Terrific Topic—Week 5

This week we're going to be thinking about moving toys, and learning a little bit about the simple forces that make them move and investigating how they move. We'll also be making our own moving toys.

Wed pm: Forces: Push and Pull

Vocabulary: force, push, pull

Watch the "Push and Pull Explanation", and the "Forces: Push and Pull" videos on the video page to learn about forces and motion. Can your child explain the videos to you (to check their understanding)?

Next choose either the **Peg Cards** PDF to choose either 'pull' or 'push' to peg (more Yr R), or sort the **Photographs** into 'push' or 'pull' piles, asking your child to talk about the activities to explain why they have chosen 'push' or 'pull'.

Thursday pm: Investigate how your toys can move in different ways.

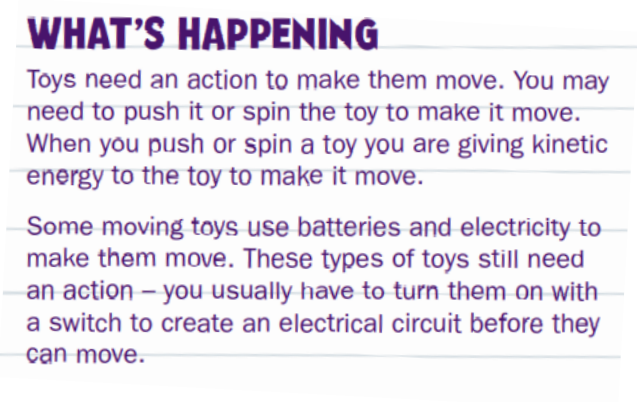
First watch the **Moving Toys video** on the video page.

Next I would like you to find a selection of your toys that can move, eg toy car, ball, spinning top, doll with moving parts etc …

Whilst playing with the toys, investigate and ask these questions:

How does it move? - does it roll, slide, bounce, spin?

What *part* of the toy is moving? What shape is the moving bit? How is it moving?



WHAT'S HAPPENING

Toys need an action to make them move. You may need to push it or spin the toy to make it move. When you push or spin a toy you are giving kinetic energy to the toy to make it move.

Some moving toys use batteries and electricity to make them move. These types of toys still need an action – you usually have to turn them on with a switch to create an electrical circuit before they can move.

How do we *make* it move? (ie what action is needed to make it move — what is the force? push/ pull)

Your task is to choose your three favourite moving toys, draw them on the **My Moving Toys worksheet**, and describe how it moves, using the questions above to guide you.

Different toys will move in different ways, have different parts that move and will require different actions to make them move. I've also put a V&A information sheet about moving toys on the website for parents, in case your child chooses a 'tricky' moving toy!!!

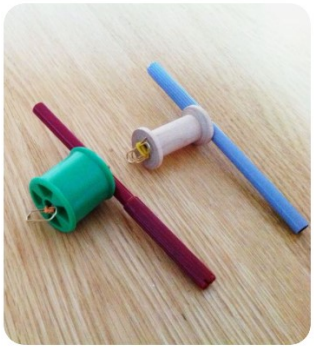
You could also go to the park and investigate what can move and the different ways that you can move i.e. You can slide down the slippery slide. Swing back and forth on the swing. Move up and down on the seesaw. Spin round and round on the roundabout. What force (push or pull) are you using to move?

Friday pm: **Now it's your turn to … Make a Moving Toy!**

For your task today, I would like you to make your very own moving toy. You may choose which toy you will make: I have put some ideas on this page and the next with links to detailed instructions. You only need to make ONE toy—not all of them!!!!! Can you talk about how it moves, and which force is used?

If you would like a more structured DT moving toy activity, then see the '**How will your Roly-Poly Move?**' PDF, which gives design ideas and teaches DT skills.

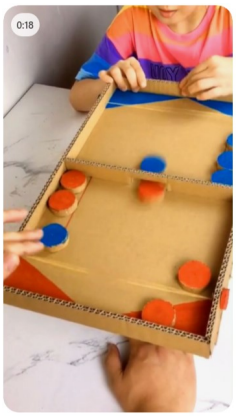
And – purely for your delight—I have put a video of 'Bagpuss' on the video site, with toys having fun when no-one is around —which finishes with a very lovely moving toy!



