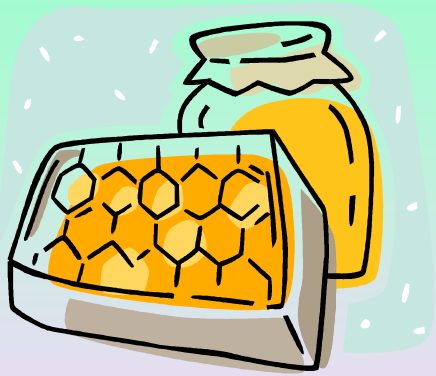
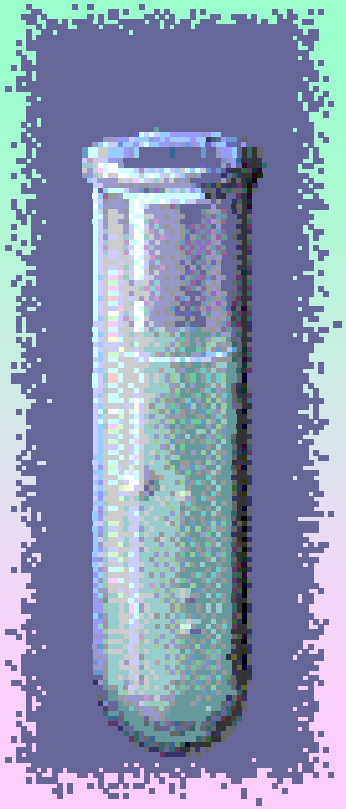
OGUN DIGICLASS

SUBJECT: BASIC SCIENCE

TOPIC: VISCOSITY





Investigating Viscosity

Objectives

- Define viscosity
- Investigate the viscosity of liquids
- Determine the viscosity level of liquids

What are the properties of these liquids?

- water
- milk
- cream
- cooking oil
- washing up liquid
- pap

Runny

Pours easily

Flows slowly

Smooth

Free

Sticky

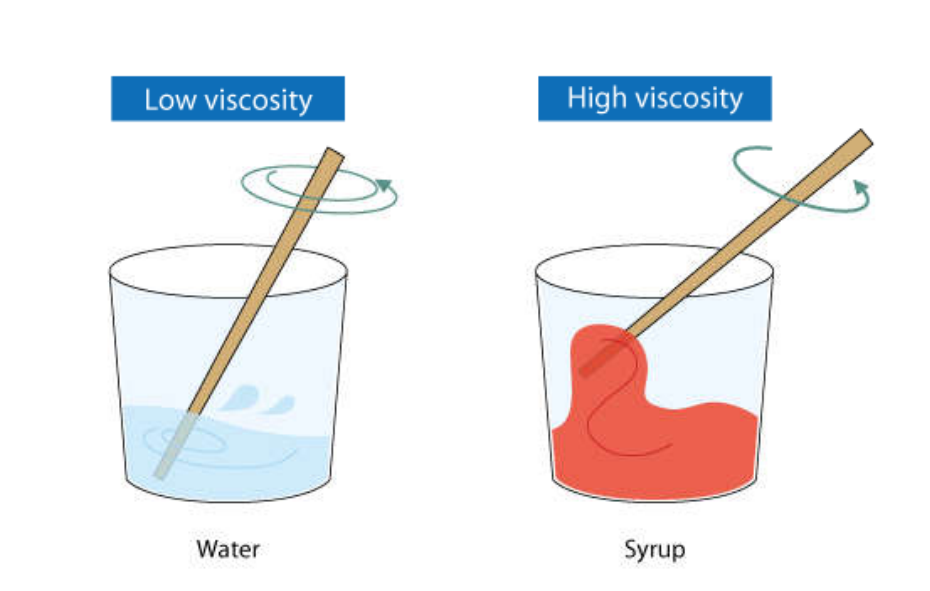
Slow

Thick

What do we mean by 'viscosity'?

Different liquids have different properties. One of these properties is *viscosity*, the liquid's resistance to flowing.

Not all liquids are the same. Some are thin and flow easily these have a low viscosity. Others are thick and gooey and have a high viscosity.



What do we mean by 'viscosity'?

At what speed can you pour the following liquids?

What affects the speed at which you can pour the different liquids?

