Participants are invited to take part in an open process of knowledge- and meaning-making where they take the lead in exploring the topic, directing what is spoken about and what isn't. The learning objectives are not a set of facts, figures or ethical guidelines; they are not an audience on receive.

Participants may opt to stay in their established habits of thinking; perhaps, knowing very little about research animal origins and lives, and it **is then up to them** whether they ask questions about the other Mx objects around them.

Participants may talk about mice lives they have come in contact with and move to the research mouse life if and when they are comfortable. Participants may not share their thoughts or feelings out loud.

At the table, everyday tasks take-shape that are alien to the public but everyday to those working within animal research facilities.

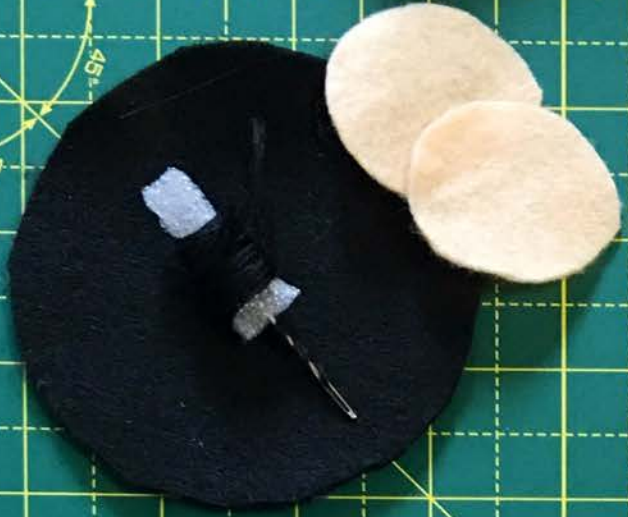
We find that making something tactile and tangible enables feelings towards the animal to develop; it equally allows issues and themes that arise in conversation to evolve into more meaningful concerns, rather than abstracted facts.



SELF-HEALING CUTTING MAT
5 LAYERS

SHOULD NOT BE EXPOSED TO HIGH TEMPERATURES
DO NOT USE FOR CUTTING METALS
OR OTHER HARD MATERIALS
OR OTHER MATERIALS THAT MAY DAMAGE THE MAT

ORIGINAL



2"
2.5"

Structure

The first versions of the Mx had participants make a mouse from scratch. They would select some coloured felt and cut out one seven cm and two two cm circles, and thread a needle with the colour of their choosing.

To make the body, they would fold the large circle in half, forming a taco shape, and stitch the sides closed, in whatever style they liked, but leaving a 2cm gap. They would then push stuffing through the gap and pad out the mouse body, making it as fat or thin as they wished. They gap would be stitched closed, leaving extra thread to form the tail.



The smaller circles became ears by pinching them to form a teardrop shape, and stitching one to each side of the head. Eyes were added using only the thread, some participants used cross stitch and some loops, some preferred to draw on the eyes with a pen. Finally, but essentially, loops of thread were stitched through the nose of the mouse, and cut to make whiskers.

Participants then completed a mouse passport and the Mx experience was complete.

We found that this structure made most of the conversation crafting instructions and not about the mouse. We also found fifteen-twenty mins to be the most amount of time participants wanted to spend making a mouse. We wanted them to spend more time thinking about the mouse they had made so shortened the making process. Now the Mx begins with pre-made mouse bodies that participants add the sensory organs to and bring to life.

Making a mouse and filling out a passport are the only essential components.

The following are all additional elements we added. They all invite different questions. You can decide which to include as you make your own Mx version.



Passport

We ask mouse makers to complete a passport about their mouse. It has evolved over time from a simple, two-question prompt to a more detailed form that includes data like the mouse's name, place and date of birth as well as information about their phenotype (what they look like), character, and instructions for their care, including who they want to care for them. We also ask makers about their hopes and expectations about the future of their mouse.