Science: Make your own Spool Car

An Ordinary Life : Science: Make your own Spool Car

LEGO Gravity Rollers: A Fun Contraption That Propels Itself! - Frugal Fun For Boys and Girls (frugalfun4boys.com)



How to Make a Parent-Child Game Player from Cardboard | Home activity - Science Experiments for Kids - Ronyes Tech

How to Build Balloon-Powered LEGO Cars | Mombrite

Paper Helicopter DIY - STEM for Kids - Red Ted Art - Make crafting with kids easy & fun

Science for kids - Vehicle challenge

Science for kids - Vehicle challenge (science-sparks.com)

DIY Paper Spinner for Endless Fun | Make and Takes

https://pin.it/4b99KvE

Paper mouse / Moving mouse /Paper Craft /DIY - YouTube

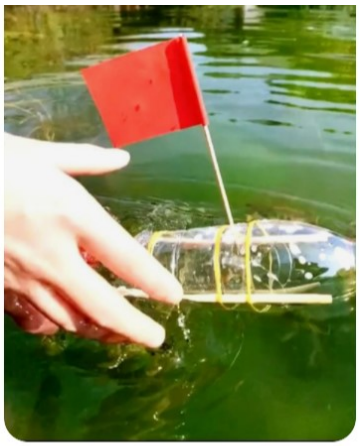
Twirligig- Rainbow Paper...

Twirligig~ Rainbow Paper Spinner Toy - Teach Beside Me

[How To Make A Rubber Band Car | Little Bins for Little Hands]

(scroll down for instructions)

[Relentlessly Fun, Deceptively Educational: 2 Paper Flyers]



Rubber band powered boat...

https://pin.it/79mCpeE

Energy Carousel Experiment from Science-U @ Home

[Science-U @ Home / Energy Carousel Experiment (science-u.org)]

Creative Paper DIY Handy...

https://pin.it/xS0Pgu7

https://pin.it/fhKf98s

[Conveyor Belt Cinema (kiwico.com)]

[20+ Spinning Top Crafts and Science Activities for Kids - Buggy and Buddy]

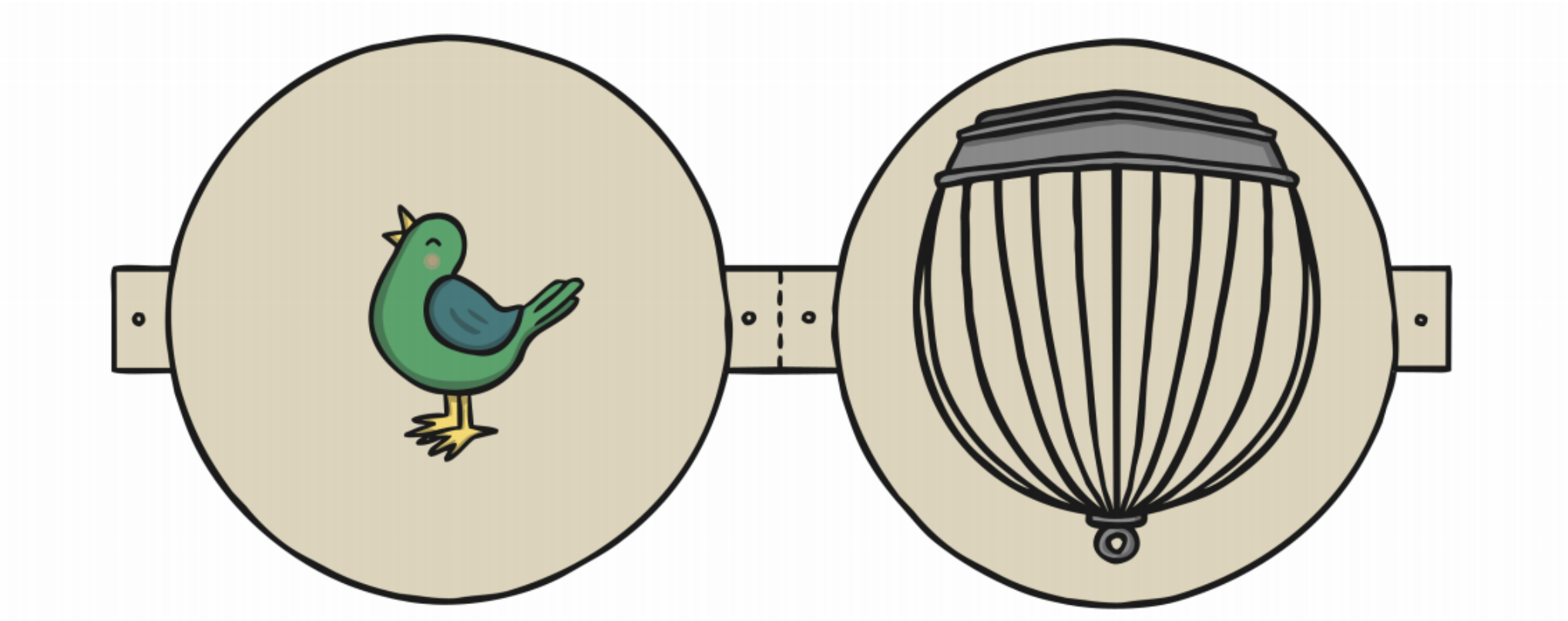
PLEASE REMEMBER THESE ARE JUST IDEAS AND YOU ONLY NEED TO MAKE ONE MOVING TOY, NOT ALL OF THEM!!!! Feel free to use your own ideas too. The choice is yours – have fun!!

