

# STEAM IS FOR ME: A PERSONAL GUIDE

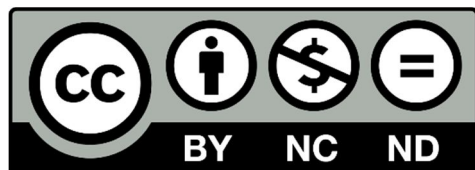
STEAM SLICK CARDS, MADE BY THOMAS MORE



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**WiweteR**  
@THOMAS MORE



DO YOU KNOW  
MORE THAN YOUR  
PARENTS?  
**FIND IT  
OUT!**



**JOULE** 



## STEAM-CARDS



These cards were developed in the context of a European project 'STEAM4U'.

In these cards you will find questions, proposals of experiments and little facts

The goal is to challenge your parents after each WiWeTeR-session to find an answer to the questions on the card of that session. Pose the questions in the car or at the dining table. Discover what your parents know about the topics.

Are you smarter than your parents?

Have a lot of discovery pleasure!



# SESSION

Ytong



You're a real expert now!  
Challenge your parents with  
the following questions!

- Why does Ytong weigh so little?
- What do you use Ytong for?
- What is the difference between a bucksaw and an edging saw?

JOULE 



## DO THE TEST

You already noticed that the paper of a newspaper is very thin.


You can easily fold it together.

But how many times can you fold a newspaper?

Take a newspaper and find out.



.....

 You will not succeed to fold the newspaper more than seven or eight times. The package of paper has become to little and to thick. After all, every time you fold a newspaper it becomes twice as small and twice as thick.



## SESSION

### Secret agent



You're a real expert now!  
Challenge your parents with  
the following questions!

- In what ways can you write a secret message for someone?
- How can you make a message, written in lemon juice, visible?

JOULE



## CODE?!?

Secret messages can be hidden in everyday topics like in a grocery list.

Try to find the hidden sentence and find out where the secret agent is located ...

Hint: look carefully to the number next to each article, it can help you to find the message!

2 pizzas  
2 bananas  
1 melon  
3 slices of cheese  
4 oranges  
13 chicken breasts  
8 bars of chocolate  
2 lemons  
1 pencil  
2 cakes  
6 flowers  
4 pants

I am in the park.



## SESSION

Code.org



You're a real expert now!  
Challenge your parents with  
the following questions!

- Which program is the base for programming in the games Minecraft or Star Wars?

JOULE



## DID YOU KNOW THAT...

- The computer only works with the digits 0 and 1. We call this the binary code. With these two digits you can write numbers and words.

For example:

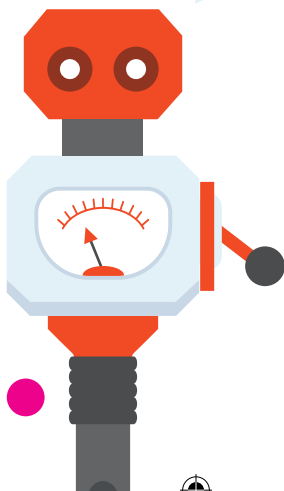
00000 = 0

00001 = 1

00010 = 2

00011 = 3

00100 = 4



## SESSION

### Bibberbot



You're a real expert now!  
Challenge your parents with  
the following questions!

- What is a bibberbot?
- What is the purpose of the crown stone?
- How can you make a bibberbot walk forward or backwards on a straight line?

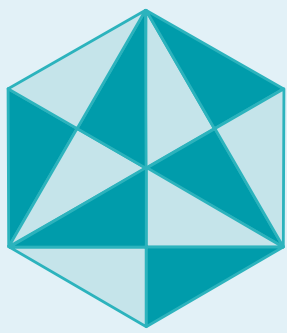
JOULE





# COUNT THE TRIANGLES

How many triangles can you find in this figure?





## SESSION

### Electromagnet



**You're a real expert now!  
Challenge your parents with  
the following questions!**

- How does a Van de Graaf generator work?
- When a car is hit by lightning you can't use your phone to get some help. Why is that?
- How can you make electricity with a magnet?



**NEWTON**

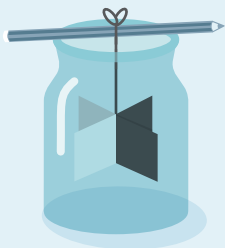


## DO THE TEST

Cut 2 white and 2 black rectangles of the same size out of cardboard.  
Stick the black rectangles to the white ones. In the middle you cut them in half.  
Slide them into each other.

On one side you tie a little wire to the cardboard and on the other side you tie it to the pencil. Hang this in a jar and place it in the sun.

Does the mill turn?  
Which side does the mill turns to?





# SESSION

## Stew



You're a real expert now!  
Challenge your parents with  
the following questions!

- How many flowerpots do you need to keep the warmth inside as good as possible?
- Where is the flowerpot the warmest? How does this work?
- How does a heatcamera work?

JOULE 



## DO THE TEST

Take a plastic bottle with a cap. Fill the bottle with hot water. Wait ten seconds.

Empty the bottle in the sink and put the cap on it as fast as possible.

Put the bottle in the freezer. Wait until you hear a little sound out of the freezer.

What happens?  
How does this work?



⚙️ The hot water in the bottle also heats the bottle. When you empty the bottle in the sink, air will enter. The air in the bottle is also hot. When in the freezer, the air cools down. Cold air shrinks and the bottle will become flatter.





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know more about  
WiWeTeR?



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