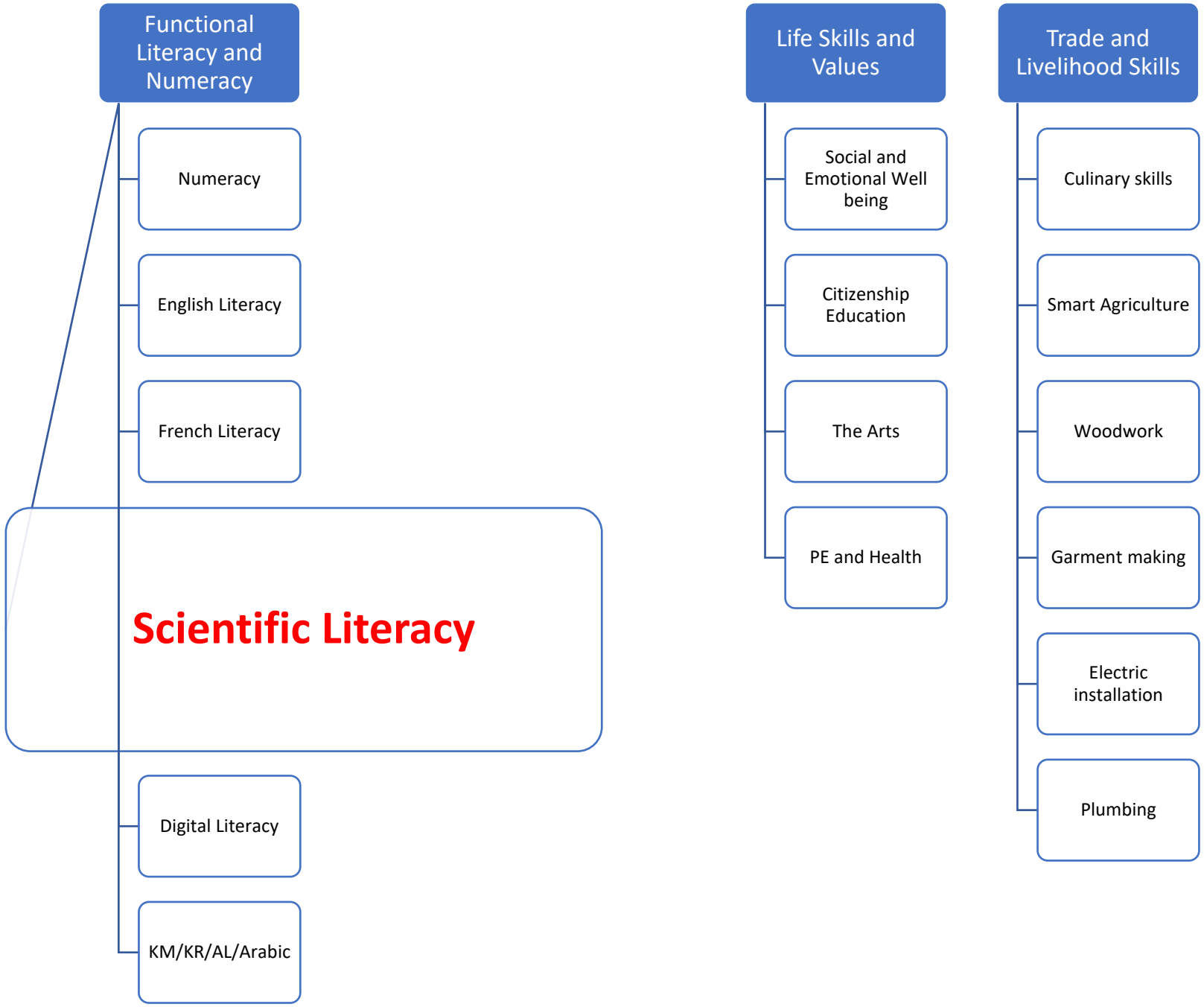
Foundational Programme in Literacy, Numeracy and Skills (FPLNS)

