

# Syllabus Breakdown

SCIENCE GRADE 6

AIR FOUNDATION SCHOOL SYSTEM

ISLAMABAD | PAKISTAN



## Teaching weeks per annum

For the regions where academic session begins in **April**

### FIRST TERM: APRIL – SEPTEMBER

#### Expected Teaching Weeks

<b>April</b>	Teaching Week 1	Teaching Week 2	Teaching Week 3	Teaching Week 4
<b>May</b>	Teaching Week 5	Teaching Week 6	Teaching Week 7	<b>First Midterm Examination</b>
<b>June</b>	<i>Summer Vacation</i>	<i>Summer Vacation</i>	<i>Summer Vacation</i>	<i>Summer Vacation</i>
<b>July</b>	<i>Summer Vacation</i>	<i>Summer Vacation</i>	<i>Summer Vacation</i>	<i>Summer Vacation</i>
<b>August</b>	Teaching Week 8	Teaching Week 9	Teaching Week 10	Teaching Week 11
<b>September</b>	Teaching Week 12	Teaching Week 13	<b>Midterm Examination</b>	<b>Mid Term Examination</b>

### SECOND TERM: OCTOBER – MARCH

#### Expected Teaching Weeks

<b>October</b>	Teaching Week 14	Teaching Week 15	Teaching Week 16	Teaching Week 17
<b>November</b>	Teaching Week 18	Teaching Week 19	Teaching Week 20	Teaching Week 21
<b>December</b>	Teaching Week 22	<b>Second Midterm Examination</b>	<i>Winter Vacation</i>	<i>Winter Vacation</i>
<b>January</b>	Teaching Week 23	Teaching Week 24	Teaching Week 25	Teaching Week 26
<b>February</b>	Teaching Week 27	Teaching Week 28	Teaching Week 29	Teaching Week 30
<b>March</b>	<i>Revision Work</i>	<b>Annual Examination</b>	<b>Annual Examination</b>	<i>PTM &amp; Annual Day</i>



## Teaching weeks per annum

For the regions where academic session begins in **August**

### FIRST TERM: AUGUST – DECEMBER

Expected Teaching Weeks

<b>August</b>	Teaching Week 1	Teaching Week 2	Teaching Week 3	Teaching Week 4
<b>September</b>	Teaching Week 5	Teaching Week 6	Teaching Week 7	<b>First Midterm Examination</b>
<b>October</b>	Teaching Week 8	Teaching Week 9	Teaching Week 10	Teaching Week 11
<b>November</b>	Teaching Week 12	Teaching Week 13	Teaching Week 14	Teaching Week 15
<b>December</b>	<b>Midterm Examination</b>	<b>Midterm Examination</b>	<i>Winter Vacation</i>	<i>Winter Vacation</i>

### SECOND TERM: OCTOBER – MARCH

Expected Teaching Weeks

<b>January</b>	Teaching Week 16	Teaching Week 17	Teaching Week 18	Teaching Week 19
<b>February</b>	Teaching Week 20	Teaching Week 21	Teaching Week 22	<b>Second Midterm Exam</b>
<b>March</b>	Teaching Week 23	Teaching Week 24	Teaching Week 25	Teaching Week 26
<b>April</b>	Teaching Week 27	Teaching Week 28	Teaching Week 29	Teaching Week 30
<b>May</b>	<i>Revision Work</i>	<b>Annual Examination</b>	<b>Annual Examination</b>	<i>PTM &amp; Annual Day</i>



## Allocation of periods

Subjects and period distribution for preparing timetable, syllabus breakdown, lesson plans etc.

