BIRLA SCHOOL, PILANI

Summer Vacation Home assignment (SVHA) session 2025-26 for class 11 (Science)

ENGLISH	**Instructions:** 1. Choose a Topic: Select one of the two topics: - The Role of Grandparents in Shaping Family Values - Friendship in the Digital Age: Challenges and Opportunities 2. Create a Questionnaire: Design a survey with at least 15 questions using MS Forms or Google Forms. Conduct the survey and collect responses. 3. Analyze Results: Write a short paragraph (around 100-150 words) analyzing the survey results, highlighting key findings and trends. 4. Anecdote/Real-Life Story: Share a brief anecdote or real-life story related to the topic (around 100 words). 5. Compile the Project: Include: - A printout of the questionnaire - Survey results (summary or screenshots) - Analysis paragraph - Anecdote/real-life story Submission Guidelines: - Compile all components in a single file (hard copy) - Ensure the questionnaire and survey results are clearly presented - Submit the project on 1st July 2025. Assessment Criteria: - Depth and relevance of questionnaire (30%) - Analysis and insights from survey results (25%) - Clarity and coherence of writing (20%) - Relevance and impact of anecdote/real-life story (15%) - Overall presentation and submission (10%)
PHYSICS	1.Write 20 - dimensional formula on the chart paper on chart paper. 2.Life history and his contribution in Science of Physicist on Chart paper. 3.Working model of Physics.
CHEMISTRY	1.Collect water samples from different sources (tap, pond, bottled) and Research sample by using home tests (like pH, hardness using soap test, TDS using TDS meter if available). 2. Create a report or PPT on "Green Chemistry in Modern Industry." Highlight 2-3 industrial processes that have become more eco-friendly. Suggest how technology helps to reduce pollution. 3. Learn Elements from atomic number 1 to atomic number 54 from modern periodic table.
MATHEMATICS	1. Solve 20 extra questions from each chapter 1 and 2 2. Design at least 3 case study questions from chapters 1 and 2 each and solve them (2 questions from each chapter) 3. Solve all solved examples of chapter 1 and chapter 2. Complete this homework assignment in separate notebook
BIOLOGY	**Theme: Explore, Observe, Create, Connect** **1. Plant Diary (Biology + Art + Language + Environment)** Choose 5 plants around your home. For each, record: Common & Scientific Name, Classification (Family, Monocot/Dicot), Type (Herb/Shrub/etc.), Leaf Venation & Arrangement, Root Type, Flower Type, Environmental Role, Creative Expression (poem/quote), and a photo or sketch.

	2. **Climate and Crop Map (Biology + Geography)** Mark 5 states on a map of India. For each, mention: one major crop, climate & soil type. Explain how climate affects the crop's biology. **3. Medicinal Plants and Ayurveda Chart (Biology + History)** Select 5 Indian medicinal plants. Create a table with: Botanical & Common Name, Traditional Use (Ayurveda/folk), and Modern Use (pharma/medicine). **4. Nature Photography Album (Biology + Art + Photography)** Capture 10 original nature photos (e.g., plants, insects, birds). For each, include Scientific Name (if known), Habitat, and 1–2 interesting facts.
BIOTECHNOLOGY	1. Prepare a chart on any topic of Biology /Biotechnology. 2. Collect information about the latest development in Biotechnology. Submit it in a soft copy.
CS	**Topic: Introduction to Python Programming** **1. Python programs** · Calculate Simple Interest · Find area and perimeter of a square Write the program code, sample input/output, and mention where this program can be useful in daily life. **2. Answer the following in 3–4 lines each:** a) What are the advantages and disadvantages of Python? b) What is the difference between interactive mode and script mode in Python?
I.P.	**Topic: Introduction to Python Programming** **1. Python in Real Life (Math + Science + Python)** write the Python code for them: · Calculate total marks, percentage & grade for 5 subjects · Find area and perimeter of a rectangle or circle Write the program code, sample input/output, and mention where this program can be useful in daily life. **2. Think Like a Programmer!** Answer the following in 3–4 lines each: a) What are the advantages and disadvantages of Python? b) What is the difference between interactive mode and script mode in Python?
AI	**Project Task:** Use **Google Teachable Machine** to create an AI model by choosing **any one input type** listed below: **Available Project Types (Choose ONE):** 1. **Image Project** – e.g., Facial expressions, objects, hand gestures 2. **Audio Project** – e.g., Voice commands, claps, whistles 3. **Pose Project** – e.g., Yoga poses, sitting/standing detection **Instructions:** Create **at least 2 classes** in your selected model. • Train each class using **multiple samples**. • Test the model with real-time or uploaded data. • Export the model as a **TensorFlow (.zip)** file from Teachable Machine. **Mandatory Submission Requirements:** 1. **Exported AI Model (.zip file)** → Go to "Export Model" → "TensorFlow" → Download the .zip file 2. **A Word Document or PDF (~100 words)** containing: o Name and type of the model you created o Description of the classes used

	○ One real-life application or use case of your model **Submission Format:** Email both the .zip file and the document to: **bhupendra030386@birlaschoolpilani.edu.in** Subject: **AI Practical Project - [Scholar Number] - [Your Name] - Class XI**
PHYSICAL EDUCATION	Write one game of your choice in physical education practical file which include: 1. History of the game 2. Rules of the game 3. Terminology of the game 4. Diagram and dimensions 5. Sports personalities