

Water slide challenge

A new swimming pool has just opened in Funtown. There were big queues on the first day as everyone was excited to try out the mega tube slide but, it was a big disappointment!

"I got stuck inside" sobbed one boy.

Mr Splasher, the swimming pool owner was very confused "I don't know what went wrong, the zigzag shape looked so cool" he moaned. "We need a new slide and quick! Can anyone help me?"

..... Your challenge

Using the materials provided, design and build a model water slide that looks fun and works well.

Things to think about

Why do you think the zigzag slide didn't work well?

What could you do to improve it?

What could you do to make sure children can't get stuck inside?

What shapes are best for slides?

What makes a water slide fun?

What could you use to make your model waterproof?

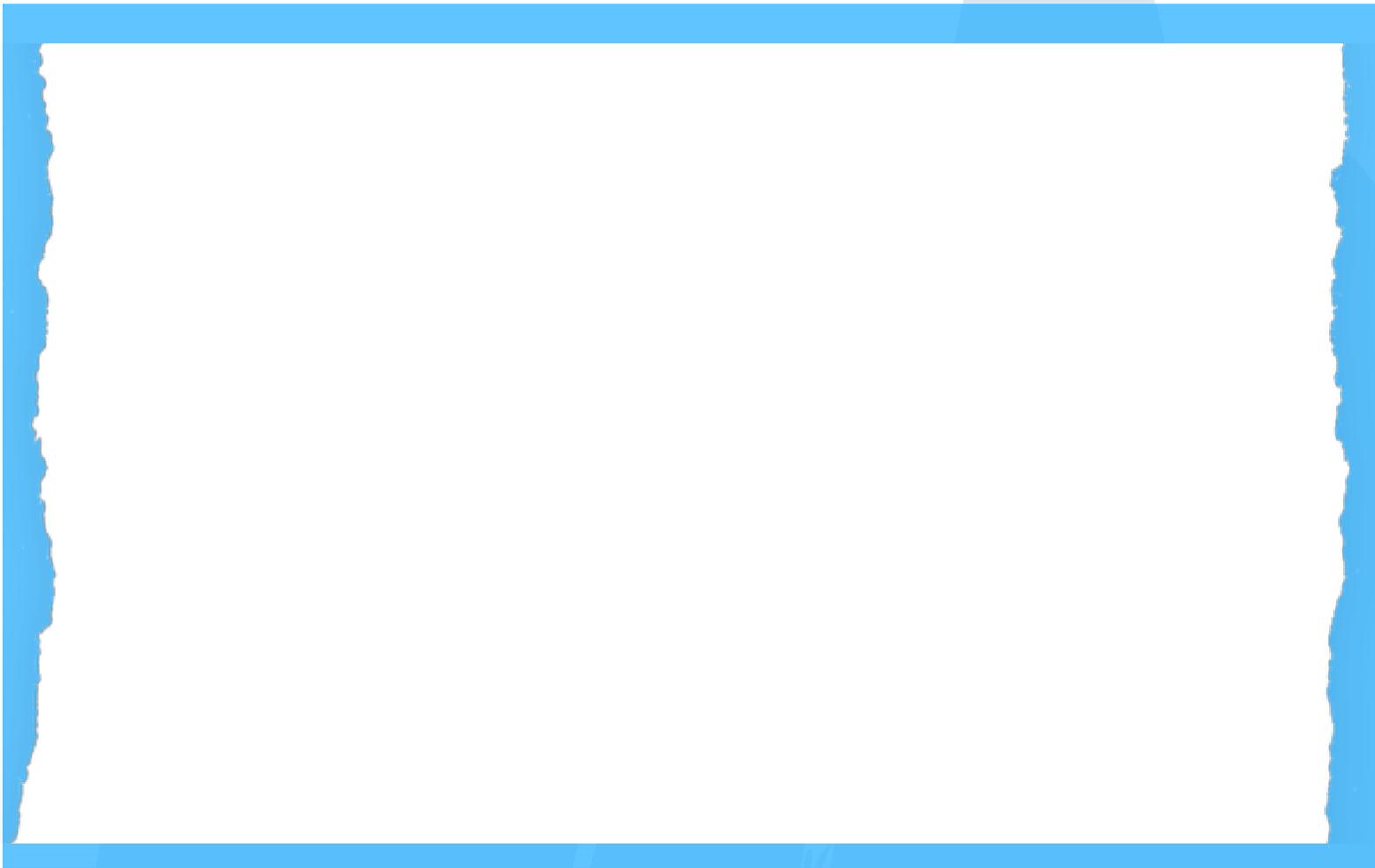


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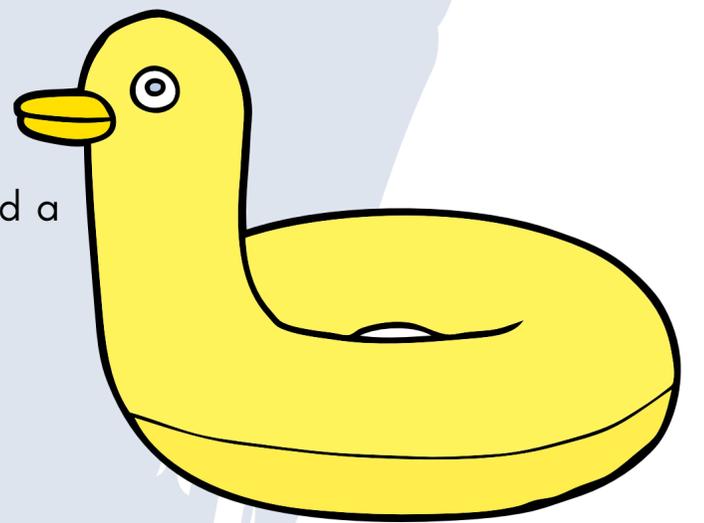
Make a plan

Draw a plan of your water slide design in the space below.
This is what you will follow when you make your model.



..... Test your ideas

Make a model of your water slide using the materials available.
Remember to include a way to get up the slide.
Once you are happy with your model test it out using water and a small figure.



Does it work?
Is there anything you need to change?

Share your ideas

Present your model water slide to the rest of the group.
Tell them if and how your model is different from your original plan and the reasons for any changes that you made.

Discuss

If you were to design and make a water slide again what would you do differently?

How could you make your model water slide even better?





Water slide

Facilitators notes

About the activity

This activity will enable children to design and build a model waterslide. As they go through the process they will learn about shape, angles, qualities of materials, weight, stability, friction and gravity.

Materials and equipment needed