- water
- milk
- cream
- cooking oil
- washing up liquid
- kerosene

Material	Viscosity
Water	1-5 cps
Blood	10 cps
Corn Syrup	50-100 cps
Maple Syrup	150-200 cps
Castor Oil	250-500 cps
Honey	2-3,000 cps
Molasses	5-10,000 cps
Chocolate Syrup	10-25,000 cps
Ketchup	50-70,000 cps
Peanut Butter	150-200,000 cps
Crisco/Lard	1-2,000,000 cps
Silicone Sealant	5-10,000,000 cps
Window Putty	100,000,000 cps

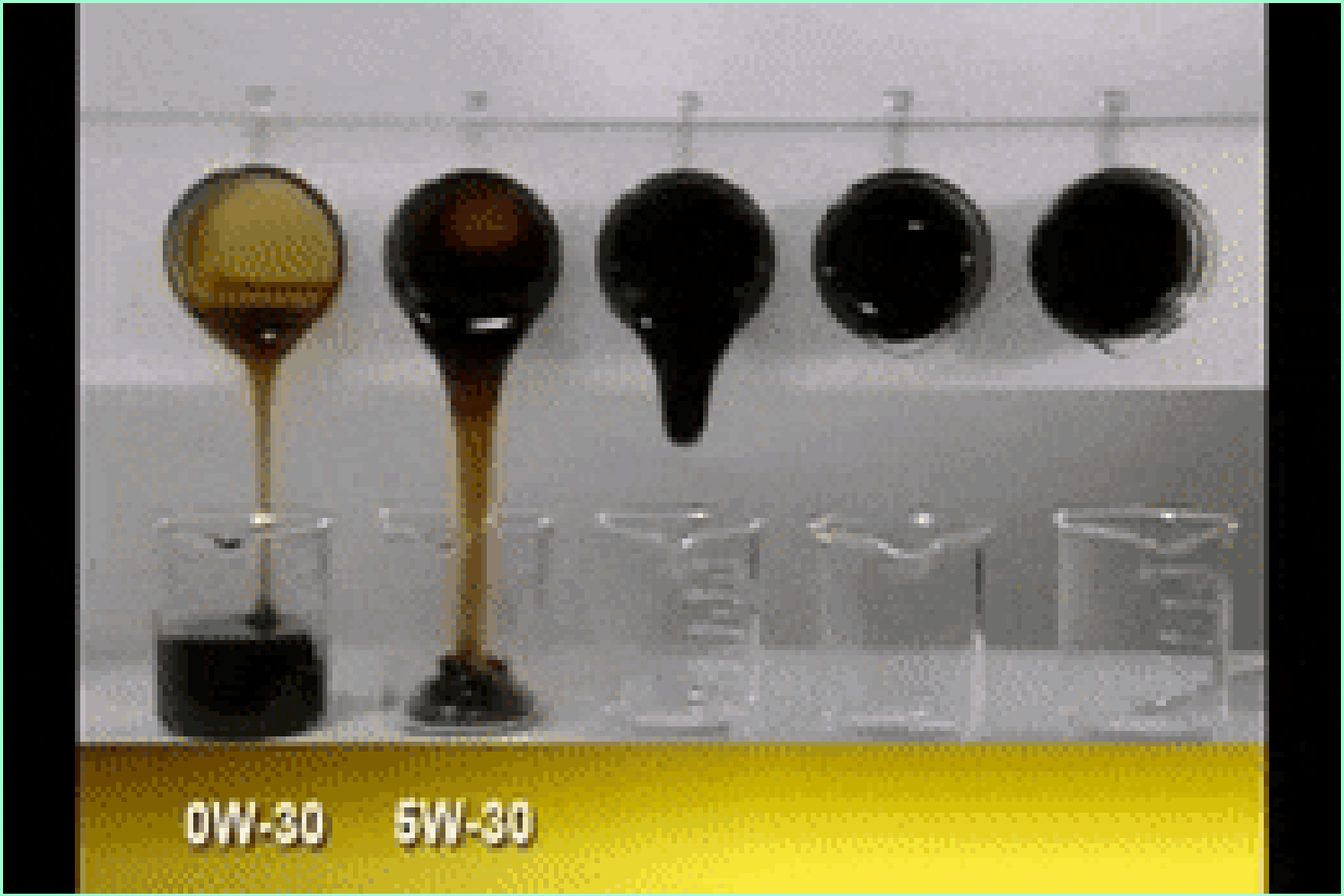
Let's Investigate…

What do we want to find out?

To determine how resistant that material is to flowing.

How will we find this out?

If a fluid can flow down a slight incline very quickly, it has a very little resistance to flow. If it takes a lot of force to move through a liquid, it has a lot of resistance to flow


0W-30
5W-30

Prediction

I predict that the least viscous liquid will be the …… because ……

I predict that the most viscous liquid will be the …… because ……

Investigating Viscosity

Materials:

- water
- milk
- cream
- cooking oil
- washing up liquid
- A slight incline
- Test tubes

Results

- High Viscosity

Low Viscosity

Conclusion

Not all liquids are the same. Some are thin and flow easily such as …… and ……These liquids have a …… . Others are thick and gooey such as …… and …… These liquids have a …… .

Further Practice

- lemonade
- fruit juice
- water
- yoghurt
- ice cream
- cooking oil
- vinegar
- washing up liquid
- golden syrup
- Kunun

we want to sort the liquids into two groups… low viscosity and high viscosity