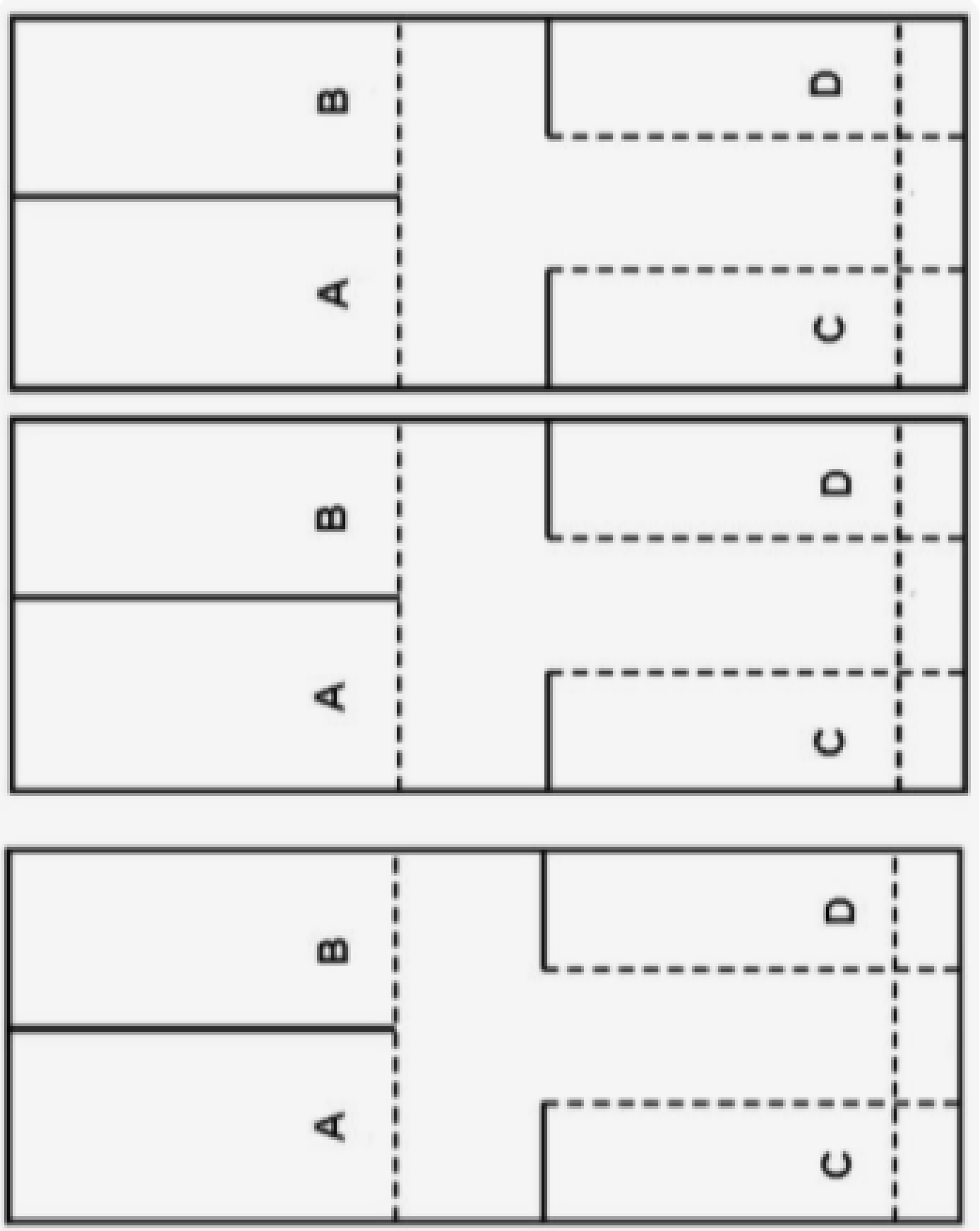
[How to Make a Kite - Buggy and Buddy]

Thaumatrope Template

Instructions:

- Cut carefully around the template and fold along the dotted line in the centre.
- Glue the two sides together and punch a hole through the two dots on either side.
- Attach some string through each hole, making sure it's secure enough for when you stretch it out.
- Twist the string by flipping the disk round then pull and the disk will spin, making the bird appear as though it is in the cage.





Paper Helicopter Template - Free