SN	SUBJECT	JUNIOR			PRIMARY		SECONDARY			EACH SUBJECT PER ANNUM
		GRADE – 1	GRADE – 2	GRADE – 3	GRADE – 4	GRADE – 5	GRADE – 6	GRADE – 7	GRADE – 8	
1	English Language	5	5	5	5	5	5	5	5	150
2	Urdu Language	5	5	5	5	5	5	5	5	
3	Mathematics	5	5	5	5	5	5	5	5	
4	Science	-	-	-	5	5	5	5	5	
5	General Knowledge	5	5	5	-	-	-	-	-	
6	Sindhi Language <sup>1</sup>	4	4	4	4	4	4	4	4	120
7	Social Studies	-	-	-	4	4	-	-	-	
8	Islamiyat	4	4	4	4	4	4	4	4	
9	Nazra-e-Quran <sup>2</sup>	4	4	4	4	4	4	4	4	
10	Geography	-	-	-	-	-	3	3	3	90
11	Computer Science	3 SRM <sup>3</sup>	3 SRM	3 SRM	3 SRM	3 SRM	3	3	3	
12	Life Skills	3 SRM	3 SRM	3 SRM	-	-	-	-	-	
13	Artwork	3 SRM	3 SRM	3 SRM	-	-	-	-	-	
14	History	-	-	-	-	-	2	2	2	60
15	Life Skills & Art	-	-	-	2 SRM	2 SRM	-	-	-	
		-	-	-	-	-	1 SRM	1 SRM	1 SRM	30
PERIODS PER WEEK		<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	

<sup>1</sup> In Sindh Region only

<sup>2</sup> In all regions except Sindh

<sup>3</sup> SRM: (Supplementary Reading Material)



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
1 /30		Being Scientific. Basic steps of scientific investigation page: 2-3 Concept Check		
		Testing your observation, Inference, Concept Check, page: 4-5		
	1.	Predictions, Proposing a hypothesis, Carrying out experiments and recording results. page: 6-7		
	2.	Analyzing the result and drawing a conclusion, carrying out a scientific investigation page:7		
	3.	Analyzing the result and drawing a conclusion, carrying out a scientific investigation page:7		

## NOTES



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
2 /30	4.	CHAPTER 1, CELLULAR ORGANIZATION. Reading and Explanation, Cells, Optical Microscope, Observing cells under Microscope. page: 10-11 Concept Check		
	5.	Structure of plant and Animal Cells. page: 12-13		
	6.	Specialized Cells and plant cells. page: 14-15		
	7.	Animal tissue and Plant tissue, Organs/Human Organs. pg. 16-17		
	8.	Differences between tissues and Organs, The main Organs of a flowering plant, Cellular Hierarchy, Plant cell hierarchy pg. 16-18		

## NOTES



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
3 /30	9.	Exercises: (Q 1 to 4) page: 20-21		
	10.	Exercises: (Q 5) page: 21		
	11.	Exercises: (Q 6 & 7) page: 21		
	12.	Activities page: 21-22		
	13.	Projects page: 22		

## NOTES

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
4 /30	14.	CHAPTER 2, Reproduction in Plants. Reading and Explanation page: 23-24		
	15.	Pollination, Insect-pollinated flowers to Fertilization page: 25-26		
	16.	Fruit Formation page: 27-28		
	17.	Asexual Reproduction & Natural Asexual Reproduction page: 28-30		
	18.	Artificial Asexual Reproduction page: 31-33		

## NOTES





WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
5 /30	19.	Exercises: (Q 1 to 3) page: 34-35		
	20.	Exercises: (Q 4) page: 35		
	21.	Exercises: (Q 5) page: 35		
	22.	Exercises: (Q 5 & 6) page: 35-36		
	23.	Activities: page: 36		

## NOTES

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
6 /30	24.	Projects: Test Yourself (CHAPTER 1 &2) page: 36 page: 59-61		
	25.	CHAPTER 5: Matter as Particles. Page: 66-67		
	26.	Matter as Particles. Page: 68-69		
	27.	Particle theory of matter page: 69-70		
	28.	Heat can change the state of matter page: 70-72		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
7 /30	29.	Heat can change the state of matter page: 72-74		
	30.	Exercises: (Q 1 to 3) page: 75		
	31.	Exercises: (Q 4 &5) page: 75-76		
	32.	Exercises: (Q 6) page: 76		
	33.	Exercises: (Q 7 & Activities) page: 76		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
8 /30	34.	Projects page: 48		
	35.	CHAPTER 6: Elements and Compounds page: 77-78		
	36.	Metal and Non-Matels to Concept Check page: 78-79		
	37.	Using Elements to Combining Elements page: 80-81		
	38.	Molecules, Compounds page: 81-83		