Scientific Literacy


Functional Literacy and Numeracy
Numeracy
English Literacy
French Literacy
Scientific Literacy
Digital Literacy
KM/KR/AL/Arabic
Life Skills and Values
Social and Emotional Well being
Citizenship Education
The Arts
PE and Health
Trade and Livelihood Skills
Culinary skills
Smart Agriculture
Woodwork
Garment making
Electric installation
Plumbing

New pedagogical approach to achieve basic scientific literacy

- Competency-based approach
- Thematic approach
- Conceptual Learning – sense making
- Student-centred
- Activity-based, Hands-on, gamification, project-based, experiential learning
- Attainment of competencies

Science Literacy Skills

Through grades 7 to 9, pupils are required to:

understand **basic** scientific concepts in their own life
and in their environment.

This can be achieved through the following competencies:

Competencies to be developed:

1. Follow instructions and adopt safe practices to apply them in daily life situations

2. Develop understanding of science vocabulary and use these in everyday life contexts

3. Develop process skills and lasting adroitness through practical fair tests and simple hypothesis testing

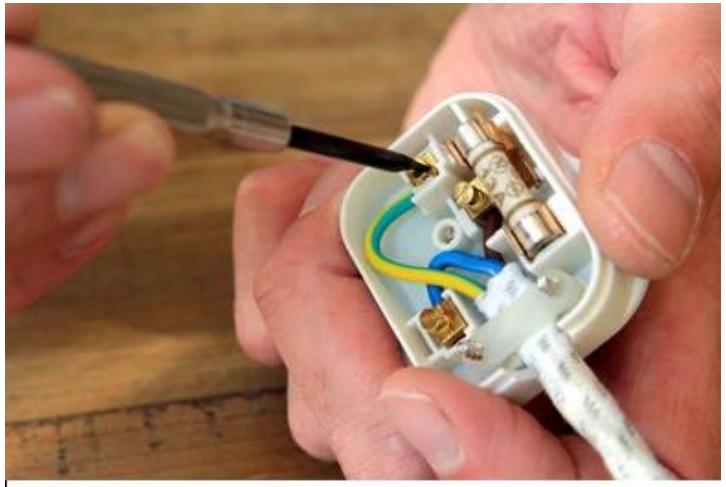
4. Apply simple measurement techniques to understand quantitative aspects of phenomena in daily life

5. Integrate elements of sustainability in all activities to protect the environment and the planet Earth

<u>Follow instructions</u> and adopt **<u>safe practices</u>** to apply them in daily life situations

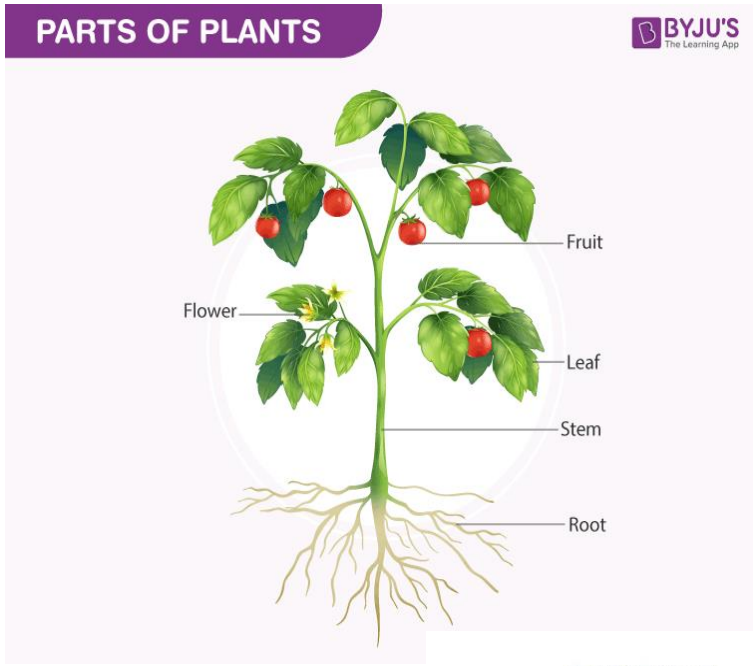
Examples:

- preparing milk for babies,
- user guide for a smartphone,
- preparing insecticide for spraying,
- safe use of electricity, medicines,
- Setting a water pump, Wi-Fi, …

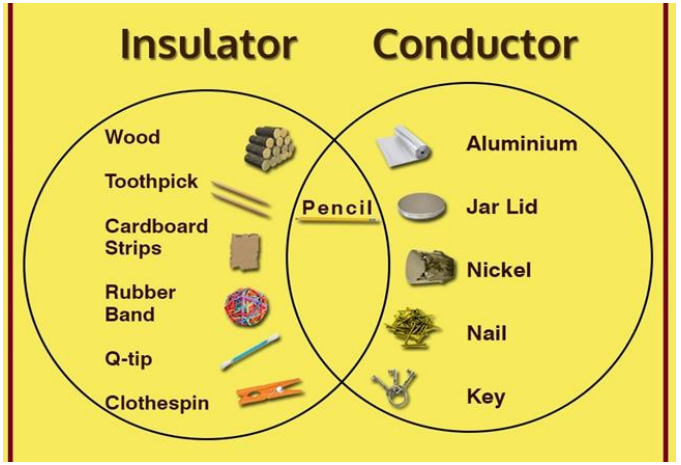


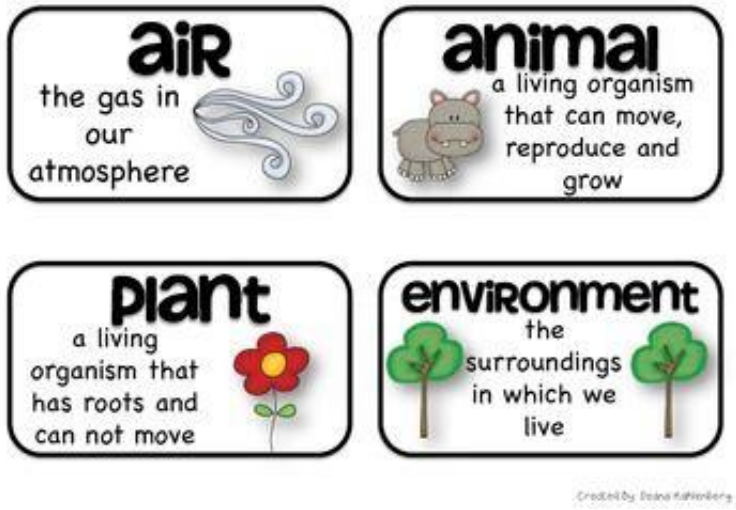
Develop understanding of **science vocabulary** and use these in everyday life contexts

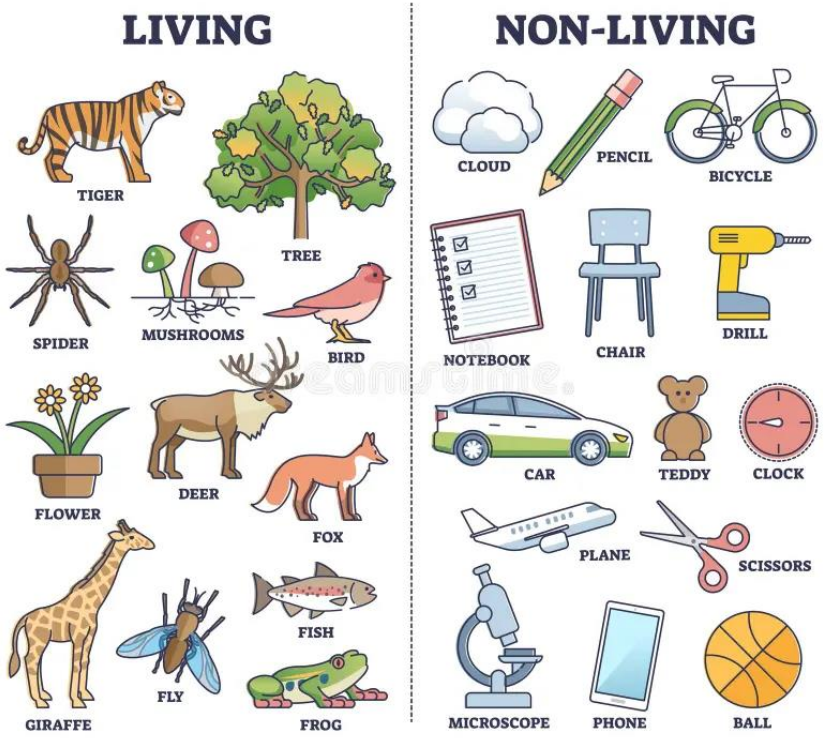
- plants, leaves, roots,
- living/non-living,
- temperature,
- detergent, salt,
- energy, voltage, switch, plug,
- wood, glass, plastic, …