The form is titled "Passport" and is set against a blue background. It consists of several sections:

- ID:** A single-line text input field.
- NAME:** A single-line text input field.
- DOB:** A single-line text input field.
- POB:** A single-line text input field.
- COLONY:** A single-line text input field.
- MAKER:** A single-line text input field.
- PHENOTYPE:** A large rectangular text area for describing the mouse's appearance.
- CHARACTER:** A large rectangular text area for describing the mouse's personality.
- INSTRUCTIONS FOR CARE:** A large rectangular text area for providing care instructions.
- WHAT DO YOU HOPE HAPPENS TO THEM?:** A large rectangular text area for expressing future hopes.
- WHO WILL CARE FOR THEM?:** A large rectangular text area for naming caregivers.
- CAN WE SHARE THIS WITH OTHER PEOPLE?:** A checkbox question.
- PLEASE TICK:** A column of checkboxes corresponding to the "CAN WE SHARE THIS WITH OTHER PEOPLE?" question.

Together, the mouse and the passport make up the primary units of the Mouse Exchange and embody something of the experience after the event is complete.

Story Cards

We introduced two types of story telling prompts; order cards and chance cards, which were printed and put face down on the table. Participants picked them at random.

Order cards contained a request for mice. For example:

Researchers at a university in Britain are studying the function of a gene called Sot1 in the mouse. They think the human equivalent of this gene may be involved in a genetic disease that affects the kidneys of children.

They are asking you to make the mice with a mutation on this gene so that they can study how their bodies develop and whether they have any health issues.

Please use the C57Black6 strain to get started.

Chance cards directed how those mice were to be made. They could make a brand new strain or have to resurrect an existing strain from the biobank.

You learn from searching www.findmice.org that this genetically altered strain already exists. The scientists that created it have deposited it in a biobank so that other scientists can use it.

Go to the Biobank and pick up your mice in the form of frozen embryos.

These were ways to introduce the other story telling props. You could write your own that relates to your own research.

Biobank

It maybe that a participant is invited to 'resurrect' a mouse strain from the biobank, rather than create a completely new one themselves. Our Biobank is a repurposed picnic cooler filled with ice packs. Participants collect frozen mice embryos (pre-made bodies) that are stored inside and bring them back to the table.



Heat Lamp

Waiting for the embryos to warm up creates a pause where we can begin to talk about the way mouse strains circulate within the animal research community and to think about freezing down strains as a form of animal welfare.



We used clear plastic food containers with a red LED light.

