Flies Walking - How do flies walk on walls and ceilings?

Fact
- Flies have several tricky things they use to walk upside down.
- A fly’s foot has a couple of big hooks that it uses to hook into tiny little cracks and pits in the surface its walking on.
- A fly's foot also has a spongy pad on it and fly experts think it could help a fly walk upside down in three ways.
  - The pad makes a sticky stuff a bit like glue
  - The pad is covered with lots of tiny hairs that work a bit like Velcro and grab onto the surface the flies walking on
  - The pads might be able to change shape to work like suction cups.
- It also helps that a fly doesn’t weigh much and that it has six legs to grip onto the surface it’s walking on.

Do you know
- A fly’s foot might have some great devices for walking upside down, but they can also thousands of micro-organisms – germs or diseases.
- A fly is not fussy about what it will eat like a piece of fresh bread, a squashed hedgehog or a big dog poo and it walks all over whatever it lands on to eat. When a fly flies off to land on the next piece of food it takes the germs and muck from the last thing it landed on stuck to the bottom of its feet!

Experiments you can do
Experiment with the sticking glue.

What you need:
2 or three different types of glue (for example wallpaper paste, PVA and perhaps one other)
6 pieces of plastic
6 pieces of paper
6 pieces of cardboard

What you do:
Use one of the glue samples to glue together 2 pieces of plastic, 2 pieces of paper and 2 pieces of cardboard. Repeat the process with the other glues. Write down the time that you put the glue on and then write down the time when each of the glues have dried.
Try separating the pieces you have stuck together. Which ones come apart easily and which ones are completely stuck?
Would any of these glues be a good type of glue for a fly’s foot? Why or why not?
**Other Investigations**
What other insects can walk on ceilings and walls? Summer times the best time to investigate the creepy crawlies in and around your house but even in winter you might see the occasional mosquito, spider, cockroach or praying mantis. Can any of those creatures walk upside down?
What animals can walk on ceilings and walls? There’s a flying mammal that can walk upside down and a small reptile too. See if you can find out what they are.

**Jokes**
From Shae

What do you call a fly without wings? A walk

What is the sport that flies hate? Squash
From Sanjay

What has 4 wheels and flies? A garbage truck
From Amy Harvey