Temperature

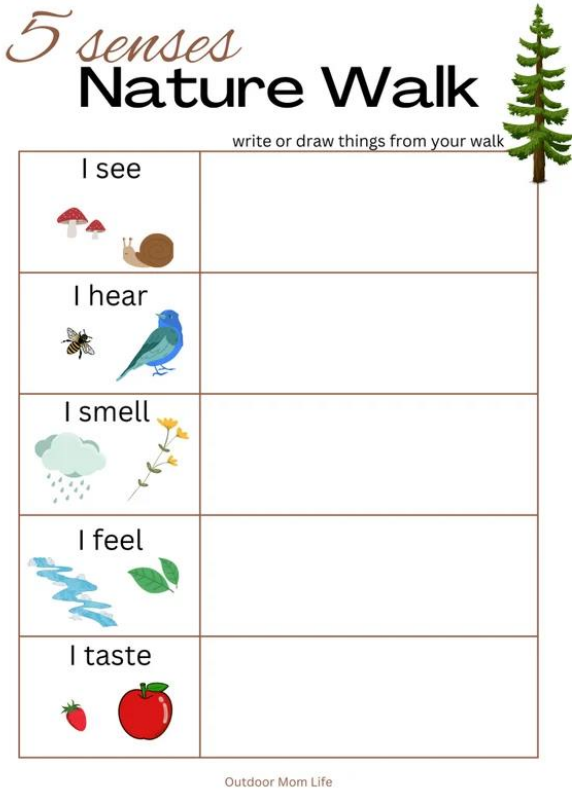


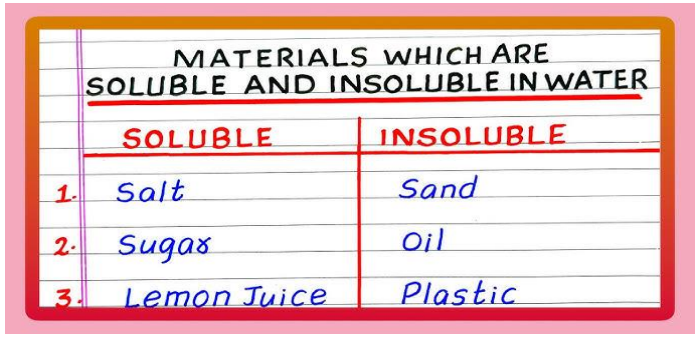




Develop **process skills** and lasting adroitness through practical fair tests and simple **hypothesis testing**

- observe using 5 senses: ourself, our surrounding,
- E.g., avoiding accidents by observing,
- communicate by various means: oral, written, drawing, role play,
- measure mass, volume, temperature,
- compare soluble/insoluble materials,
- classify flowering / non-flowering plants





Apply simple **<u>measurement techniques</u>** to understand quantitative aspects of phenomena in daily life

- cooking: mass, volume, temperature;
- fever, inflammation,
- travel bag,
- trade such as selling vegetables, meat, liquid milk, …

Integrate elements of **sustainability** in all activities to protect the environment and the planet Earth

- Judicious use of water: domestic, at school,
- Judicious use of detergents,
- Waste management,
- Growing crops: water, fertilizer, pesticide, harvesting, storing, preserving, food wastage
- Care for the environment and the Earth (plants, animals, land, water, air, noise, social)

Activities related to the theme "Weather"

Weather parameters are humidity in air, temperature of air, air (atmospheric) pressure, wind direction, wind speed etc.