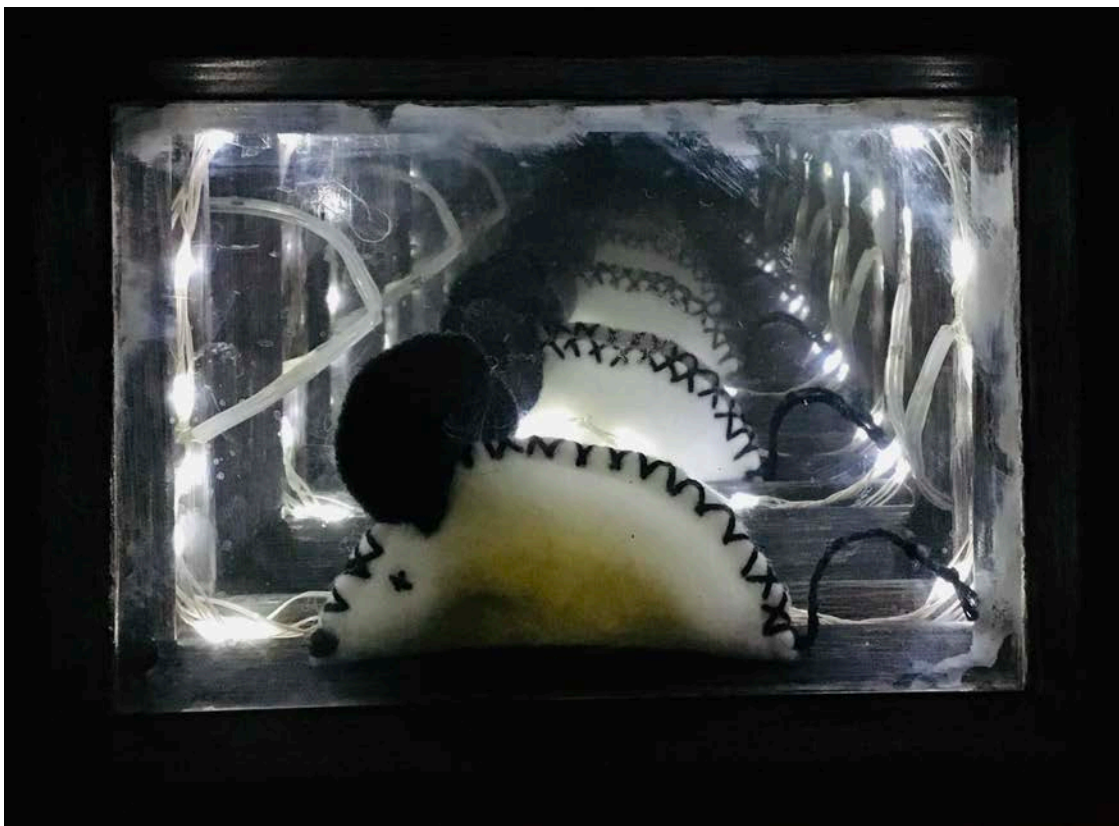
Ear Punch



Participants use the ear punch to make a hole in the mouse's ear and the passport and connect the two with a tag. In carrying out the same movement as an animal technician might do, they can learn about the use of ear notching as a means of identification and source of tissue for genotyping, and it may (or may not) raise an affective response as they metaphorically cut some of the body of the animal they've just created.

Infinity Box

At the end of the activity, participants are invited to put their mouse inside the Infinity Box and see their mouse multiplied into many animals. As they watch their single unique mouse become many indistinguishable mice we start to ask about caring for an individual versus caring at scale and what kinds of responsibilities and care does a maker have for the future of their colony?



We use this as a way to illustrate practical ethics questions that may not be necessarily covered by regulation but that are always there when making life.

There are lots of YouTube tutorials to learn how to make these. We used a deep picture frame, shaving mirrors, two-way mirror film and battery powered fairy lights