## NOTES

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
9 /30	39.	Exercises: (Q 1 to 3) page: 84		
	40.	Exercises: (Q 4 & 5) page: 85		
	41.	Exercises: (Q 6) page: 85		
	42.	Exercises: (Q 6) page: 85		
	43.	Activities page: 85		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
10/30	44.	Projects page: 85		
	45.	Test Yourself (Chapter 5) page: 98-99		
	46.	Test Yourself (Chapter 6) page: 99-100		
	47.	CHAPTER 8: Energy Forms of Energy page: 103-104		
	48.	Forms of Energy page: 105-106		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
11/30	49.	Energy Transformation page: 106-107		
	50.	Sources of Energy page: 108-109		
	51.	Non-Renewable Energy Resources page: 109-110		
	52.	Non-Renewable Energy Resources page: 111-112		
	53.	Exercises: (Q 1 to 2) page: 113		

**NOTES**



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
12/30	54.	Exercises: (Q 3) page: 114		
	55.	Exercises: (Q 4) page: 114		
	56.	Activities: page: 114		
	57.	Projects page: 115		
	58.	Projects page: 115		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
13/30	59.	CHAPTER 09: Electricity Static Electricity to Electric Circuit page: 116-117		
	60.	Circuit Diagram to Open and close Circuit page: 117-119		
	61.	Parallel Circuit page: 120-121		
	62.	Factors that affect the brightness of bulbs or speed of motors Page: 121-123		
	63.	Factors that affect the brightness of bulbs or speed of motors Page: 121-123		

**NOTES**



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
14/30	64.	Exercises: (Q 1 to 3) page: 124-125		
	65.	Exercises: (Q 4) page: 125		
	66.	Exercises: (Q 5) page: 125		
	67.	Exercises: (Q 6) page: 125		
	68.	Activities page: 126		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
15/30	69.	Activities page: 126		
	70.	Projects page: 126-127		
	71.	Projects page: 126-127		
	72.	Test Yourself (CHAPTER 9) page: 162-163		
	73.	Test Yourself (CHAPTER 10) page: 163-164		

**NOTES**



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
16/30	74.	BIOLOGY: CHAPTER 3: Balanced Diet, Nutrients (Carbohydrates, Proteins) Page: 37-39		
	75.	Nutrients (Carbohydrates, Proteins) Page: 37-39		
	76.	Fats & Oil, Vitamins                      page: 39-41		
	77.	Minerals, Fibre, Water                      page: 41-43		
	78.	“Balanced diet is different for everyone” to “Balanced diet and fitness Concept Map” page: 43-45		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
17/30	79.	Exercises: (Q 1 to 4) page: 46-47		
	80.	Exercises: (Q 5) page: 47		
	81.	Exercises: (Q 6) page: 47		
	82.	Exercises: (Q 7 & 8) page: 47		
	83.	Activities page: 47-48		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
18/30	84.	Projects page: 48		
	85.	Biology :CHPATER 4: The Digestive System Digestion, The Digestive system ( mouth, Gullet ) page: 49-50		
	86.	The Digestive system (Stomach to Enzymes) page: 51-52		
	87.	The Digestive system (Stomach to Pancreas, ) page: 51-53		
	88.	Problem with digestive system page: 53-55		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
19/30	89.	Exercises: (Q 1 to 3)                      page: 56		
	90.	Exercises: (Q 3 & 4)                      page: 56-57		
	91.	Exercises: (Q 5)                      page: 57		
	92.	Exercises: (Q 5 & 6)                      page: 57		
	93.	Activities                      page: 58		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
20/30	94.	Projects page: 58		
	95.	Test Yourself (CHAPTER 3) Page: 61-63		
	96.	Test Yourself (CHAPTER 4) Page: 63-64		
	97.	CHEMISTRY: CHAPTER 7: Mixtures Page: 86-87 Mixture and Types of Mixtures, Difference between elements, compounds and mixtures, Concept Check page: 86-88		
	98.	Composition of Air, Pure Substances and mixtures page: 88-89		

