

Volcano!- Over 2`s

A fun and simple science experiment that is sure to excite little minds!



Description:

A fun and easy science experiment to do with children of all ages, where they can take an active part in mixing the ingredients together to create a volcano! Can then be used in play with small plastic animals or dinosaurs.

Resources needed:

- Empty plastic bottle or cup
- Baking Soda
- Vinegar
- Washing-up liquid
- Red food colouring (optional) (paint works too!)
- Mud/playdough/lego (optional – but can be built up around the cup or bottle to make the volcano more realistic)

Duration: 5-10 minutes

Intent:

- Explore changes in materials as different things are added together
- Learn about the natural phenomenon of volcanos

Implementation:

Place the bottle or cup in the centre of a tray or large plate. Shape the mud, playdough or lego around the cup/bottle (if using). Put a few spoonfuls of baking soda into your container, add a few drops of washing up liquid and your food colouring or paint (if using). Pour the vinegar in the top and enjoy the volcanic eruption!

Keywords:

Pour, drop, fizz, volcano, eruption, lava, names of ingredients.

EYFS Learning outcomes:

Characteristics of Effective Learning

- Showing curiosity about objects, events and people
- Using senses to explore the world around them
- Showing particular interests
- Taking a risk, engaging in new experiences, and learning by trial and error
- Maintaining focus on their activity for a period of time
- Showing high levels of energy, fascination



- Thinking of ideas
- Planning, making decisions about how to approach a task, solve a problem and reach a goal

Communication and Language: Listening and Attention

- Single channelled attention. Can shift to a different task if attention fully obtained – using child’s name helps focus (22-36 months)
- Focusing attention – still listen or do, but can shift own attention. (30-50 months)
- Is able to follow directions (if not intently focused on own choice of activity). (30-50 months)
- Maintains attention, concentrates and sits quietly during appropriate activity. (40-60+ months)
- Two-channelled attention – can listen and do for short span. (40-60+ months)

Communication and Language: Speaking

- Learns new words very rapidly and is able to use them in communicating. (22-36 months)
- Uses a variety of questions (e.g. what, where, who). (22-36 months)
- Uses simple sentences (e.g. ‘Mummy gonna work.’) (22-36 months)
- Beginning to use more complex sentences to link thoughts (e.g. using and, because). (30-50 months)
- Uses talk to connect ideas, explain what is happening and anticipate what might happen next, recall and relive past experiences. (30-50 months)
- Builds up vocabulary that reflects the breadth of their experiences. (30-50 months)
- Extends vocabulary, especially by grouping and naming, exploring the meaning and sounds of new words. (40-60+ months)
- Uses language to imagine and recreate roles and experiences in play situations. (40-60+ months)
- Links statements and sticks to a main theme or intention. (40-60+ months)
- Uses talk to organise, sequence and clarify thinking, ideas, feelings and events. (40-60+ months)
- Introduces a storyline or narrative into their play. (40-60+ months)

Physical Development: Moving and Handling

- Shows control in holding and using jugs to pour, hammers, books and mark-making tools. (22-36 months)
- Uses one-handed tools and equipment, e.g. makes snips in paper with child scissors. (30-50 months)
- Uses simple tools to effect changes to materials. (40-60+ months)
- Handles tools, objects, construction and malleable materials safely and with increasing control. (40-60+ months)

Understanding the World: The World

- Notices detailed features of objects in their environment (22-36 months)
- Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. (30-50 months)
- Can talk about some of the things they have observed such as plants, animals, natural and found objects. (30-50 months)
- Talks about why things happen and how things work. (30-50 months)
- Developing an understanding of growth, decay and changes over time (30-50 months)
- Looks closely at similarities, differences, patterns and change. (40-60+ months)

Expressive Arts and Design: Exploring and Using Media and Materials

- Beginning to be interested in and describe the texture of things. (30-50 months)
- Realises tools can be used for a purpose (30-50 months)
- Experiments to create different textures. (40-60+ months)
- Understands that different media can be combined to create new effects. (40-60+ months)
- Manipulates materials to achieve a planned effect (40-60+ months)



- Uses simple tools and techniques competently and appropriately. (40-60+ months)
- Selects appropriate resources and adapts work where necessary. (40-60+ months)

