

## FIRST AND SECOND CLASSES – HEAT

**Teacher Guidelines:** p 129

**Linkage:**

- o Living Things: Myself - using senses
- o Materials and change - Heating and cooling – different kinds of clothes for variations in temperature
- o Properties and characteristics of materials – materials that keep us warm

**Integration:**

- o Geography: Natural Environments – Weather
- o Oral Language Development – English and Gaeilge
- o History: Myself and my family – *sources of heat in the past*
- o Visual Arts
- o SPHE
- o Maths – Representing and interpreting data
- o Visual arts - Fabric and fibre – creating in fabric and fibre

## FIRST AND SECOND CLASSES – HEAT

### Content Objective:

#### **BECOME AWARE OF DIFFERENT SOURCES OF HEAT ENERGY**

*Sun, fire, radiator*

### Some suggested activities:

1. Discuss with children:
  - what heat sources they have in school, (radiator, lights)
  - the heat sources they might have at home (hair-dryer, fire, candle, oven, radiator, electric heater).
  - Draw or list pupils' suggestions.
  - Rank objects in order of the amount of heat they give out.
  - What keeps the earth warm – the sun?
2. If possible could children visit the boiler house
  - what temperature is the water as it leaves the boiler,
  - will it return the same temperature?
  - Can you follow the line of the pipes as they leave the boiler house?

### Some suggested investigations:

### Some suggested designing and making:

## FIRST AND SECOND CLASSES – HEAT

### Content Objective:

**LEARN THAT TEMPERATURE IS A MEASURE OF HOW HOT SOMETHING IS**

### Some suggested activities:

1. Discuss temperature: weather, body, materials.
  - How do you know if something is hot /cold?
  - Children put hands in cold water, lukewarm water and warm water.
  - Then they repeat the exercise.
  - Is it difficult to tell one from the other.
  - Need established for a standard measure – the thermometer.
2. Look at a thermometer (a variety of thermometer types could be used)
  - Have they ever seen a thermometer?
  - Where?
  - What is a thermometer used for?
  - Discuss with children who they have seen using a thermometer
3. Investigate with children what happens to the temperature on the thermometer if:
  - one child blows gently on it 20 times
  - someone holds the base of the thermometer in your hands for a few minutes

### Some suggested Investigations:

1. What is hotter or colder than me?
  - Warm water, sand, cotton wool, ice cubes.
  - Predict and then measure using a thermometer.
  - Compare and discuss results.

### Some suggested designing and making:

## FIRST AND SECOND CLASSES – HEAT

### Content Objective:

### MEASURE AND COMPARE TEMPERATURES IN DIFFERENT PLACES IN THE CLASSROOM, SCHOOL AND ENVIRONMENT

### Some suggested activities:

See below

### Some suggested investigations:

1. Comparing temperature:
  - How warm is the classroom?
  - Do you think it is warmer outside or inside?
  - Can you think of a place in the school which is colder/hotter than the classroom?
  - What are the warmest/coldest places in the school?
  - Does the temperature in a particular location change during the day? Record changes and suggest reasons for the change in temperature.
  - Where in our classroom will a chocolate button melt the fastest – the teacher's chair, beside the shaded window, in a press, beside the sunny window?
  - Who can make their ice cube last the longest?
  - How could you make a chocolate button melt the fastest in your hand?
  - Record temperature over a period of a week.
  - Refer to fair testing (time/place/type of thermometer)

### Some suggested designing and making:

- An outfit for teddy on his summer holidays
- An outfit for teddy to wear in the snow