Thus, a basic understanding of air is a must.

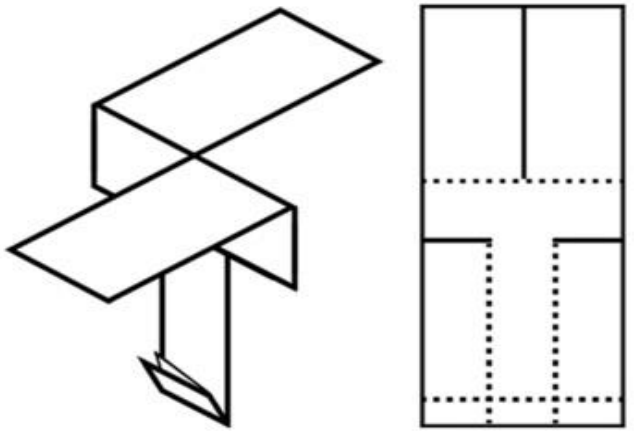
Practical activities related to air will be conducted and then the elements of basic science elicited from these activities.

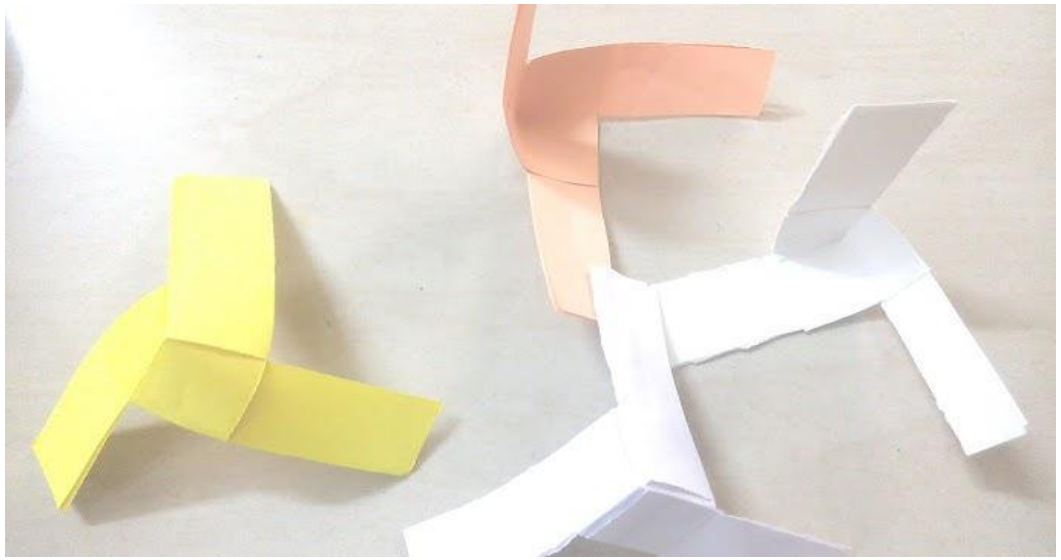
One such activity is the making and testing of paper fans / propellers.

