**Vocabulary list**

|  |  |  |  |
| --- | --- | --- | --- |
| **česky** | **anglicky** | **česky** | **anglicky** |
| přidat | Add | reakce | reaction |
| míchat | Stir, mix | Konec tyčinky | Stick´s tip |
| Vložit, dát, položit | put | Tableta (celaskonu) | tablet |
| udělat | make | kapalina | liquid |
| nalít | pour | Hladina | surface |
| Řezat, stříhat | cut | Mycí prostředek | Washing-up liquid |
| čekat | wait | miska | bowl |
| bublat | bubble | Hrnek, šálek | cup |
| reagovat | react | láhev | bottle |
| Plout (nahoru) | float | talíř | plate |
| usušit | Dry | osoba | person |
| potřebovat | need | Pokus | experiment |
| vezmi | Take | postup | procedure |
| Smíchat (barvy) | blend | Čajové lžička | teaspoon |
| Rozpustit | dissolve | lžíce | spoon |
| posypat | Sprinkle | kapka | drop |
| Uklidit (věci) ze stolu | Clear the table | směs | mixture |
| Uklidit (nepořádek) | Clean (the desk) | Nemísitelné kapaliny | Immiscible liquids |
| umýt | wash | kapátko | Dropper |
| rozptýlit | disperse | párátko | Toothpick |
| namočit | dip | Barva do potravin | Food dye |
| zkoumat | explore | Mletý pepř | Ground pepper |
| Pod | underneath | Zrnka pepře | Grains of pepper |
| Stejný tlak | Equal pressure | kádinka | Glass jar |
| Směry (do stran, pod a nad) | Directions (sideways, below and above) | Povrchové napětí | Surface tension |
| Elastická kůže | Stretchy skin | hustota | density |
| způsobovat | cause | Vrstva (tenká, silná) | Layer (thin, thick) |
| Puká (praská) rychle | Snap quickly | Skvrny (kaňky) | spots |
| hustý | dense | Malé částice | Tiny particles |
| zatřep | shake | Přitažlivost | attraction |
| porovnat | compare | přilnavost | adhesion |
| Tát, rozpouštět se | melt | chuchvalec | glob |
| Způsobit rozdíl | Make a difference | významný | significant |
| Usadit se | settle | Šumivé tablety | effervescent tablets |
| vytvořit | Create | Uvolněný CO2 | released CO2 |
| Kousek toho se nakupí | A bit of it piles up | lehčí | lighter |
| táhnout | drag | hustší | denser |
| Dosáhnout bodu | Reach a point | stejné | Same |
| Už déle nedrží | no longer hold down | Jiné, rozdílné | different |
| měnit | change | Horní vrstva | Upper layer |

1. Make 6 groups. Each group will have … pupils. Count by six.
2. Group one, come here. Group 2, sit here. Group 3 – here is your place.
3. Hello, my name Michal. What is your name? Nice to meet you.
4. Did you like the experiment?
5. Now we will make the first experiment. Do you remember how to do it?
6. We need a person who will pour water. Who? Jack, You will pour water (milk, oil)
7. I will make the photos.
8. First, take the bowl (plate/ jar). Pour the water. How much? One half
9. Someone will sprinkle pepper. Who? Tom will add pepper.
10. Touch the surface with your finger (a toothpick). What happens? What can you see?
11. Now dip the stick in washing up liquid. Who wants to touch the spot now? What happens?
12. Then pour milk. How much? a half of the plate
13. Add colour. Who will add the colour? How much? A few drops. Use a dropper. Be careful
14. Who wants to add blue colour? Only a few drops.
15. Who will touch the colour spots with a clean stick? What happens?
16. Now dip the stick in washing up liquid. Who wants to touch the spots now? What happens?
17. What shall we pour in the last plate? Yes, oil. Who will do it?
18. Who will add the red colour? Blue? Yellow? What can you see? What is same and different?
19. Who will touch the spots with a clean stick? And with the dipped stick? What can you see?
20. Who will write down the results? We were watching how surface tension was broken by washing-up liquid.

EXPERIMENT 2 + 3

1. Who will pour water in the glass jar? How much? A half.
2. Who will pour oil? How much? a thick layer, about one third
3. Wait until the layers settle. What is next? Salt
4. Who will sprinkle the salt slowly? (who will measure how long the reaction last?)
5. What can you see? Why does the lighter oil go down to the bottom if the water is heavier?

Because the salt forms globs and some oil sticks to them. When the salt glob gets bigger it becomes heavy and goes to down to the bottom. Salt starts to melt in water, the glob gets lighter and the light oil takes the rest of the glob with it to the surface

1. Next, add more salt quickly. How much? one spoon. What happens? Is it different?
2. Now, add the red colour. How much. Just a little. 3 drops. Use the dropper. Be careful.
3. What happens? What can you see? What does the colour drops do in oil? they do not dissolve. Colour goes down to the bottom because there is water in the colour and it is heavier then oil. When colour gets to water layer it dissolves (mix) with water.
4. What will we see when we add more salt? Who will add the salt? Yes, there are coloured globs floating up. Why? The oil was stuck to the heavy salt glob and went down. The salt dissolve and the oil is able to go up. Some coloured water gets up with the oil.
5. I think that the reaction is over. How long did it last?
6. Now let´s do the last experiment. Who will pour water in the bottle? How much? A half
7. Now I will add oil, carefully. How much? About one third.
8. What is next? We will add a tablet which will react with water and watch carbon dioxide bubbles going through the oil.
9. We will add a colour. Who will add red colour? Use the dropper. What can you see? The colour does not mix in oil. It colours the water. Let´s add another tablet. Who wants to do it?
10. What can you see? Why the heavier bubbles of water float up? Because the density of carbon dioxide is smaller than water and oil density and the bubbles take some coloured water with them. On the surface the gas goes away and the rest of the bubble is too heavy and it goes down.
11. Now add another colour. Can you see how the colours mix in water? But they do not mix in oil. Who will add the tablet? What physical law did we observe? Density and immiscible liquids