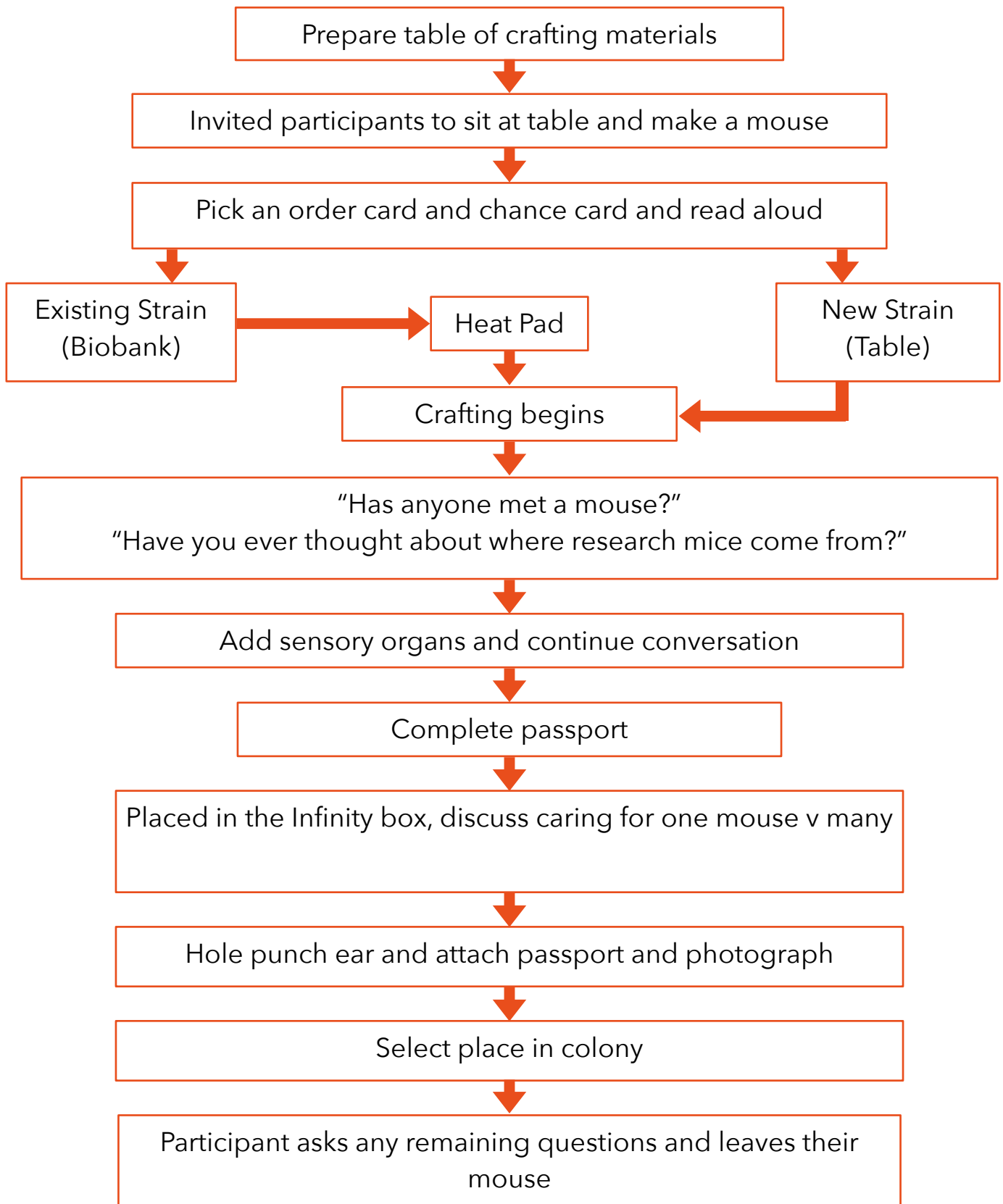
Colony Display

Originally, participants could take their mouse home, or swap it for another. We now ask all participants to leave them behind. We have used cupboard shoe organisers to create colony display cases which slowly fill up throughout the day.

Participants browse the other mice in the colony as they decided where to leave their mouse.



Flow Diagram



Ordering (Mice)

Felt - 1mm Polyester Felt in flesh, white and black. A good starting pack would be to purchase 3 x 0.5metres x 1 metre wide of each colour (£3 each).

www.woolfeltcompany.co.uk

Thread - Pilleay 24 Skeins Black and White Embroidery Cross Stitch Threads Cotton Embroidery Floss, Friendship Bracelets Floss with 12 Pieces Floss Bobbins. Black and White (£6.59)

www.amazon.co.uk

Stuffing.- 1kg hollow fibre stuffing, high grade multipurpose filling for toys, pillows, cushions and teddy bears. Non-allergenic, machine washable. (£6)

www.amazon.co.uk

Needles - ALEX 28pcs Big-Eye Hand Sewing Needles Large Eye Stitching. £4. www.amazon.co.uk

Scissors - from any craft or stationary store

Thimbles - LumenTY 20pcs Sewing Thimbles Metal Finger Protectors. £7. www.amazon.co.uk

Mouse Passports - print out double sided from here <https://tinyurl.com/MxPassports>

Ordering (Extra)

Biobank - any type of cool box and icepacks (domestic or laboratory)

Heat Lamp - Any clear container + a red LED light such as (Everbeam E200 LED Bicycle Lights Front and Rear Rechargeable, (£Various) www.amazon.co.uk

Ear Punch - Fiskars Hand Punch, 1/16" Small Circle, For Punching Small Circles, for left and right handed users. (£10) www.amazon.co.uk

Tags ??? any craft and stationary store

Infinity Box - <https://tinyurl.com/MxInfinityBox>

Colony Display - NA 2 Pcs Polyester Wall Hanging Wardrobe Storage Waterproof Door Hanging Storage Bag Shoe Rack Hanger (£Various) + Bahob® Lightweight Height Adjustable Clothes Garment Rack Storage Hanging Rail with Wheels (£22) www.amazon.co.uk

Paper table cloths - flipchart paper

Sharpies - any craft and stationary store

Summary

This toolkit is distributed under Creative Commons License - CC BY-NC-SA. You are free to adapt our Mx for your own purposes without seeking prior approval from us. However, please acknowledge the Animal Research Nexus in your creation.

The academic reference for citation purposes is: Crudgington, Bentley, Sara Peres, Paul Hurley and Emma Roe 2021 The Mouse Exchange Toolkit, tinyurl.com/MxToolkit

Please let us know how it goes or send us a link to your work. You can email us AnimalResearchNexus@exeter.ac.uk or tweet us @AnimalResNexus



The University of Manchester