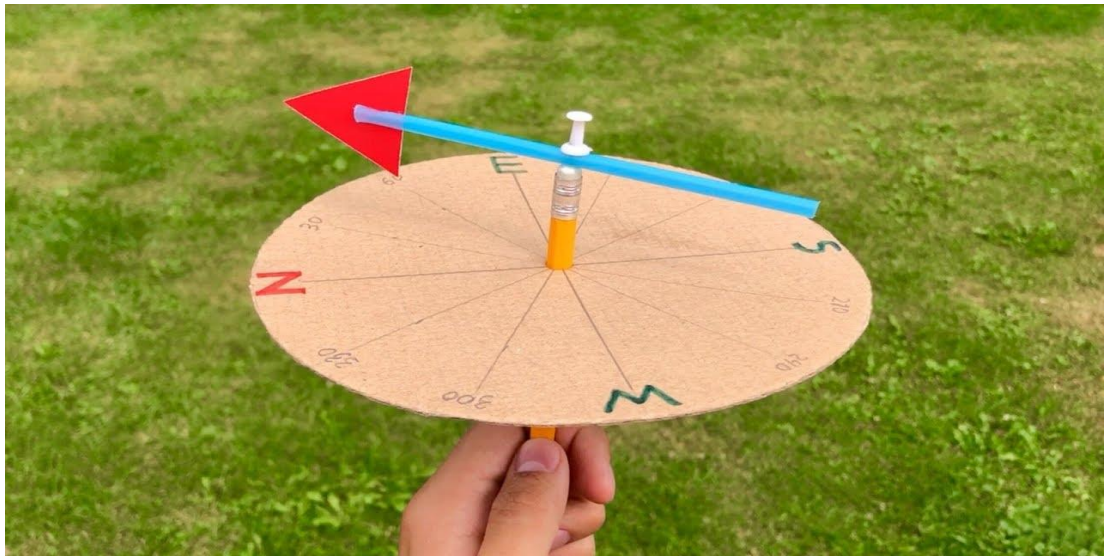
Then extending these ideas to the making of **wind vanes** and **anemometers** used to observe the weather.

Higher order activities can be undertaken to make pupils design more robust, those which work better, extend their ideas to the making of other artefacts.

PAPER HELICOPTER

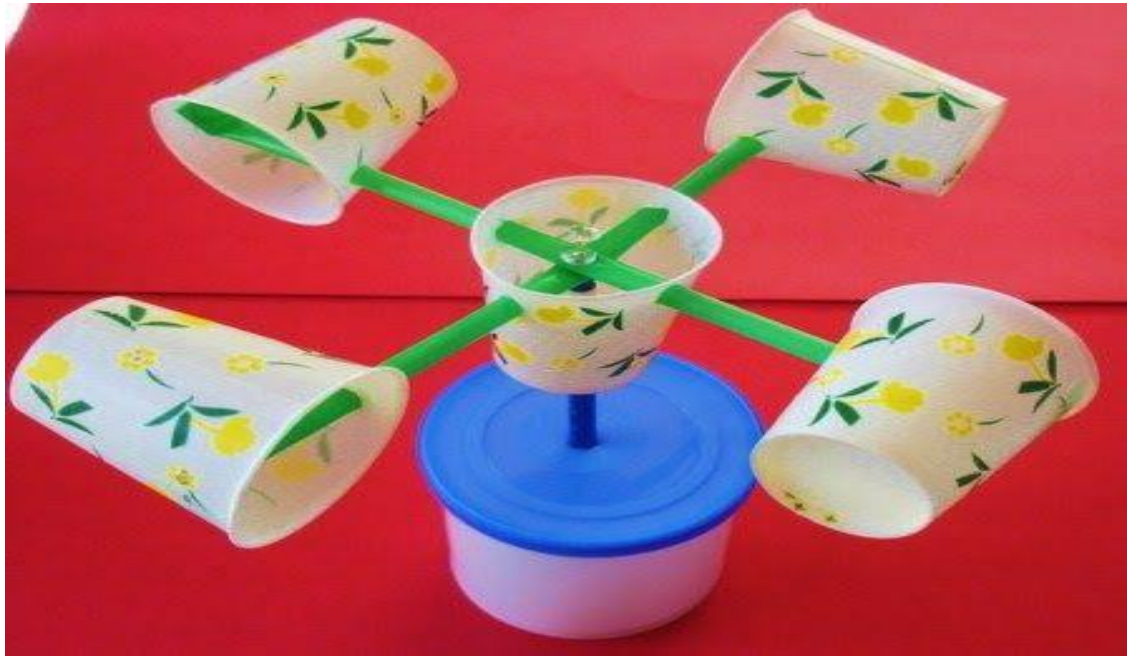






Windvane

Cardboard / carton
Straw
Paper
Pencil / wooden rod
Pin / thumb tack



Anemometer

Paper cups
Wooden rods
Masking tape
Plastic container
Cardboard / carton

Thank you