## NOTES





WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
21/30	99.	Separating Mixtures page: 90-91		
	100.	Separating Mixtures, Paper chromatography, Concept check page: 91-92		
	101.	Water the Universal Solvent Page: 93-94		
	102.	Exercises: (Q 1 to 3) page: 95-96		
	103.	Exercises: (Q 4) page: 96		

## NOTES



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
22/30	104.	Exercises: (Q 5 & 6) page: 96-97		
	105.	Activities page: 97		
	106.	Projects: page: 97		
	107.	Test Yourself (CHAPTER 7, Mixtures) page: 101		
	108.	PHYSICS: CHAPTER 10: Magnetism A Magnet and Types of Magnet page: 128-129		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
23/30	109.	Making a Magnet and Magnetic Field, Compass, The Earth has a magnetic field Electric current has a magnetic field ) page: 130-131		
	110.	How can a magnet be demagnetized? To uses of Electromagnets page: 131-133		
	111.	Exercises: (Q 1 to 2) page: 134-135		
	112.	Exercises: (Q 3) page: 135		
	113.	Exercises: (Q 4) page: 135		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
24/30	114.	Exercises: (Q 5 & Activities) page: 135-136		
	115.	Activities page: 136		
	116.	Projects page: 136		
	117.	CHAPTER 11: Solar System (Planets of Our Solar System) Page: 137-139		
	118.	CHAPTER 11: Solar System (Planets of Our Solar System) Page: 137-139		

**NOTES**



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
25/30	119.	Satellite, The Earth's natural satellite, The Moon, page: 139-140		
	120.	Asteroids, Meteoroids                      page: 141-142		
	121.	Comets to Artificial Satellite              page: 142-144		
	122.	Comets to Artificial Satellite              page: 145-147		
	123.	Comets to Artificial Satellite              page: 145-147		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
26/30	124.	Exercises: (Q 1 to 2) page: 148		
	125.	Exercises: (Q 3) page: 148		
	126.	Exercises: (Q 4 & Activities) page: 149		
	127.	Activities page: 149		
	128.	Projects page: 47-48		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
27/30	129.	CHAPTER 12: Technology in Everyday Life. (Experiment 1) page: 150-152		
	130.	CHAPTER 12: Technology in Everyday Life. (Experiment 1) page: 150-152		
	131.	(Experiment 2) page: 152-154		
	132.	(Experiment 2) page: 152-154		
	133.	Benefits of Micro-organisms (Experiment 1) page: 154-155		

**NOTES**



WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
28/30	134.	Benefits of Micro-organisms (Experiment 2)      page: 155-156		
	135.	Converting Solar energy to the Heat Energy      page: 156-157		
	136.	How to design an Electric bell?      page: 158-159		
	137.	How to design an Electric bell?      page: 158-159		
	138.	Test Yourself (CHAPTER 10)      page: 163-164		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
29/30	139.	Test Yourself (CHAPTER 11) Page: 164-165		
	140.	Test Yourself (CHAPTER 12) Page: 166		
	141.	Assessment		
	142.	Assessment		
	143.	Assessment		

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WEEK	[150]	UNIT & TOPIC CONTENT INCLUDING PAGE NUMBER	SIGN CR/CT	DATE
30/30	144.	Assessment		
	145.	Assessment		
	146.	Assessment		
	147.	Assessment		
	148.	Assessment		

## NOTES

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