



ELECTRONICS TINKER TRAY

Materials you need:

A tinker tray is like an inventor's tray. A tinker tray might have a theme like this one or just filled with a variety of materials to make whatever a child's imagination can dream up! Make a contraption. Make a gadget. Make your very own invention! A tinker tray is so much more than a craft activity and the learning outcomes can evolve in many ways. Start with some of the ideas below then why not have a go at creating your own versions!

- A tray or container (preferably with dividers but not essential) Paint trays, dip trays and cutlery trays work well and are inexpensive resources.
- Real tools like screwdrivers, wrenches, Allen keys, wood glue, pliers.
- A table or stable surface indoors or out, magnifying glasses.
- Loose parts and recycled materials to tinker with like old keyboards, electronic items, old toasters, typewriters, phones, nuts and bolts, tin cans, lids – whatever you can access that you have first checked for safety that could be merged to create something new.

Setup for play:

- Setup is simple – add everything to a table or easily accessible work space then share a prompt or two with the children to get the creative and imaginative cogs working on their own. Make sure to let the children lead the play but be close by to offer help or problem-solving support if requested.
- You can also sit close by and begin dissecting something from the tinker tray to model using the tools and evoke their curiosity.
- Try some of the following questions to initiate invention! “Could you build something you would like to play with in block corner?” “What could you build for Mum to use at home?” “How could you take that toaster apart? Be careful not to prompt or guide to much as ultimately this should be a child led activity!

What are they learning with this activity?

As the children investigate the materials and tinker to pull apart and recreate they are learning to:

- Use hand/eye coordination skills and increase their spatial awareness
- Use descriptive language and become independent communicators
- Experiment with cause and effect
- Recognise symbols and how things can represent other things
- Strengthen fine motor muscles, visual motor integration and control
- Manipulate objects to explore motion, cause and effect
- Explore simple scientific concepts through play and hands on investigation
- Express their ideas creatively to help make meaning
- Manipulate equipment and real-life tools with increasing competence
- Use their play to imagine and explore ideas
- Problem solve and make decisions to meet their needs
- Persist even when they find the task difficult
- Create with different mediums and textures
- Manipulate small objects using pincer movements
- Work independently on a project
- Recognise their individual achievements and successes – show pride in their work
- Test predictions through exploration and experimentation.

Extending the play:

- Introduce different materials, different trays and let the play evolve. You might like to keep a tinkering table in the corner of the room for children to access any time – change materials around each month.