Slide materials—a variety of materials that can be used to make a slide, examples are paper, card, empty boxes and bottles, cardboard tubes, tinfoil, clingfilm, plastic. It is important that there is a choice.

Sticking materials—a variety of materials to hold the slide together examples are string, glue sticks, paper clips, plasticine and sticky tape, although this should be limited to a small amount so that children can only use it to stick things together and not wrap it around their slide to reinforce it.

Minifigure – a small figure to test the slide out. If this is not available a ping pong ball or marble could be used as an alternative.

Pencil— to draw a plan.

Water to pour down the slide.

Waterproof tray or container to place the slide in when it is being tested.

Advance preparations

Gather all of the materials together so that they can be easily distributed when needed.

Have a cloth available to mop up any accidents that might happen.

Instructions

Start by reading the introductory story to the children.

Ask if any of them have been on a slide before. If so, what did it look like? Did they enjoy using it?

Now ask if anyone has been on or seen a water slide. If so, what did it look like? What did they like about it?

Read out the challenge and tell them that they are going to design and build a model water slide.

Give out the worksheets and equipment to the children.

Encourage the children to talk about how they are going to design their water slides. What shape will it be, how will they make sure it is safe to use. How will they make it look fun?

Support the children to build and test their water slides, allowing them to learn from their errors and make changes as necessary.

Encourage the children to present their slides to the rest of the group. Prompt them to talk about their choices and any problems they faced. Ask them to explain any changes they needed to make from their original plan.

Discuss with the children what they would do differently if they were to do the activity again, how could they make their waterslide even better?